Appendix C

Biological Resource Reports



BIOLOGICAL RESOURCE ASSESSMENT

Aquatic and Terrestrial Wildlife, and Botanical Resources

Valley's Edge Project
Butte County, California



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BIOLOGICAL RESOURCE ASSESSMENT

Valley's Edge Project

Project Location:

Butte County, California
Section 28, 29, 32, 33 T 22 N, R 02 E
&
Section 4, and 5 T 21 N, R 02 E

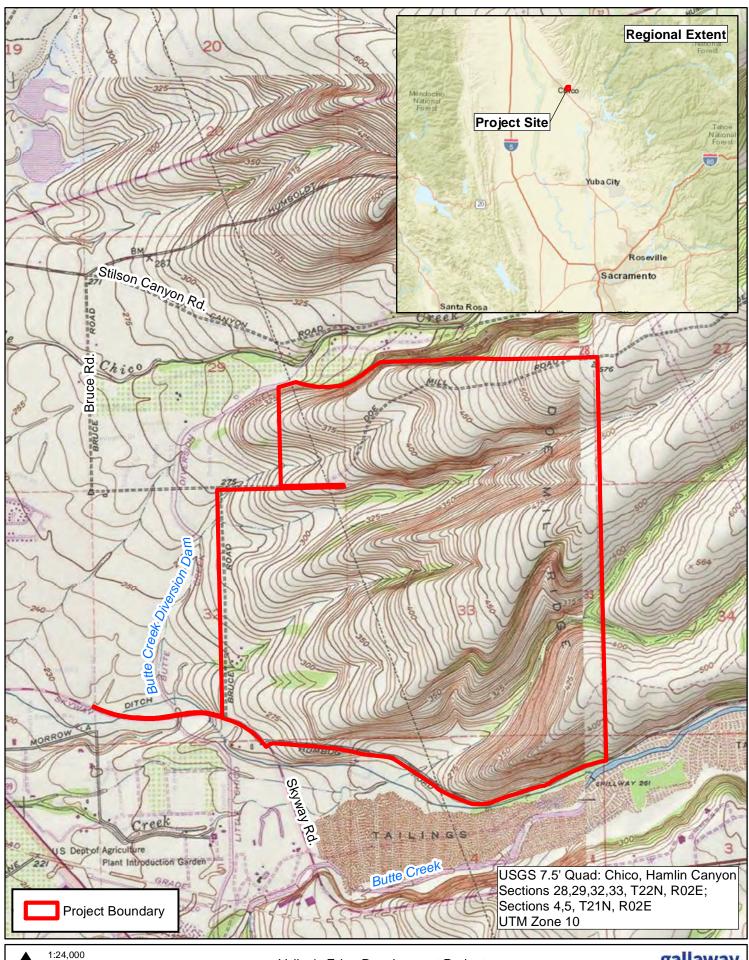
INTRODUCTION

Purpose and Overview

The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive and rare species, and their habitats that occur in the biological survey area (BSA) of the Valley's Edge Project (Project) located east of the City of Chico in unincorporated Butte County, California (Figure 1 and Figure 2). Gallaway Enterprises conducted habitat assessments and botanical surveys in the BSA (the area in which project activities occur and where biological surveys are conducted) to evaluate site conditions and potential Project impacts to biological and botanical species. The proposed Project is an approximately 1,451 acre community development comprised of mixed use residential, mixed use commercial and open space. The BSA is located north of Honey Run Road, east of the Potter Road bike path, and south of Doe Mill Road/E. 20th Street. A utility corridor running west along Skyway Road from the southwest corner of the site is included as part of the Project boundary (Figure 3). Other primary references consulted include species lists and information gathered using United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC), California Department of Fish and Wildlife's Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, literature review, and past botanical and biological surveys conducted on site. The results of the BRA include the findings of biological and botanical surveys, identification of sensitive habitats with potential to occur in the BSA, and recommendations to avoid or minimize impacts.

Project Location and Environmental Setting

The proposed Project is located east of the City of Chico in unincorporated Butte County, California, in the "Chico" USGS Quadrangle, Section 28, 29, 32, 33 Township 22 N, Range 02 E, and Section 4, and 5 Township 21 N, Range 02 E. The Project site is located north of Honey Run Road, east of Potter Road, and south of Doe Mill Road/E. 20th Street at the base of the foothills of the Sierra Nevada mountain range. A utility corridor running west along Skyway Road from the southwest corner of the BSA to Bruce Road is included as part of the Project boundary. Residential developments occur along the northern boundary of the Project. Undisturbed foothills dominated by oak woodland occurs to the east of the

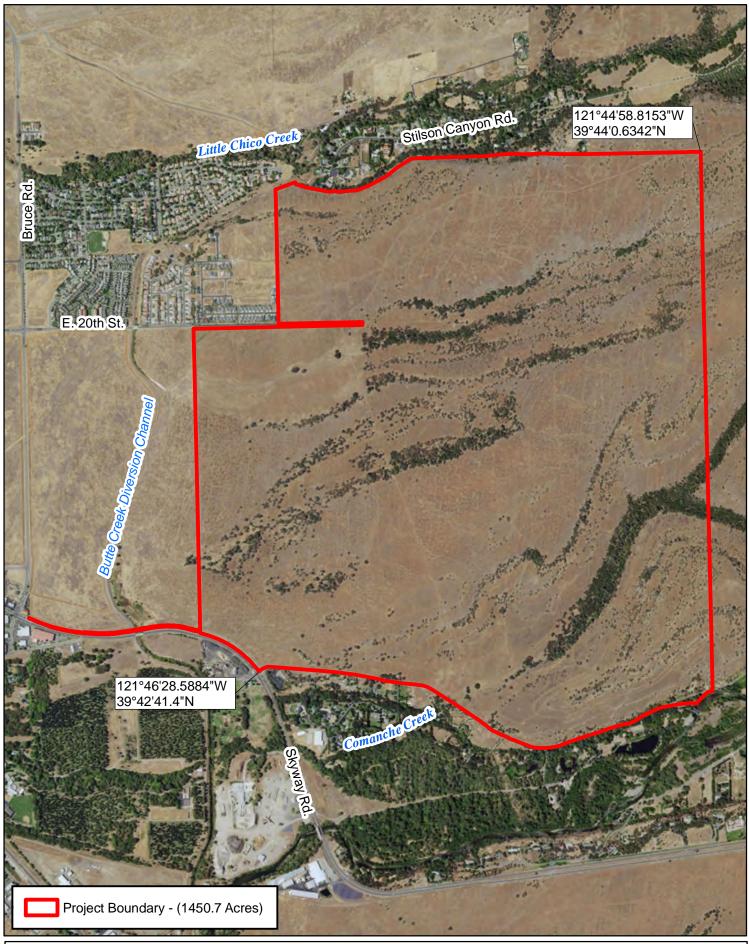


0 1,000 2,000 Feet

Data Sources: ESRI, USGS,

Butte County

Valley's Edge Development Project Regional Location Figure 1



NORTH C

1:18,000

500 1,000 Feet

Data Sources: ESRI (Base map sourced: 05/11/16), USGS, Butte County





1:18,000 0 500 1,000 Feet

Data Sources: USGS, Butte County, Rolls, Anderson & Rolls Civil Engineers, DigitalGlobe 4/21/2017 Valley's Edge Development Project Biological Survey Area Figure 3 Project. Along the southern boundary of the Project is Honey Run Road with Butte Creek and low density housing developments located south of the roadway. To the west of the Project is Potter Road and open land containing vernal complexes.

Within the BSA, the vegetation community is comprised of blue oak-foothill pine woodland and annual grassland habitat with scattered wetlands occurring within the annual grassland habitat. The Project site is currently used for cattle grazing, rock harvesting, and storing bee hive boxes. The topography of the site is varied with much of the site sloping with a western aspect but is cut by several small valleys and a small bluff in the southeastern corner of the site. Unnamed ephemeral drainages flow through the small valleys present and Comanche Creek flows from east to southwest through the southeastern portion of the BSA. All of the unnamed drainages within the Project site flow offsite to the west into the Butte Creek Diversion Channel. The average elevation is 415 feet above mean sea level. Soils within the BSA are primarily gravelly loams and cobbly clays with a shallow restrictive layer, or duripan, frequently occurring between 2 to 10 inches deep.

Project Description

The current Project design includes the construction of 466 acres of mixed use residential development, 34 acres of mixed use commercial development, 44 acres of backbone infrastructure, and 896 acres of open space. The 898 acres of open space includes a 60-90 acre community park, 400 acres for a regional park, and 406 acres for neighborhood parks and open space corridors. An ecological preserve containing vernal pool complexes will be included in the area proposed for open space in the northwest portion of the Project site. Utilities for the Project will run west along Skyway Road from the southern edge of the BSA to Bruce Road and tie into existing facilities. The results of this BRA will be used to identify any sensitive habitats or species that may be present on the site so that these resources can be avoided or mitigated to the extent possible.

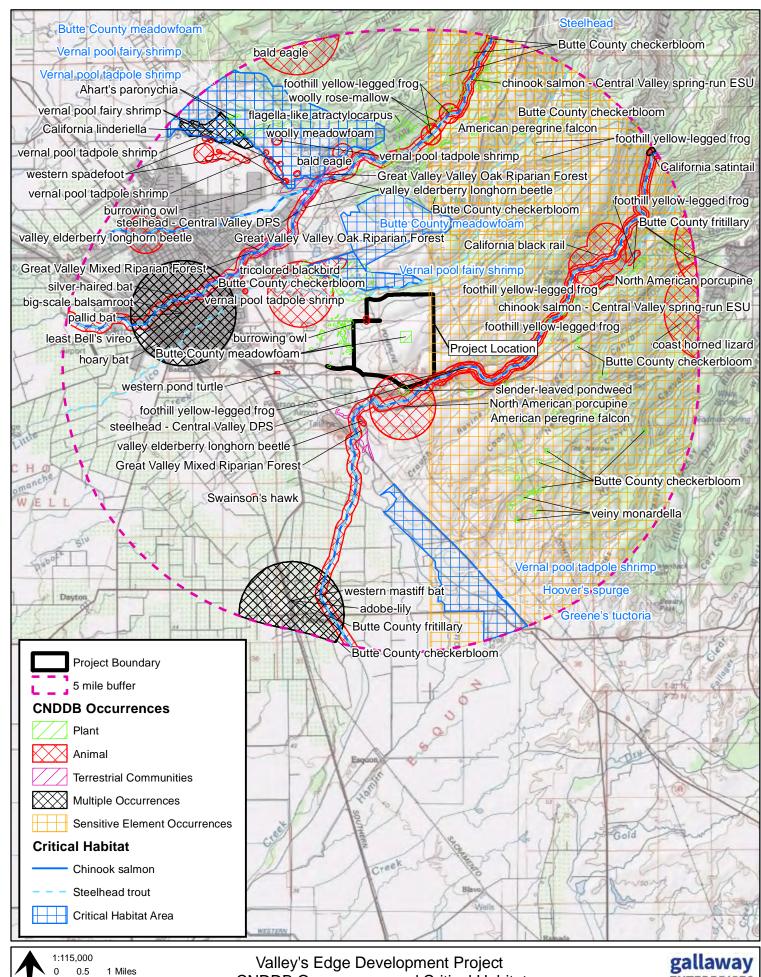
Biological Survey Area

The BSA is the area in which construction, staging and access associated with the proposed project occur and where the focuses of biological surveys are conducted. The BSA for the Project is confined to the Project boundary (**Figure 3**). The BSA is approximately 1,451 acres.

METHODS

References Consulted

Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a five (5) mile radius of the BSA (**Figure 4**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, purposed and candidate species, and their habitats within the BSA used in the preparation of this BRA are:



- The USFWS IPaC Official Species List for the Project area (Appendix A; Species Lists);
- The results of a species record search of the California Department of Fish and Wildlife (CDFW) CNDDB, RareFind 5, for the 7.5 minute USGS Chico (3912167), Hamlin Canyon (3912166), Paradise West (3912176) and Richardson Springs (3912177) quadrangles (Appendix A; Species Lists);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS Chico (39121F7), Hamlin Canyon (39121F6), Paradise West (39121G6) and Richardson Springs (39121G7) quadrangles (Appendix A; Species Lists);
- Gallaway Consulting Biological Resources Assessment from 2006;
- Gallaway Consulting Draft Delineation of Waters of the U.S. from 2006;
- Gallaway Consulting Draft Delineation of Waters of the U.S. from 2007;
- Gallaway Consulting Butte County Meadowfoam Surveys from 2007, 2008 and 2010;
- May and Associates Rare Plant Assessment from 2012;
- Gallaway Enterprises Butte County Meadowfoam Surveys from 2013, 2014, 2015, 2016;
- Protocol-level Wet and Dry Season Federally Listed Large Branchiopod Surveys from 2015 and 2016;
- Gallaway Enterprises Botanical Surveys from 2017; and
- Gallaway Enterprises Delineation of Waters of the U. S. from 2016 (verified in 2018).

Critical Habitat

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

The USFWS Critical Habitat Portal was accessed on December 17, 2018 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

Waters of the United States

Field delineations of waters of the United States were conducted within the Valley's Edge Project site in 2006 and 2007 by Gallaway Consulting, but were never submitted to the U.S. Army Corps of Engineers (Corps) for verification. Additional field visits were conducted by Gallaway Enterprises to update the original delineation efforts in 2014, 2015 and 2016. Based on these additional field visits a draft Delineation of Waters of the United States report was prepared in June 2016 and submitted to the

Corps for verification. This delineation was verified by the Corps on January 2, 2018. The Corps verified a total of 11.18 acres of other waters and 6.25 acres of wetlands as jurisdictional Waters of the U.S. within the BSA.

Habitat Assessment

A habitat assessment of the BSA was conducted initially by Gallaway Consulting in 2006. Subsequent field visits have been conducted within the BSA in 2007, 2008, 2010, 2012, 2013, 2014, 2015, 2016, and 2017 to determine the potential for special-status wildlife and botanical species and their habitats to occur within the BSA. Habitat assessments were conducted by walking transects throughout the entire BSA. Potential habitat when identified for special-status species was evaluated based on vegetation composition and structure, physical features (e.g. soils, elevation), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates). A list of wildlife species observed within the BSA during the 2017 habitat assessment field visits is included as **Appendix B**.

Protocol-level Biological and Botanical Surveys

Surveys for wildlife and botanical species have been conducted within the BSA for numerous years starting in 2006 to determine presence of special-status wildlife and botanical species within the BSA. Protocol-level botanical surveys were conducted for the species determined to have suitable habitat within the BSA in 2006, 2007, 2008, 2010, 2012, 2013, 2015, 2016, and 2017. The most recent 2017 botanical survey report, which includes an observed plant list, is attached to this BRA as **Appendix C**. Based on the habitats present within the BSA, special-status botanical species that have been surveyed for within the BSA include big-scale balsamroot (*Balsamorhiza macrolepis*), round-leaved filaree (*California macrophylla*), flagella-like atractylocarpus (*Campylopodiella stenocarpa*), pink creamsacs (*Castilleja rubicundula var. rubicundula*), dwarf downingia (*Downingia pusilla*), Hoover's spurge (*Euphorbia hooveri*), Butte County fritillary (*Fritillaria eastwoodiae*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Red Bluff dwarf rush (*Juncus leiospermus var. leiospermus*), Butte County meadowfoam (*Limnanthes floccosa ssp. californica*), slender Orcutt grass (*Orcuttia tenuis*), Ahart's paronychia (*Paronychia ahartii*), Butte County checkerbloom (*Sidalcea robusta*), Butte County golden clover (*Trifolium jokerstii*), and Greene's tuctoria (*Tuctoria greenei*).

Protocol-level wet-season listed large branchiopod surveys were conducted by Gallaway Enterprises senior botanist, Elena Gregg (10(a)1 recovery permit # TE-13632B-1), during the wet-season of 2014-2015 and dry-season sampling was conducted in 2016 by ECORP Consulting, Inc. to complete the USFWS survey protocol for listed large branchiopods. The wet-season and dry-season sampling reports are attached to this BRA as **Appendix D**.

RESULTS

Habitat Types

Five habitat types occur within the BSA as described below. Their distribution within the BSA is depicted in **Figure 5**.

Terrestrial

Blue Oak-Foothill Pine

Blue Oak-Foothill Pine woodland occurs throughout the BSA but is frequently concentrated in bands associated within the creeks and valleys. The dominant species within this habitat type consist of blue oak (*Quercus douglasii*) with foothill pine (*Pinus sabiniana*) and interior live oak (*Quercus wisliseni*) interspersed. Associated shrub species include buckbrush (*Ceanothus cuneatus*), and California coffeeberry (*Rhamnus californica*). The ground cover is mainly comprised of annuals, such as soft brome (*Bromus hordeaceus*), wild oats (*Avena barbata*), and medusa head grass (*Elymus caput-medusae*). Many species of amphibians, reptiles, birds, mammals inhabit and breed in blue oak-foothill pine communities. Blue oaks produce an abundant seed crop every two to three years which provide an important food resource for many species such as acorn woodpeckers (*Melanerpes formicivorus*), mule deer (*Odocoileus hemionus*), rodents, and black bear (*Ursus americanus*). Scrub jays, yellow-billed magpies, western gray squirrels, and California ground squirrels that cache acorns have an important role in enhancing oak germination (Mayer & Laudenslayer 1988).

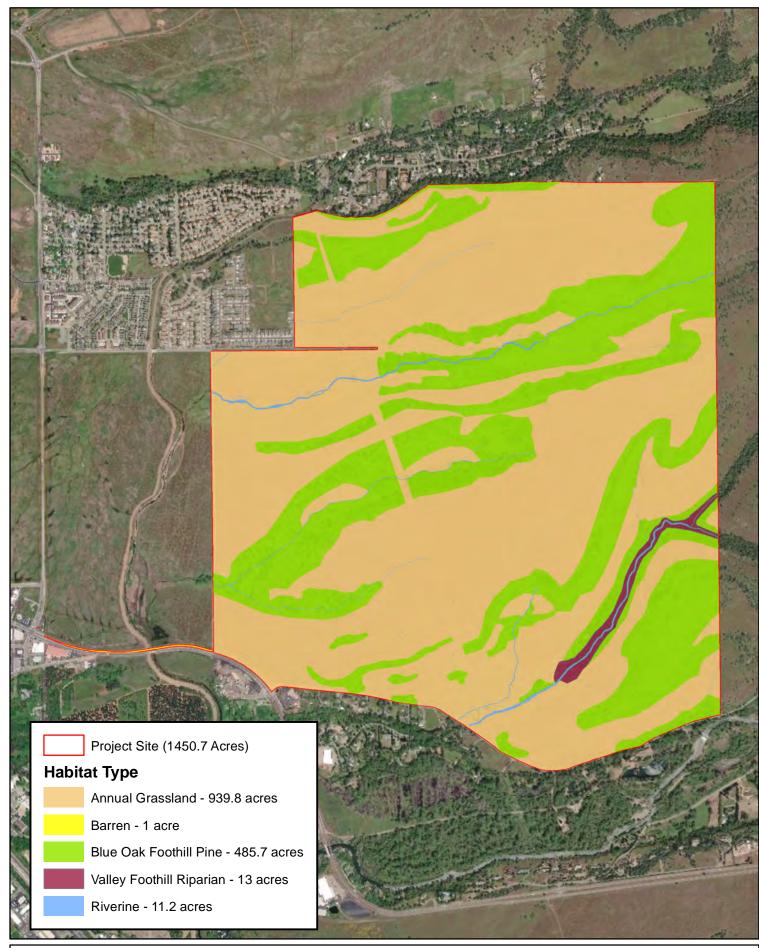
Annual Grassland

Annual grassland habitat is the dominant habitat type in the BSA. It occurs over most of the sloped land within the BSA. The dominant species within this habitat type are medusa head grass (*Elymus caputmedusae*), soft brome (*Bromus hordeaceus*), wild oats (*Avena barbata*), and rat-tail six-weeks grass (*Festuca myuros*). Common species that are found breeding in this habitat include a variety of ground nesting avian species and small mammals. Annual grassland habitats and species composition depend largely on annual precipitation, fire regimes and grazing practices (Mayer and Laudenslayer 1998). Wildlife species use grassland habitat for foraging but often require some other habitat characteristic such as rocky out crops, cliffs, caves or ponds in order to find shelter and cover for escapement (Mayer and Laudenslayer 1998).

Aquatic

<u>Riverine</u>

There are several ephemeral and 2 intermittent drainages within the BSA. These drainages are characterized by bedrock or cobbly substrates, shallow flows, and are typically dry by the early summer months. Minimal annual vegetation occurs within the bed of these drainages with the banks typically dominated by a tree canopy. Many wildlife species rely on aquatic insects as a significant source of food. Many wildlife species also use riverine habitats for a source of water for hydration.





1:18,200

500 1,000 Feet

Data Sources: ESRI, Butte County, DigitalGlobe 4/21/2017

Wetlands in Annual Grassland

Depressional wetlands often occur in annual grassland habitats. Within the annual grassland portions of the BSA seasonal wetlands, vernal pools, vernal swales, and wet meadows occur. Much of the BSA is composed of sloped land, which limits the areas where ponded water can form. As such, the wetland features within the BSA tend to be concentrated on the relatively flat areas or where impediments create the conditions for ponded water (i.e. along or adjacent to roads). Where wetlands do occur, they are largely characterized by thin soils over volcanic mud flows, which has resulted in the majority of the vernal features having flashy, or short, ponding durations. Many wildlife species utilize wetland habitats for a source of water and food.

Non-Vegetated

Barren

Barren habitat is typified by non-vegetated soil, rock, paved roads and gravel. There are dirt access roads present within the BSA and portions of existing asphalt roads occur within the utility corridor. The dirt access roads are largely non-vegetated. The barren habitat type provides low quality habitat to wildlife.

Critical Habitat

There is no USFWS critical habitat present within the BSA. There is critical habitat designated for Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley steelhead (*Oncorhynchus mykiss irideus*) outside of the southeast edge of the BSA associated with Butte Creek. However, the Project activities will have no effect on Butte Creek or the designated critical habitat for Central Valley chinook salmon and steelhead.

Sensitive Natural Communities

No designated Sensitive Natural Communities (SNC) occur within the BSA. The annual grassland habitat within the BSA contains large portions of the Tuscan Formation which is derivative of mudflows and there are individual vernal pools/swales scattered over the BSA could be classified as Northern Volcanic Mudflow Vernal Pools; however, this SNC has not been designated by the State as occurring within the BSA. Further, the Project is proposing to avoid large portions of vernal pools/swales and any impacts to vernal pools/swales within the BSA will be required to be mitigated through the Clean Water Act.

Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

• Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);

- Listed as a SSC by CDFW or protected under the California Fish and Game Code (i.e Fully Protected Species);
- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA, §15380).

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the BSA. A summary of assessed special-status species and their potential for occurrence within the BSA are described in **Table 1**.

Table 1. Special-status species and their potential to occur in the BSA

Common Name (Scientific Name)	<u>Status</u> Fed/State/CNPS	Associated Habitats	Potential for Occurrence		
SENSITIVE NATURAL COMMUN	SENSITIVE NATURAL COMMUNITIES				
Northern volcanic mudflow vernal pool	_/SNC/_	State designated land characterized by vernal pools occurring on tertiary volcanic mudflows/lahars.	None. This SNC has not been designated within the BSA.		
PLANTS					
Big-scaled balsamroot (Balsamorhiza macrolepis)	_/_/1B.2	Woodland, ultramafic, valley & foothill grassland (BP: March-June).	None. Not observed during the multiple protocol-level surveys.		
Round-leaved filaree (California macrophylla)	_/_/1B.1	Cismontane woodland, valley and foothill grasslands (BP: March-May).	None. Not observed during the multiple protocol-level surveys.		
Flagella-like atractylocarpus (Campylopodiella stenocarpa)	_/_/2B.2	Cismontane woodland.	None. Not observed during the multiple protocol-level surveys.		
Pink creamsacs (Castilleja rubicundula var. rubicundula)	_/_/1B.2	Chaparral, meadow & seep, ultramafic, valley & foothill grassland (BP: April-June).	None. Not observed during the multiple protocol-level surveys.		

Common Name (Scientific Name)	<u>Status</u> Fed/State/CNPS	Associated Habitats	Potential for Occurrence
Dwarf downingia (Downingia pusilla)	_/_/2B.2	Vernal pools. (BP: March-May)	None. Not observed during the multiple protocol-level surveys.
Shield-bracted Monkeyflower (Erythranthe glaucescens)	_/_/4.3	Serpentine seeps and stream banks. (BP: February-August)	Known. Species is present within the BSA.
Butte County fritillary (Fritillaria eastwoodiae)	_/_/3.2		None. Not observed during the multiple protocol-level surveys.
Boggs Lake hedge-hyssop (Gratiola heterosepala)	_/_/1B.2	Freshwater marsh, Marsh & swamp, Vernal pool, Wetland. (BP: April- August)	None. Not observed during the multiple protocol-level surveys.
Red Bluff dwarf rush (Juncus leiospermus var. leiospermus)	_/_/1B.1	Vernal pools and mesic areas. (BP: March-May).	None. Not observed during the multiple protocol-level surveys.
Butte County Meadowfoam (Limnanthes floccosa ssp. californica)	FE/SE/1B.1	Vernal pools and swales (BP: March-May).	Known. Observed. The CNNDB recorded location is inaccurate.
Woolly meadowfoam (Limnanthes floccosa ssp. floccosa)	_/_/4.2	Vernal pools and wetlands (BP: March-May).	Known. Species is present within the BSA.
Hairy Orcutt grass (Orcuttia pilosa)	FE/SE/1B.1	Vernal pools. (BP: May- September)	None. Not observed during the multiple protocol-level surveys.
Slender Orcutt grass (Orcuttia tenuis)	FT/SE/1B.1	Vernal pools, often gravelly. (BP: May- September)	None. Not observed during the multiple protocol-level surveys.
Ahart's paronychia (Paronychia ahartii)	_/_/1B.1	Cismontane woodland, valley & foothill grassland, vernal pool, wetland (BP: March-June).	None. Not observed during the multiple protocol-level surveys.
Bidwell's Knotweed (Polygonum bidwelliae)	_/_/4.3	Volcanic thin soils. (BP: April-July)	Known. Species is present within the BSA.

Common Name (Scientific Name)	<u>Status</u> Fed/State/CNPS	Associated Habitats	Potential for Occurrence
Butte County checkerbloom (Sidalcea robusta)	_/_/1B.2	Chaparral, and cismontane woodland. (BP: April-June).	None. Not observed during the multiple protocol-level surveys.
Butte County golden clover (Trifolium jokerstii)	_/_/1B.2	Vernal pools and wetland. (BP: late March-May).	None. Not observed during the multiple protocol-level surveys.
Greene's tuctoria (Tuctoria greenei)	FE/SR/1B.1	Vernal pools. (BP: May- July)	None. Not observed during the multiple protocol-level surveys.
INVERTEBRATES			
Vernal pool fairy shrimp (Branchinecta lynchi)	FT/_/_	Valley & foothill grassland, vernal pool, and wetland.	None. Not observed during the protocollevel surveys.
Vernal pool tadpole shrimp (Lepidurus packardi)	FE/_/_	Valley & foothill grassland, vernal pool, wetland.	None. Not observed during the protocollevel surveys.
Valley elderberry longhorn beetle (Desmocerus californicus dimorphus)	FT/_/_	Blue elderberry shrubs usually associated with riparian areas.	None. There are no elderberry shrubs suitable for VELB occupation in the BSA.
FISH			
There are no streams within th	e BSA suitable for fi	ish habitat.	
AMPHIBIANS			
Foothill yellow-legged frog (Rana boylii)	_/sc/_	Streams with consistent flow, slow side waters with cobble and boulders for oviposition.	None. The streams within the BSA do not provide suitable habitat for this species.
Western spadefoot (Spea hammondii)	_/SSC/_	Cismontane woodland, coastal scrub, valley & foothill grassland, vernal pool, and wetland.	Moderate. There is suitable habitat only within the northwestern portion of the BSA where there are deeper soils and aquatic habitat.
REPTILES			
Giant garter snake (Thamnophis gigas)	FT/ST/_	Agricultural wetlands, irrigation and drainage canals, low gradient	None. The streams within the BSA do not provide suitable habitat

for this species. ses, and uplands. of water None. The streams within the BSA do not provide suitable ponded habitat for this species.				
None. The streams within the BSA do not provide suitable ponded				
Known. Observed once in 2008.				
Low. There is suitable foraging and nesting habitat within the BSA, but no active CNDDB occurrences within 10 miles.				
None. There is no suitable nesting or foraging habitat within the BSA.				
MAMMALS				
wities e. Moderate. There is suitable roosting habitat within mature trees and snags that occur in the BSA.				
eas and None. There is no				
il.				

CODE DESIGNATIONS		
FE = Federally-listed Endangered	SNC = CDFW Sensitive Natural Community	
FT = Federally-listed Threatened		
FC = Federal Candidate Species	CRPR 1B = Rare or Endangered in California or	
	elsewhere	

SE = State-listed EndangeredCRPR 2 = Rare or Endangered in California, moreST = State-listed Threatenedcommon els ewhereSR = State-listed RareCRPR 3 = More information is neededSC = State Candidate SpeciesCRPR 4 = Plants with limited distribution

SSC = State Species of Special Concern

0.1 = Seriously Threatened

FP =CDFW Fully Protected Species

0.2 = Fairly Threatened

0.3 = Not very Threatened

Potential for Occurrence: for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, over-winter, or stop-over in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:

None: The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficients urveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.

Low: Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.

Moderate: Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA.

Pre-construction surveys may be required.

<u>High:</u> Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required.

Known: Species was detected in the BSA or a recent reliable record exists for the BSA.

Endangered, Threatened and Rare Plants

Multiple years of protocol-level botanical survey have been conducted within the BSA with the most recent survey occurring in 2017 (**Appendix C**). Based on the results of the multiple years of botanical surveys conducted, one state and federally listed plant, Butte County Meadowfoam (BCM), and 3 CNPS rank 4 plants, shield-bracted monkeyflower, Bidwell's knotweed, and wooly meadowfoam, have been observed within the BSA. No other special-status plant species have been observed within the BSA.

Butte County Meadowfoam

BCM is listed as endangered under both Federal and State Endangered Species Act (ESA), as well as listed as seriously endangered in California by the CNPS. BCM occurs in grassland areas with vernal swales, vernal pools with flashy hydrology, and secondarily along the margins of vernal pools with more persistent hydrology. Seed dormancy accounts for fluctuations in populations from year to year. BCM typically begins flowering in early March, and may continue into April or May if conditions are favorable. The current and historical BCM occurrences are found on Red Bluff pediment or strath terraces and tend to be closely aligned with the Redtough-Redswale soil complexes and secondarily aligned with the Doemill-Jokerst soil complexes.

CNDDB Occurrences

One CNDDB occurrence of BCM is located within the BSA (Occurrence # 51), however the location and extent of the CNDDB location is inaccurate. The CNDDB data provided to CDFW has submitted anonymously and inaccurately portrayed the location of BCM.

Status of Butte County Meadowfoam Occurring in the BSA

Butte County meadowfoam is *known* to occur within the BSA based on the results of the past protocollevel botanical surveys conducted. The location of the BCM population within the BSA is depicted in **Figure 6**. This population of BCM is proposed to be completely avoided with a minimum 200-250 foot buffer from planned construction activities. Therefore, the Project will have no effect on BCM.

Woolly Meadowfoam

Woolly meadowfoam is listed as a plant with limited distribution and considered fairly endangered in California by the CNPS. It is found in northern California and its range extends into Oregon. It is found in vernal pools, swales and other mesic habitats. It is an annual herb with a blooming period from March through May, and uncommonly into June. It is found at low to mid-elevation from 60 to 1335 meters above sea level (CNPS 2018).

CNDDB Occurrences

A small population of woolly meadowfoam occurs within the BSA based on past botanical surveys conducted. This population was never reported to the CNDDB. Further, there are recorded CNDB occurrences of wooly meadowfoam within 5 miles of the BSA.

Status of Wooly Meadowfoam Occurring in the BSA

Woolly meadowfoam is *known* to occur within the BSA. This small population of wooly meadowfoam is located in close proximity to the known BCM population present within the BSA (**Figure 6**). Due to its close proximity to BCM, this population of wooly meadowfoam is planned to be completely avoided. Therefore, the Project will have no effect on wooly meadowfoam.

Shield-bracted Monkeyflower

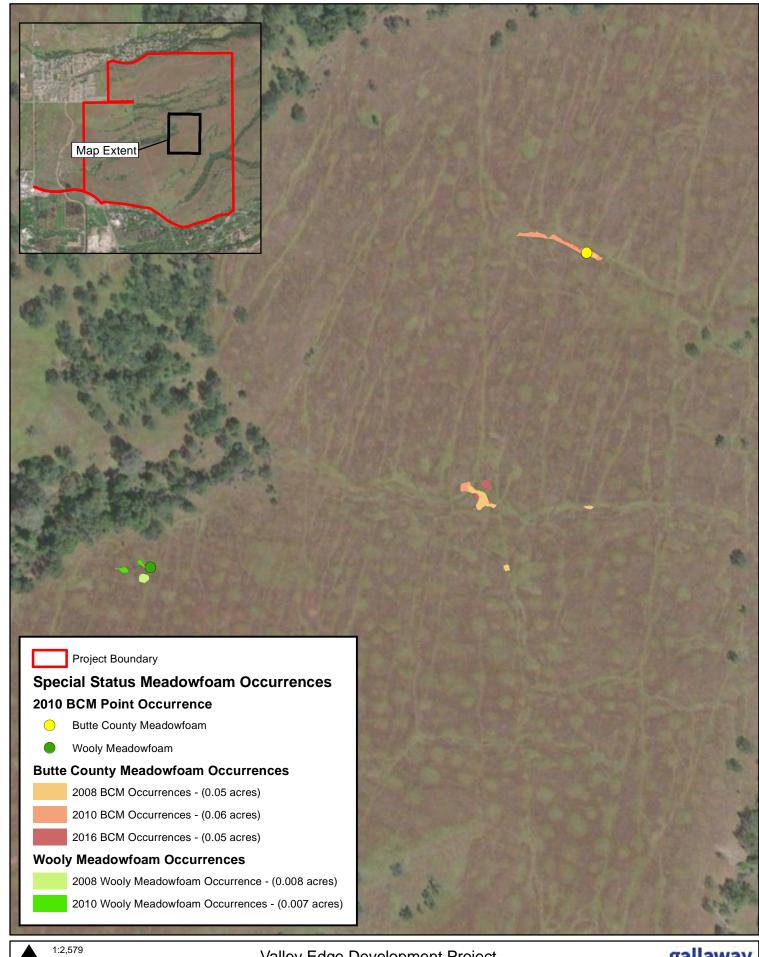
Shield-bracted monkeyflower is listed as a plant with limited distribution and is considered not very endangered in California by the CNPS. The shield-bracted monkeyflower is an annual herb that is found in seeps and streambanks. It typically can be observed blooming starting in February to August, and rarely into September depending on weather and hydric conditions.

CNDDB Occurrences

Plant species with a CNPS Rank of 4 are often not reported to the CNDDB. As such, there are no nearby CNDDB occurrences of shield-bracted monkeyflower. During past botanic surveys within the BSA the shield-bracted monkeyflower was observed; however, the occurrences were not reported to the CNDDB.

Status of Shield-bracted Monkeyflower Occurring in the BSA

Shield-bracted monkeyflower is **known** to occur within the BSA. Within the BSA shield-bracted monkeyflower has been observed within the two intermittent drainages that run through the site. With the exception of a few stream crossings, these drainages are proposed to be avoided and preserved. As such, only a minor amount of impacts may occur to shield-bracted monkeyflower due to the proposed Project.



Bidwell's Knotweed

Bidwell's knotweed is listed as a plant with limited distribution and is considered not very endangered in California by the CNPS. Bidwell's knowteed is a small annual plant that is found on thin volcanic soils with little to no competing vegetation. It has a blooming period of April to July.

CNDDB Occurrences

Plant species with a CNPS Rank 4 are often not reported to the CNDDB. As such, there are no nearby CNDDB occurrences of Bidwell's knotweed. During past botanic surveys within the BSA Bidwell's knotweed was observed; however, the occurrences were not reported to the CNDDB.

Status of Bidwell's Knotweed Occurring in the BSA

Bidwell's knotweed is *known* to occur within the BSA. Within the BSA Bidwell's knotweed has been observed within the thin soils on the Tuscan formation in the northern portion of annual grassland within the BSA (**Figure 5**).

Endangered, Threatened, and Special-Status Wildlife

Multiple years of surveys for wildlife species and their habitats have been conducted within the BSA. Based on the results of the multiple years of surveys conducted, the following special-status species have been determined to have potential to occur within the BSA; western spadefoot, burrowing owl, Swainson's hawk, pallid bat, western mastiff bat, and western red bat, and a variety of migratory bird and raptor species protected by the MBTA. Prior to the Camp Fire there were approximately 4 isolated blue elderberry (*Sambucus Mexicana*) shrubs located in non-riparian areas, which provided marginal habitat for valley elderberry longhorn beetles.

While there is marginally suitable habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, protocol-level wet and dry season surveys conducted in 2015 and 2016 for these invertebrates within the BSA resulted in negative findings (**Appendix D**). As such, the Project will have no effect on vernal pool fairy shrimp or vernal pool tadpole shrimp.

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle (VELB) are listed as a federally threatened species. They are a medium sized beetle approximately ½ to 1 inch long with antennae as long as their slender bodies. It has a wide range in the Central Valley of California from Fresno County to southern Shasta County. VELB are nearly always found on or near blue elderberry and are reliant on their host species for all stages of life. Females lay their eggs on the bark and the larvae burrow into the stems once they have hatched. The larval stage may last for two years within the stem and then the larvae bore out of the stem and then become pupae. The pupae metamorphose into adults. Adults are active from March to June, foraging and mating. After metamorphosis the adult bores its way out of the stem, which is evident from small exit holes on the stems. VELB require stems of elderberries to be at least one inch in diameter to be suitable habitat for the larval stage. Often the exit holes are the only evidence that a particular elderberry bush has been used by VELB; however, it is rarely apparent that a particular elderberry is

being used by VELB. Larval galleries can be found in stems without exit holes. The massive reduction in riparian habitat from human conversion is the largest threat to this species (USFWS 2009).

CNDDB Occurrences

There is one CNDDB occurrence 0.75 miles south of the BSA, near the Durham mutual canal, southwest of Chico. This occurrence was documented in 1995.

Status of Valley Elderberry Longhorn Beetle Occurring in the BSA

Prior to the Camp Fire which burned most of the project area in November 2018 there were a few scattered, isolated blue elderberry bushes within non-riparian areas or growing in uplands at the base of rock walls. These shrubs were destroyed in the Camp Fire, thus there is no potential for VELB to occur within the project site.

Western Spadefoot

Western spadefoot is a California Species of Special Concern. Its range is from south Redding, through the Central Valley, and along the coast in southern California down to Baja California. It has several distinguishing features such as vertical pupils and sickle shaped keratinous "spades" on the hind feet to help dig an underground refuge that it is dormant in during the dry season. It emerges during the wet season once breeding conditions are favorable. It uses vernal pools, seasonal wetlands, cattle tanks, and pools of intermittent streams (Zeiner et al. 1990). Urban and agricultural developments are the largest threat to this species as it removes the availability of its main breeding habitat, standing rainwater pools (Nafis 2014).

CNDDB Occurrences

There is one CNDDB occurrence of western spadefoot breeding habitat approximately three (3) miles to the northwest of the BSA. It was in an intermittent creek within grassland, surrounded by numerous vernal pools, swales, and intermittent creeks. 500-plus tadpoles were observed in 2000 and the record was last updated in 2007. The stream is surrounded by developments, which have the potential to make the stream perennial. The other CNDDB occurrence of western spadefoot within 5 miles of the BSA is adjacent to the 2000 occurrence and was recorded in 2006 and last updated in 2007. Many individuals were detected in the grassland. They site threats by encroaching development, night time ORV use through vernal pools, and illegal dumping.

Status of Western Spadefoot Occurring in the BSA

Since the western spadefoot spends most of its life underground, they require deep enough soils to burrow in. There is only one portion of the BSA that contains suitable aquatic habitat and deep enough soils to potentially support western spadefoot. This potential habitat is in the proposed preserve area in the northwestern portion of the BSA (**Figure 5**). Due to the shallow soils over much of the remaining portions of the BSA and the flashy nature of the wetlands present, there is no habitat for western spadefoot elsewhere in the BSA. As such, the Project will have no effect on the western spadefoot.

Burrowing Owl

The burrowing owl is listed as a California Species of Special Concern and is federally protected under the Migratory Bird Treaty Act. It is a small migratory owl that lives in grasslands and takes over the burrows of small mammals for its nest. Distribution of burrowing owls is from Canada to Central Mexico. Some burrowing owls winter in California, while others use the habitat during the summer. The burrowing owl in California has been extirpated as a breeding species during the last 10-15 years from approximately 8% of its former range. Breeding in central California has been reduced to only three isolated populations. Threats to burrowing owls include conversion of habitat to agriculture and urban development, to the widespread eradication of small burrowing mammals such as ground squirrels (USFWS 2003).

CNDDB Occurrences

There is one CNDDB occurrence of burrowing owls within the northwest boundary of the BSA (Occurrence # 1029, **Figure 4**). This occurrence was first recorded in 2006 and updated in 2008.

Status of Burrowing Owl Occurring in the BSA

Adult burrowing owls have been observed within the northwestern portion of the BSA located approximately 0.25 miles east of the intersection of Doemill Road and Potter Road. Two separate burrows have been observed in this portion of the BSA. The northern burrow was located at the base of a lava rock wall where two adults were seen. The southern burrow was in a pile of rocks, where one adult was seen. Burrowing owls have not been observed since 2008 in any subsequent survey.

Swainson's Hawk

Swainson's hawk is listed as threatened under California ESA. The number of breeding pairs estimated in 2005 was at ~12% of historical levels. The Swainson's hawk is a medium sized hawk with adults possessing dark feathers on the head and breast band with a lighter belly. It is adapted to the open grasslands, and has become increasingly dependent on agriculture, especially alfalfa crops, as native communities are converted to agricultural lands. The diet of the Swainson's hawk in California is varied, but mainly consists of small rodents called voles; however other small mammals, birds, and insects are also taken. Swainson's Hawks often nest peripheral to riparian systems. They will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat. The main threat to Swainson's hawks is the loss of habitat (CDFW 2014).

CNDDB Occurrences

There are 8 CNDDB occurrences within 10 miles of the BSA; however, none of these occurrences are recent, with the most recent observed in 1998 and has not since been updated.

Status of Swainson's Hawk Occurring in the BSA

There is marginal habitat for Swainson's hawk within the BSA. The grasslands within the BSA provide marginal foraging habitat and the oak woodlands and individual oak trees extending into the grassland within the BSA provide suitable hunting perches and nesting habitat. However, there are no recent

CNDDB occurrences of Swainson's hawks within 10 miles of the BSA. As such, there is only a low potential for Swainson's hawk presence within the BSA.

Pallid Bat

The pallid bat is a California Species of Special Concern. The pallid bat is a large, light colored bat known for taking larger, slow moving, low lying insects and occasionally eating them on the ground instead of on the wing. The pallid bat is found in arid to semi-arid regions of the western United States from Canada to Mexico. Pallid bats do not migrate long distances between their summer and winter sites (Sherwin 2005). The Pallid bat has been recorded in many different diurnal roosting habitats such as buildings, barns, cliffs, rock crevices, caves, mines, bridges and hollow trees (CDFG 1988-1990). Ideal diurnal roosts commonly provide an unobstructed entrance, are high above ground, have warm temperatures and are inaccessible to predators. Night roosts can be more exposed and include porches, trees, and open buildings. Females have 1-2 pups per year. Mating occurs from October to February, with parturition occurring from late April to July, and weaning in August. Maternity colonies disperse between August and October. Pallid bats' tendency to roost gregariously and their relative sensitivity to disturbance make them vulnerable to mass displacement. Maternity colonies and hibernating bats are especially sensitive to disturbance. Loss or modification of foraging habitat due to urban development poses a potential threat.

CNDDB Occurrences

There is one CNDDB occurrence two (2) miles to the west of the BSA as a non-specific area in Chico, CA. It was recorded in 1992 and last updated in 2006.

Status of Pallid Bat Occurring in the BSA

The BSA contains suitable habitat for the pallid bat within the oak woodlands onsite (**Figure 5**). The oak woodlands within the BSA contain mature blue oaks and snags that have cavities that are suitable roosting habitat for the pallid bat. The expanses of oak woodlands in the BSA also provide suitable diurnal roosting habitat for the pallid bat. In addition, the Project site contains little human disturbance and is bordered by natural areas to the east and west.

Migratory Birds and Raptors

Nesting birds are protected under the Migratory Bird Treaty Act (MBTA) (16 USC 703) and the California Fish and Game Code (CFGC) (§3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant

thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

CNDDB Occurrences

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDB because they are abundant and widespread.

Status of Migratory Birds and Raptors occurring in the BSA

There is suitable nesting habitat for a variety of ground, shrub and tree nesting avian species throughout the BSA.

REGULATORY FRAMEWORK

The following describes federal, state, and local environmental laws and policies that are relevant to the CEQA review process.

Federal

Waters of the United States, Clean Water Act, Section 404

The Corps and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (§404). The term "waters of the United States" is an encompassing term that includes "wetlands" and "other waters." Wetlands have been defined for regulatory purposes as follows: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas." other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either "endangered" or "threatened." Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of "candidate" species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. "Proposed" species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31 in the Central Valley). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "species of special concern" receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Game Code (§3503.5)

The California Fish and Game Code (CFGC) (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Lake and Streambed Alteration Agreement, CFGC (§1602)

The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The California Fish and Game Code (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed Project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds... except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Clean Water Act, Section 401

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which

are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a Project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Rare and Endangered Plants

The California Native Plant Society (CNPS) maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the 'take' prohibition "the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way."

CONCLUSIONS AND RECOMMENDATIONS

Endangered, Threatened, and Rare Plants

The Project has been designed to completely avoid impacts to BCM and wooly meadowfoam. As such, the Project will have no effect on BCM or wooly meadowfoam. However, due to their locations within the BSA, the Project may impact populations of the CNPS Rank 4 species shield-bracted monkeyflower and Bidwell's knotweed.

CNPS Rank 4 Plant Species

Mitigation options recognized by the CNPS for impacts to shield-bracted monkeyflower and Bidwell's knotweed include:

- 1. The Project proponent should design the Project to avoid or minimize impacts to areas where special-status botanical species occur to the greatest extent feasible and maintain protective elements such as, fencing, open space or conservation easements, and/or buffer zones around suitable habitat where special-status botanical species occur prior to construction activities and throughout construction activities and/or;
- 2. The Project proponent may restore or preserve a designated area, which contains suitable habitat elements, within the Project site to accommodate for species impacted by Project activities. The restored or preserved area will use transplants, artificial propagations or seed transfers from impacted populations to populate the restored or preserved area using guidelines from the California Native Plant Society Rare Plant Scientific Advisory Committee (1998) Policy On Mitigation Guidelines Regarding Impacts To Rare, Threatened, And Endangered Plants, and/or;
- 3. If the Project proponent cannot completely avoid impacts to special-status botanical species then the CDFW must be notified and given a reasonable opportunity to harvest plants or seeds.

Endangered, Threatened, and Special-Status Wildlife

The Project will have no effect on vernal pool fairy shrimp, vernal pool tadpole shrimp or western spadefoot. However, the Project may result in impacts to pallid bats, burrowing owls, Swainson's hawks and a variety of other migratory birds and raptors.

Pallid Bats

To minimize impacts to bat species protected by the CFGC the following are recommended avoidance and minimization measures:

 Mature trees should be removed and/or fallen between September 16 – March 15 outside of the bat maternity season. Trees should be removed at dusk to minimize impacts to roosting bats.

Burrowing Owls

To minimize impacts to burrowing owls the following are recommended avoidance and minimization measures:

- Construction activities should occur outside of the western burrowing owl nesting season (February 1 – August 31). If construction cannot be conducted outside of the nesting season then the following avoidance and minimization measures shall be implemented.
 - For construction occurring during the breeding season (February 1 August 31), prior to any ground disturbing activities within the site, a pre-construction survey for western burrowing owls shall be conducted by a qualified biologist within 14 days of ground disturbing activities per the recommendations described in the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993).
 - If an active burrowing owl nest is observed within 250 feet of the project footprint, then a 250 foot buffer should be established and CDFW contacted for further consultation.

Swainson's Hawks

The following are avoidance and minimization measures recommended in order to avoid and minimize potential impacts to Swainson's hawks.

- If construction is to take place during the nesting season (March 1st August 31st) then a pre-construction survey for Swainson's hawk will be conducted by a qualified biologist. The survey shall be conducted within seven (7) days prior to the start of construction activities to determine presence or absence of nesting Swainson's hawk.
- If a Swainson's hawk is observed nesting within the project area, or within ¼ mile of the project area, then a ¼ mile to 500 foot radius buffer will be established depending on the nesting pair's level of disturbance around construction equipment. Fencing or other appropriate equipment will be used to indicate the buffer. Work will not be allowed in the buffer until the young have fledged (able to fly) and are no longer dependent on the nest or the nest fails as determined by a qualified biologist.

Migratory Birds and Raptors

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 August 31).
- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
 - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.
 - o If an active nest (i.e. containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails as determined by a qualified biologist. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

Other Natural Resources

Waters of the United States

If the Project actions affect the ordinary high water mark and/or vegetation associated with any Waters of the U.S. which include but are not limited to, intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, vernal pools or natural ponds, then the Project proponent will need to obtain the following:

- Prior to any discharge or fill material into Waters of the U.S., authorization under a Nationwide Permit or Individual Permit shall be obtained from the COE. For fill requiring a COE permit, a water quality certification from the Regional Water Quality Board (Clean Water Act §401) shall also be obtained prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of or alter the bed, channel, or bank of any
 perennial, intermittent or ephemeral creeks, notification of streambed alteration shall be
 submitted to the CDFW, and if required, a Lake and Streambed Alteration Agreement (§1602)
 shall be obtained.

Mitigation requirements for the fill of waters of the U.S. will be implemented through an onsite restoration plan, and/or an In Lieu Fund and/or a certified conservation bank with a Service Area that

covers the proposed Project area. These agreements, certifications and permits may be contingent upon successful completion of the CEQA process.

Oak Woodland

The BSA contains a significant area of oak woodlands. An oak canopy evaluation was conducted within the BSA by Gallaway Enterprises in 2017. This oak canopy evaluation involved the GIS mapping of the oak canopy within the BSA and the use of survey plots to ground-truth and collect data to estimate the number of trees within the oak canopy mapped. The resulting acres of oak canopy mapped was a total of 239 acres with the average of 23 trees per an acre of canopy. A minimal amount of impacts to oak trees will occur due to the initial construction of the basic infrastructure associated with the Project. Due to the minimal amount of impacts, the design of the overall project to minimize impacts and the proposed preservation of a total of 173 acres of oak woodland canopy within the BSA, no mitigation is required for the initial infrastructure construction activities. The construction of the subsequent phases of the Project will require compliance with the City of Chico CMC 16.66 Tree Preservation Regulations since the Project site is proposed to be annexed by the City of Chico prior to the start of the development activities.

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Appendix A

United States Fish and Wildlife Services, IPAC Species List California Native Plant Society, Species List California Department of Fish and Wildlife, California Natural Diversity Database, Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To: December 17, 2018

Consultation Code: 08ESMF00-2019-SLI-0617

Event Code: 08ESMF00-2019-E-01855 Project Name: Valley's Edge Development

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 (916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-0617

Event Code: 08ESMF00-2019-E-01855

Project Name: Valley's Edge Development

Project Type: DEVELOPMENT

Project Description: The project is a mixed use community development project which

includes residential and commercial buildings as well as a school, parks,

and open space preserves.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.72081957651404N121.7637227531963W



Counties: Butte, CA

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME STATUS

Giant Garter Snake *Thamnophis gigas*

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME STATUS

California Red-legged Frog Rana draytonii

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/2891

Fishes

NAME STATUS

Delta Smelt Hypomesus transpacificus

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/321

Threatened

Endangered

Endangered

Endangered

Event Code: 08ESMF00-2019-E-01855

Insects

NAME STATUS

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/7850

Habitat assessment guidelines:

https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf

Crustaceans

NAME STATUS

Conservancy Fairy Shrimp Branchinecta conservatio

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8246

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp *Lepidurus packardi*

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME STATUS

Butte County Meadowfoam Limnanthes floccosa ssp. californica

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/4223

Greene's Tuctoria *Tuctoria greenei* Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/1573

Hairy Orcutt Grass Orcuttia pilosa Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/2262

Hoover's Spurge Chamaesyce hooveri

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/3019

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 24 items - Mon, Dec. 17, 2018 19:35 ET c

- During each visit, we provide you with an empty "Plant Press" for collecting items of interest.
 Several report formats are available. Use the CSV and XML options to download raw data.

DLLL		necked items check all check none			
open	save	scientific	common	family	CNP
=	•	Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	List 1B.
≧	•	Cardamine pachystigma var. dissectifolia 🚳	dissected-leaved toothwort	Brassicaceae	List 1B.
=	✓	<u>Castilleja rubicundula</u> var. <u>rubicundula</u>	pink creamsacs	Orobanchaceae	List 1B.
Ğ	•	Clarkia gracilis ssp. albicaulis 🕮	white-stemmed clarkia	Onagraceae	List 1B.
≧	•	Cryptantha crinita 🛱	silky cryptantha	Boraginaceae	List 1B.
≧	✓	Downingia pusilla 🗯	dwarf downingia	Campanulaceae	List 2B.
≧	✓	Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	List 1B.
≧	✓	Fritillaria eastwoodiae 🗯	Butte County fritillary	Liliaceae	List 3.2
≧	✓	Fritillaria pluriflora	adobe-lily	Liliaceae	List 1B.
≧	✓	Gratiola heterosepala 🗯	Boggs Lake hedge- hyssop	Plantaginaceae	List 1B.
≧	✓	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	Lis ¹
≧	✓	Imperata brevifolia 🗯	California satintail	Poaceae	List 2B.
=	✓	Lasthenia glabrata ssp. coulteri 🗯	Coulter's goldfields	Asteraceae	List 1B.
Ğ	•	Limnanthes floccosa ssp.	Butte County meadowfoam	Limnanthaceae	List 1B.
≧	•	Monardella venosa	veiny monardella	Lamiaceae	Lis ¹
≧	•	Orcuttia pilosa 🖾	hairy Orcutt grass	Poaceae	Lis ¹
≧	•	Orcuttia tenuis	slender Orcutt grass	Poaceae	Lis ¹
≧	•	Paronychia ahartii 🗯	Ahart's paronychia	Caryophyllaceae	List 1B.
≧	•	Rhynchospora californica 🗯	California beaked- rush	Cyperaceae	List 1B.
≧	•	Rhynchospora capitellata 🗯	brownish beaked-rush	Cyperaceae	List 2B.
≧	•	Sagittaria sanfordii 🕮	Sanford's arrowhead	Alismataceae	List 1B.
≧	•	Sidalcea robusta 🕮	Butte County checkerbloom	Malvaceae	List 1B.
=	•	Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	List 2B.
≧	•	Tuctoria greenei 🕮	Greene's tuctoria	Poaceae	List 1B.

DELETE unchecked items check all check none



Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

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Smeeting	Flowert Code	Fodoval Status	State Status	Clabal Bank	State Dank	Rare Plant Rank/CDFW
Species adobe-lily	PMLIL0V0F0	Federal Status None	State Status None	Global Rank G2G3	State Rank S2S3	1B.2
Fritillaria pluriflora	1 WEIEGVOI G	140110	None	0200	0200	10.2
Ahart's buckwheat	PDPGN086UY	None	None	G5T3	S3	1B.2
Eriogonum umbellatum var. ahartii	. 2. 3.13333	. 100		00.0		
Ahart's paronychia	PDCAR0L0V0	None	None	G3	S3	1B.1
Paronychia ahartii						
American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Falco peregrinus anatum						
bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Haliaeetus leucocephalus						
big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Balsamorhiza macrolepis						
brownish beaked-rush	PMCYP0N080	None	None	G5	S1	2B.2
Rhynchospora capitellata						
burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Athene cunicularia						
Butte County checkerbloom	PDMAL110P0	None	None	G2	S2	1B.2
Sidalcea robusta						
Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
Fritillaria eastwoodiae						
Butte County meadowfoam	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
Limnanthes floccosa ssp. californica						
Butte County morning-glory	PDCON04012	None	None	G5T3	S3	4.2
Calystegia atriplicifolia ssp. buttensis						
California beaked-rush	PMCYP0N060	None	None	G1	S1	1B.1
Rhynchospora californica						
California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Laterallus jamaicensis coturniculus						
California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Linderiella occidentalis						
California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Imperata brevifolia						
chinook salmon - Central Valley spring-run ESU Oncorhynchus tshawytscha pop. 6	AFCHA0205A	Threatened	Threatened	G5	S1	
coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Phrynosoma blainvillii						
dissected-leaved toothwort	PDBRA0K1B1	None	None	G3G5T2Q	S2	1B.2
Cardamine pachystigma var. dissectifolia			- -		-	_
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Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
flagella-like atractylocarpus	NBMUS84010	None	None	G5	S1?	2B.2
Campylopodiella stenocarpa						
foothill yellow-legged frog	AAABH01050	None	Candidate	G3	S3	SSC
Rana boylii			Threatened			
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	\$2.2	
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Tuctoria greenei						
hoary bat Lasiurus cinereus	AMACC05030	None	None	G5	S4	
Hoover's spurge Euphorbia hooveri	PDEUP0D150	Threatened	None	G1	S1	1B.2
least Bell's vireo Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
North American porcupine	AMAFJ01010	None	None	G5	S3	
Erethizon dorsatum	7 66 . 6 . 6					
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
pallid bat	AMACC10010	None	None	G5	S3	SSC
Antrozous pallidus						
pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
Castilleja rubicundula var. rubicundula						
Red Bluff dwarf rush	PMJUN011L2	None	None	G2T2	S2	1B.1
Juncus leiospermus var. leiospermus						
silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasionycteris noctivagans						
slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Stuckenia filiformis ssp. alpina						
steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 11						
Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Buteo swainsoni						
tricolored blackbird	ABPBXB0020	None	Candidate	G2G3	S1S2	SSC
Agelaius tricolor			Endangered			
valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	



Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
veiny monardella	PDLAM18082	None	None	G1	S1	1B.1
Monardella venosa						
vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta lynchi						
vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Lepidurus packardi						
western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Eumops perotis californicus						
western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Emys marmorata						
western spadefoot	AAABF02020	None	None	G3	S3	SSC
Spea hammondii						
white-stemmed clarkia	PDONA050J1	None	None	G5T3	S3	1B.2
Clarkia gracilis ssp. albicaulis						
woolly meadowfoam	PDLIM02043	None	None	G4T4	S3	4.2
Limnanthes floccosa ssp. floccosa						
woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hibiscus lasiocarpos var. occidentalis						
Yuma myotis	AMACC01020	None	None	G5	S4	
Myotis yumanensis						

Record Count: 50

Appendix B

2017 Observed Wildlife Species List

	e Valley's Edge BRA April 5 and June 1, 2017
Scientific Name	Common Name
Birds	Ta
Aphelocoma californica	Scrub jay
Baeolophus inornatus	Oak titmouse
Buteo lineatus	Red-shouldered hawk
Callipepla californica	California quail
Calypte anna	Anna's Hummingbird
Carduelis psaltria	Lesser gold finch
Cathartes aura	Turkey vulture
Charadrius vociferus	Killdeer
Colaptes auratus	Northern flicker
Corvus brachyrhynchos	American crow
Corvus corax	Common Raven
Empidonax difficilis	Pacific Slope Flycatcher
Geothlypis trichas	Common yellowthroat
Haemorhous mexicanus	House finch
Icterus bullockii	Bullock's oriole
Megaceryle alcyon	Belted Kingfisher
Melanerpes formicivorus	Acorn woodpecker
Meleagris gallopavo	Wild Turkey
Melospiza melodia	Song Sparrow
Melozone crissalis	California Towhee
Mimus polyglottos	Northern mockingbird
Molothrus ater	Brown-headed cowbird
Passer domesticus	House sparrow
Picoides nuttallii	Nuttall's woodpecker
Pipilo maculatus	Spotted Towhee
Poecile atricapillus	Black Capped Chickadee
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Sialia mexicana	Western Bluebird
Sitta carolinensis	White-breasted nuthatch
Spinus tristis	Gold finch
Stelgidopteryx serripennis	Northern rough-winged swallow
Streptopelia decaocto	Eurasian Collard-Dove
Sturnus vulgaris	European starling
Tachycineta bicolor	Tree swallow
Tyrannus verticalis	Western kingbird
Zenaida macroura	Mourning dove
Zonotrichia atricapilla	Golden-crowned Sparrow
Mammals	adden crowned opariow
Canis latrans	Coyote
Lepus californicus	Black-tailed jackrabbit
Sciurus griseus	Western gray squirrel
Reptiles and Amphibians	I western gray squirrer
_	Western rattlesnake
Crotalus oreganus	
Sceloporus occidentalis	Western fence lizard
Pseudacris regilla	Pacific chorus frog

Appendix C

2017 Rare Plant Survey Report



117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

July 24, 2017

Valley's Edge, Inc. Attn: Bill Brouhard 2550 Lakewest Drive, Suite 50 Chico, CA 95928

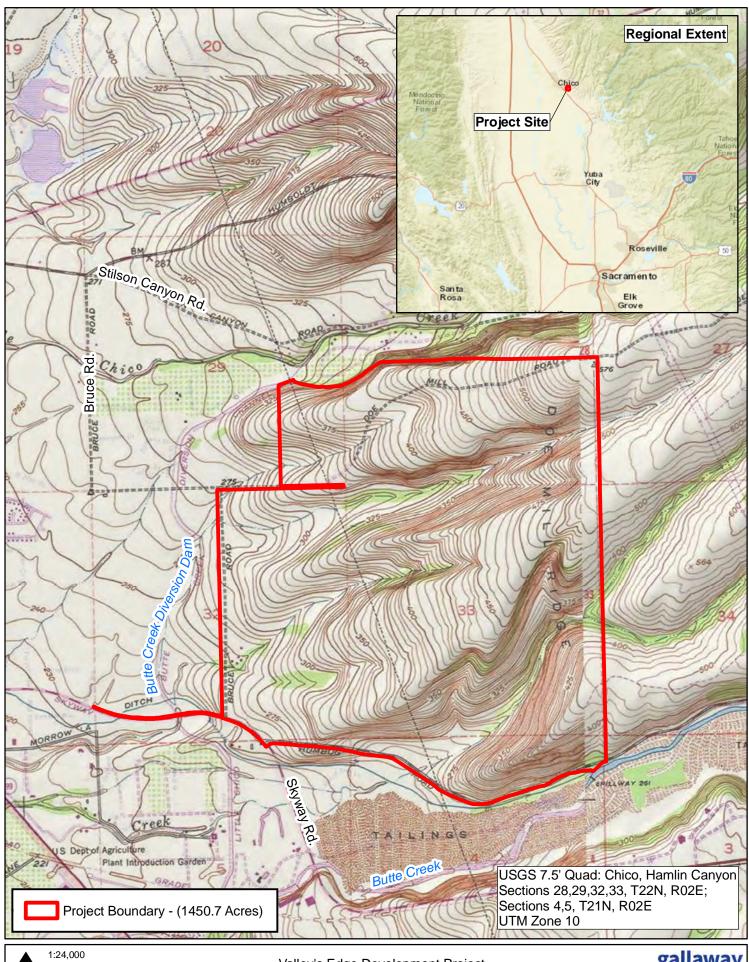
Dear Mr. Brouhard;

As requested, Gallaway Enterprises conducted protocol-level botanical surveys for Butte County meadowfoam (*Limnanthes flocossa* ssp. *californica*, BCM), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*, CNPS Rank 1B.1), Ahart's paronychia (*Paronychia ahartii*, CNPS Rank 1B.1), Butte County golden clover (*Trifolium jokerstii*, CNPS Rank 1B.2), and Butte County checkerbloom (*Sidalcea robusta*, CNPS Rank 1B.2) within the Valley's Edge Project (Project) site on April 3, 4 and 5, and June 1, 2017. All of these plants are a California Native Plant Society (CNPS) Rank 1B¹ species and BCM is federally and state listed as endangered, therefore, the survey was conducted per California Department of Fish and Wildlife (DFW) guidelines as well as US Fish and Wildlife Service (USFWS) guidelines.

Location

The Project is located within USGS Chico Quadrangle, Section 28, 29, 32, and 33 of Township 22 N, Range 02 E, and Section 4, and 5 of Township 21 N, R 02 E. The Project site is located north of Honey Run Road, east of the Potter Road bike path, and south of Doe Mill Road/E. 20th Street at the base of the foothills of the Sierra Nevada mountain range (Figure 1). A utility corridor running west along Skyway Road from the southwest corner of the site is included as part of the Project boundary. The Doe Mill residential development occurs to the north of the Project. The foothills to the east of the Project are undeveloped open land. To the south of Honey Run Road is Butte Creek with low density housing developments and open undeveloped land. There is open land adjacent to the Project, west of the Potter Road bike path, containing vernal complexes, including the Doe Mill Preserve. The proposed Project is a community development comprised of mixed use residential, mixed use commercial, and open space. Currently, the Project site is used for cattle grazing, rock harvesting, and storing bee hive boxes. Within the site, the vegetation community is comprised of annual grassland, with shallow mima mound-swale topography, and blue oak (Quercus douglasii) and foothill pine (Pinus sabiniana) woodland. In general, the site is hilly with a few relatively flat areas along the western boundary of the site. Slopes vary from 0 to 70 percent across the site. The soil map units occurring within the Project site include soil map units known to support BCM populations (e.g. soil map unit 614). Soil depth across the site ranges from 0 to 48 inches, typically not deeper than 14 inches.

¹ According to the CNPS Inventory of Rare and Endangered Plants, 1B plants are species that are rare, threatened, or endangered in California and elsewhere.



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Valley's Edge Development Project Regional Location Figure 1



Methodology

The surveys for the 5 special-status plants species identified above were conducted on April 3, 4 and 5, and June 1, 2017, during the appropriate flowering window of the target species, by botanist Elena Gregg (see **Attachment A** for Botanist Qualifications) and assisted by biologists Matthew Clark and Vaughn Herold. All wetlands present were surveyed and meandering transects were conducted in the upland portions of the survey area on foot. A Trimble Geo Explorer 6000 Series GPS Receiver was on hand to record any special-status plant occurrences observed.

Surveys were conducted in accordance with the November 2009 DFW Protocols for Surveying and Evaluation Impacts to Special Status Native Plant Populations and Natural Communities and the September 1996 USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. Rainfall and inundation during the winter of 2016/2017 was considered above average by the National Oceanic and Atmospheric Administration (NOAA), and moisture in the soil had been sufficient to allow for germination of the four special-status plants based on visits to California Natural Diversity Database (CNDDB) documented reference populations. A reference population of Ahart's paronychia at the Stone Ridge Ecological Reserve in Chico, CA was visited on March 17, 2017, a reference population of Butte County golden clover along Cottonwood Road in Butte County, CA was visited on March 21, 2017, a reference population of BCM at the Meriam Park Preserve in Chico, CA was visited on March 21, 2017, and a reference population of Butte County checkerbloom at Upper Bidwell Park was visited on May 29, 2017 to verify the blooming status of these species. During the reference site visits, all of these plants were observed in the flowering stage. An additional reference site visit to Meriam Park Preserve was conducted on April 1, 2017 to verify BCM was still observable. During this visit, it was identified that BCM was in the seeding stage and was still observable. Additionally, a voucher specimen of Red Bluff dwarf rush held at the Gallaway Enterprises office was reviewed prior to the field surveys.

Results

A total of 0.004 acre of BCM occurrences were observed in the survey area during the protocol-level survey conducted. These occurrences represent an approximate total of 30 individual plants. The locations of these occurrences are depicted in **Exhibit A**. Two additional CNPS Rank 4.3 plant species were observed within the Project site. These two plants included the shield-bracted monkeyflower (*Erythranthe glaucescens*) and Bidwell's knotweed (*Polygonum bidwelliae*). The shield-bracted monkeyflower was observed within all of the main drainages that flow east to west across the Project site. Bidwell's knotweed was observed within the annual grassland, specifically, throughout the shallow, rocky mima mound-swale portions of the site. As Rank 4.3 plant species, these two plants are considered to be on a watch list in California and should be avoided if at all possible by any future construction activities, however, there are no regulations in place that would require any compensation for the loss of these species. No additional special-status plant species were observed within the Project site. A list of all of the plant species observed during the survey is provided as **Attachment B**.

Should you have any questions, please do not hesitate to contact me at (530) 332-9909 or via email at elena@gallawayenterprises.com.

Sincerely,

Elena Gregg, Senior Botanist

Gallaway Enterprises

Attachment ASurveyor Qualifications

Elena Gregg, Senior Botanist / ISA Certified Arborist

EDUCATION

B.S., Environmental Biology and Management, 2004 University of California, Davis

EXPERIENCE

12 Years

Gallaway Enterprises (2013-Current)

Senior Botanist, ISA Certified Arborist

NorthStar Engineering (2009-2013)

Senior Botanist, ISA Certified Arborist

Gallaway Consulting, Inc. (2006-2008)

Botanist, ISA Certified Arborist

Jones and Stokes (2005)

On-call Field Botanist

U.S. Forest Service, Truckee and Sierraville Ranger Districts (2004 and 2005)

Botanical Technician

AREAS OF EXPERTISE

- Rare Plant Surveys
- Wetland Delineations
- Habitat Assessments
- Tree Inventories
- State and Federal permit Facilitation
- Endangered Species Act Documentation
- Mitigation Monitoring
- **CRAM Assessments**
- Arborist Construction Monitoring
- **Habitat Restoration**
- Environmental Awareness Training

Elena has over twelve years of professional experience conducting rare plant surveys, wetland delineations, and habitat assessments in California. She has a working knowledge of CNPS, CDFW, and USFWS survey protocols and holds a CDFW collection permit for listed plant species. Through her ample field experience in a wide array of habitats and eco-regions in Northern California, Mrs. Gregg has gained knowledge of locally invasive plants species as well as rare species. In particular, Mrs. Gregg has surveyed extensively for Butte County meadowfoam, a locally endangered plant species. Mrs. Gregg has a working knowledge of the Clean Water Act regulations and facilitation of local and federal environmental permits. She regularly prepares Caltrans documentation for projects receiving Caltrans Local Assistance. In 2007 Mrs. Gregg gained her Professional Arborist Certification from the International Society of Arboriculture. As a Certified Arborist, Mrs. Gregg conducts tree inventories, tree health assessments, and heritage tree surveys. She also prepares tree preservation plans and has been called upon to monitor trees during construction. Her experience with habitat restoration includes preparing wetland restoration plans, mitigation and monitoring plans, and reclamation plans. Mrs. Gregg also conducts annual monitoring associated with mitigation and re-vegetation projects, and in 2012 was trained in using CRAM to assess riverine and vernal pool systems.

Attachment B

Plant Species Observed

Plant Species Observed within the Valley's Edge Project April 3-5, May 10, & June 1, 2017				
Scientific Name	Common Name			
Achyrachaena mollis	Blow-wives			
Acmispon brachycarpus	Foothill lotus			
Aegilops triuncialis	Barbed goatgrass			
Aesculus californica	California buckeye			
Aira caryophyllea	Silver hairgrass			
Allium amplectens	Clasping onion			
Allium peninsulare var. peninsulare	Mexican onion			
Alopecurus saccatus	Vernal pool foxtail			
Amsinkia sp.	Fiddleneck			
Aristolochia californica	California pipevine			
Asclepias eriocarpa	Indian milkweed			
Athysanus pusillus	Common sandweed			
Avena barbata	Wild oats			
Blenospermma nana	Yellow carpet			
Brassica sp.	Mustard			
Briza maxima	Greater quaking-grass			
Briza minor	Lesser quaking-grass			
Brodiaea elegans	Harvest brodiaea			
Bromus diandrus	Rip-gut brome			
Bromus hordeaceous	Soft chess			
Bromus madritensis ssp. rubens	Red brome			
Callitriche heterophylla	Water starwort			
Calystegia occidentalis ssp. occidentalis	Western morning glory			
Cardamine oligosperma	Western bittercress			
Carduus pycnocephalus	Italian thistle			
Castilleja attenuata	Valley tassels			
Ceanothus cuneatus var. cuneatus	Buck brush			
Ceanothus integerrimus	Deer brush			
Centaurea solstitialis	Yellow star thistle			
Centromadia fitchii	Fitch's spikeweed			
Cerastium glomeratum	Mouse-eared chickweed			
Cercis occidentalis	Western redbud			
Chlorogalum pomeridianum var. pomeridianum	Wavyleaf soap-plant			
Cicendia quadrangularis	Timwort			
Clarkia arcuata	Glandular clarkia			
Clarkia purpurea	Winecup clarkia			
Claytonia perfoliata	Miner's lettuce			
Clematis lasiantha	Chaparral clematis			
Convulvulus arvensis	Bindweed			
Crassula aquatica	Aquatic pygmyweed			
Crassula connatum	Pygmyweed			
Crassula tillaea	Moss pygmyweed			
Croton setiger	Turkey-mullein			
Crucianella angustifolia	Crosswort			

Scientific Name	Common Name
Cynodon dactylon	Bermuda grass
Cynosurus echinatus	Hedgehog dogtail
Cyperus eragrostis	Tall nutsedge
Daucus pusillus	Rattlesnake weed
Delphinium variegatum ssp. variegatum	Royal larkspur
Deschampsia danthonoides	Annual hairgrass
Dichelostemma capitatum	Blue dicks
Dichelostemma multiflorum	Round-toothed ookow
Dichelostemma volubile	Twining ookow
Eleocharis macrostachya	Pale spike-rush
Elymus caput-medusae	Medusahead
Epilobium densiflorum	Dense flowered spike primrose
Epilobium torreyi	Torrey's willowherb
Eriogonum nudum var. pubiflorum	Naked buckwheat
Erodium botrys	Long-beaked stork's-bill
Erodium cicutarum	Cut-leaf filaree
Eryngium castrense	Coyote thistle
Erythranthe glaucescens	Shield-bracted monkeyflower
Eschscholzia lobbii	
Festuca bromoides	Fryingpans Six-weeks fescue
	Rattail fescue
Festuca myuros	
Festuca perennis	Rye-grass
Ficus carica	Wild fig
Frangula californica	California coffeeberry Bedstraw
Galium aparine	
Galium parisiense	Wall bedstraw
Gastridium phleoides	Nitgrass
Geranium dissectum	Cut-leaved geranium
Geranium molle	Dove's-foot geranium
Gilia tricolor	Bird's eye gilia
Gnaphalium palustre	Western marsh cudweed
Gratiola ebracteata	Common hedge hyssop
Grindelia hirsutula var. davyi	Foothill gumplant
Hordeum marinum ssp. gussoneanum	Mediterranean barley
Hordeum murinum	Wall hare barley
Hypochaeris glabra	Smooth cat's ear
Juglans hindsii	Black walnut
Juncus bufonius	Toadrush
Juncus capitatus	Leafy bracted dwarf rush
Koeleria gerardii	Annual junegrass
Lactuca serriola	Prickly lettuce
Lamium amplexicaule	Giraffehead
Lasthenia californica	California goldfields
Lasthenia fremontia	Goldfields
Layia fremontii	Tidy-tips

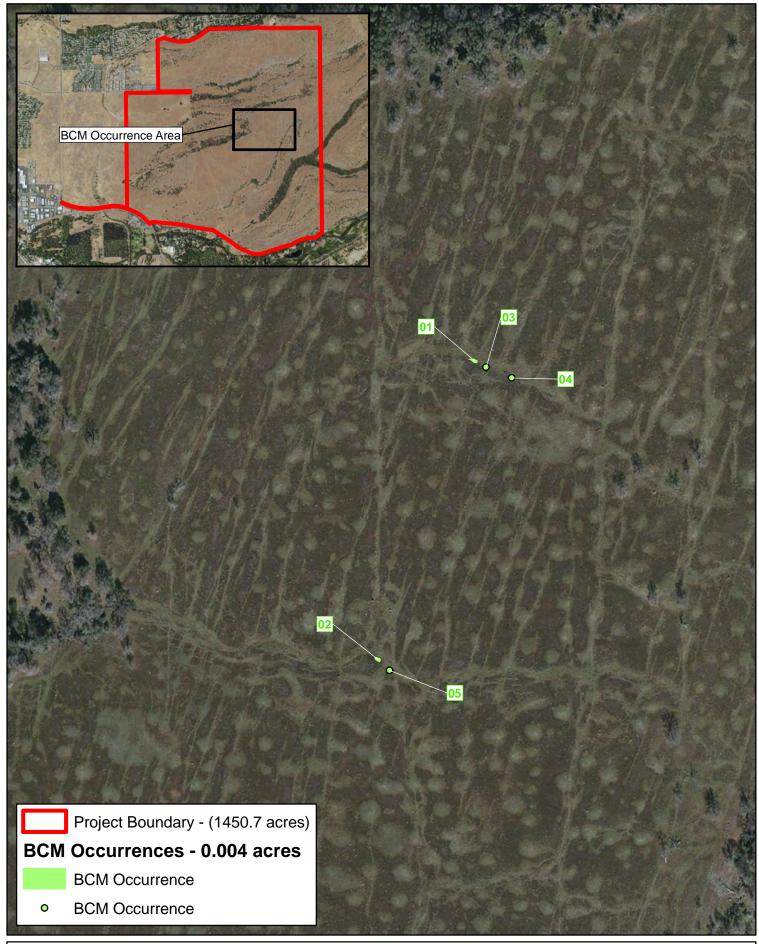
Scientific Name	Common Name
Leontodon saxatilis	Hawkbit
Lepechinia calycina	California pitcher-sage
Lepidium nitidum	Shinning pepperweed
Leptosiphon bicolor	True babystars
Lessingia nemaclada	Slender-stemmed lessingia
Limnanthes douglasii ssp. rosea	Rosy meadowfoam
Limnanthes floccosa ssp. californica	Butte County meadowfoam
Limnanthes floccosa ssp. floccosa	Wooly meadowfoam
Lithophragma bolanderi	Bolander's woodlandstar
Logfia gallica	Narrowleaf cottonrose
Lonicera interrupta	Chaparral honeysuckle
Lupinus nanus	Sky lupine
Lysimachia arvensis	Scarlet pimpernel
Lythrum hyssopifolia	Hyssop loosestrife
Madia elegans	Common madia
Marah fabacea	California manroot
Matricaria discoidea	Common pineapple weed
Medicago polymorpha	Common bur-clover
Micropus californicus var. californicus	Q tips
Microseris acuminata	Sierra foothill silverpuff
Mimulus guttatus	Seep monkeyflower
Minuartia californica	Sandwort
Montia fontana	Water montia
Navarretia filicaulis	Thread-stem navarretia
Navarretia intertexta ssp. intertexta	Needle-leaved navarretia
Navarretia leucocephala	White pin-cushion
Navarretia pubescens	Downy navarretia
Navarretia tagetina	Marigold navarretia
Nemophila pedunculata	Meadow nemophila
Odontostomum hartwegii	Hartweg's odontostomum
Olea europaea	Olive
Pentagramma triangularis ssp. triangularis	Gold-backed fern
Perideridia oregana	Oregon yampah
Petrorhgia dubia	Grass-pink
Pilularia americana	American pillwort
Pinus sabiniana	Gray pine
Plagiobothrys austiniae	Austin's popcorn flower
Plagiobothrys fulvus	Common popcorn flower
Plagiobothrys stipitatus var. micranthus	Small-flowered popcornflower
Plagiobothrys stipitatus var. stipitatus	Large-flowered popcornflower
Plantago coronopus	Cut-leaf plantain
Plantago elongata	Prairie plantain
Plantago erecta	Erect plantain
Plantago lanceolata	English plantain
Plectritis ciliosa	Pink plectritis

Scientific Name	Common Name
Poa annua	Annual bluegrass
Poa bulbosa	Bulbous bluegrass
Poa secunda	Bluegrass
Pogogyne zizyphoroides	Sacramento Valley pogogyne
Polygonum bidwelliae	Bidwell's knotweed
Polypogon monspeliensis	Rabbitsfoot grass
Primula clevelandii ssp patula	Lowland shootingstar
Prunus dulcis	Almond
Psilocarphus brevissimus	Wooly marbles
Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni	Live oak
Ranunculus aquatilis var. aquatilis	Broad-leaved water buttercup
Ranunculus muricatus	Prickle-seeded buttercup
Rhus aromatica	Fragrant sumac
Rubus armeniacus	Himalayan blackberry
Rumex crispus	Curly dock
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
Sambucus nigra ssp. caerulea	Blue elderberry
Sedella pumila	Dwarf-stonecrop
Selaginella hansenii	Hansen's spikemoss
Senecio vulgare	Old-man-in-the-Spring
Sherardia arvensis	Field-madder
Sidalcea calycosa ssp. calycosa	Annual checkerbloom
Sidalcea hartwegii	Hartweg's checkerbloom
Silene gallica	Common catchfly
Silybum marianum	Milk thistle
Solanum parishii	Parish's nightshade
Stachys rigida	Rigid hedge nettle
Stellaria media	Common chickweed
Torilis arvensis	Hedge parsley
Toxicodendron diversilobum	Poison oak
Tragopogon dubius	Yellow salsify
Trifolium depauperatum	Cowbag clover
Trifolium dubium	Shamrock clover
Trifolium glomeratum	Sessile-headed clover
Trifolium hirtum	Rose clover
Trifolium microcephalum	Maiden clover
Trifolium repens	White clover
Trifolium subterraneum	Sub clover
Trifolium varigatum	White-tipped clover
Trifolium willdenovii	Wildcat clover
Triteleia hyacinthina	Wild hyacinth
Triteleia laxa	Ithuriel's spear
TITICICIO IUNU	icitation 3 spear

Scientific Name	Common Name	
Triteleia lilacina	Foothill triteleia	
Tryphisaria ericaria	Johnnytuck	
Umbellularia californica	California bay laurel	
Velezia rigida	Velezia	
Verbascum blattaria	Moth mullein	
Veronica peregrina ssp. xalapensis	Purslane speedwell	
Vicia sativa	Garden vetch	
Vicia villosa	Winter vetch	
Vitis californica	Wild grape	
Xanthium strumarium	Rough cocklebur	
Zeltnera venusta	June centaury	

Exhibit A

Butte County Meadowfoam Occurrence Maps





1:2,200 0 100 200 Feet Data Sources: ESRI, Butte County

Valley's Edge Development Project BCM Occurrence Map

Surveyed by: E.G., April 4, 2017 GE# 14-108



Appendix D

Wet-Season and Dry-Season Invertebrate Sampling Reports





2014-2015 WET SEASON BRANCHIOPOD SURVEY

For the

VALLEY'S EDGE PROJECT

90-Day Findings Report
USFWS Reference # 2015-TA-0035

May 2015



Prepared for:
U.S. Fish and Wildlife Service, Sacramento Office
Attn: David Lee Kelly
2800 Cottage Way W-2605
Sacramento, CA 95825-1888

Prepared by:

Gallaway Enterprises

117 Meyers Street, Suite 120 Chico CA 95928 (530) 332-9909 www.gallawayenterprises.com

2014-2015 WET SEASON BRANCHIOPOD SURVEY

VALLEY'S EDGE PROJECT

Prepared for:

U.S. Fish and Wildlife Service, Sacramento Office

Attn: David Lee Kelly 2800 Cottage Way W-2605 Sacramento, CA 95825-1888

Prepared by:

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MAY 2015

SUMMARY OF FINDINGS

Gallaway Enterprises performed a first wet-season vernal pool branchiopod survey for the Valley's Edge Project site in Chico, Butte County, California, in accordance with the U.S. Fish and Wildlife Service's Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods. Surveys were initiated on November 25, 2014, and continued until February 25, 2015 within wetland features that met the minimum requirements for vernal pool branchiopods. The site continued to be monitored for ponded water after rain events until April 27, 2015; however the rain events that occurred during this period were not significant enough to result in 3 cm or more of ponded water or the reinitiating of sampling. All wetland features, including vernal pools, vernal swales, and seasonal wetlands within the portions of the Project site proposed for development were observed to determine if they met the minimum requirements for vernal pool branchiopods. Of the wetland features identified in these portions of the site, 31 supported the necessary parameters to support branchiopod life and were sampled in efforts to determine the presence/absence of federally listed vernal pool branchiopods in each wetland feature. The surveys were conducted due to the high potential for occurrence of federally listed vernal pool fairy shrimp (Branchinecta lynchi) and vernal pool tadpole shrimp (Lepidurus packardi) within the site. During the 2014-2015 wet-season surveys no federally listed branchiopods were observed within the wetlands.

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1.0 INTRODUCTION

The Valley's Edge Project (also referred to as the Doe Mill/Honey Run Special Planning Area in the City of Chico's General Plan) site is located within USGS Chico Quadrangle, Section 28, 29, 32, and 33 of Township 22 N, Range 02 E, and Section 4, and 5 of Township 21 N, R 02 E. The Project site includes Assessor's Parcel Numbers 018-390-005, 018-390-007, 017-210-005, 017-260-119, 017-210-006, & 017-240-023. The Project site is located north of Honey Run Road, east of Potter Road, and south of Doe Mill Road at the base of the foothills of the Sierra Nevada mountain range (**Figure 1**). The Doe Mill residential development occurs to the north of the Project. The foothills to the east of the Project are undeveloped open land. To the south of Honey Run Road is Butte Creek with low density housing developments and open undeveloped land. There is open land adjacent to the Project, west of Potter Road, containing vernal complexes.

1.1 Purpose of the Survey

A protocol-level wet-season survey for the portions of the site proposed for development was conducted to establish feature by feature presence or absence of listed vernal pool branchiopods. A complete survey per U.S. Fish and Wildlife Service (USFWS) guidelines consists of either two full wet-season surveys, done within a 5-year period, or two consecutive seasons consisting of one full wet-season survey, and one dry-season survey (or one dry-season survey and one full wet-season survey).

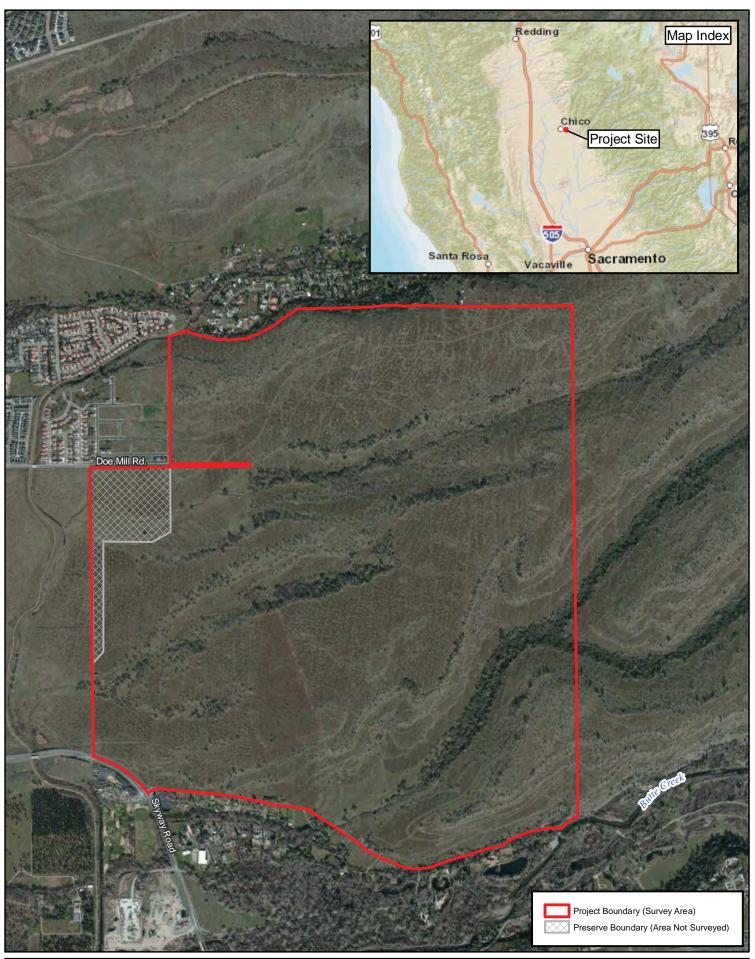
Written authorization from the USFWS to conduct the surveys for Valley's Edge was received November 06, 2014 via e-mail from David Kelly (USFWS Reference No. 2015-TA-0035, **Appendix A**).

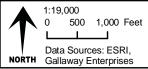
For the purpose of this report, the term branchiopod refers strictly to the 2 federally listed vernal pool invertebrate species that have the potential to occur within the site: vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*).

The following wet-season report is being submitted in accordance with the conditions of the USFWS Permit TE-049693-1. This document follows the reporting format outlined in the USFWS 1996 Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (USFWS Guidelines).

2.0 PROJECT DESCRIPTION

The proposed Project includes the construction of a recreation oriented, mixed-use development offering a broad range of housing types and densities. The currently proposed development will include a village core, that would provide a mix of professional offices,





neighborhood retail, and other services, retail along Skyway Road, a variety of residential densities (including very low, low, medium, and medium-high density), open space areas, a community park, neighborhood and pocket parks, public uses (potentially an elementary school site), and preserve areas with creekside corridors. Roadways, trails, and bikeways will be integrated into the natural landscape to connect the residential areas to parks, open space, offices, public facilities, and services.

3.0 METHODOLOGY

3.1 Survey Methodology

Surveys were conducted according to the USFWS Guidelines. Upon receipt of USFWS approval to survey the site (Appendix A), surveys were initiated after the first seasonal storm event to determine when pools/swales were inundated over 3 cm. The sampling period began November 25, 2014, with the last sample date on February 25, 2015. From this last sample date until April 27, 2015 the site was continued to be surveyed for ponding water after rain events; however, none of the rain events during this time period resulted in ponded water within the wetlands sufficient for sampling to be reinitiated. Once inundated, pools and swales were sampled every two weeks unless no longer inundated. The Project site contained varying sizes of wetland features, some of which remained inundated or re-filled multiple times to allow them to be sampled more than once during the survey period and others that did not pond water over 3 cm. Pools were evaluated during each site visit and sampled if they contained greater than 3 cm of water. At each site visit, the survey area was traversed by quad. Sampling was done with a 0.5-mm mesh, long-handled D-net. A representative sample of each pool/swale's micro-habitats, including the bottom, edges and vertical water column was collected; and netted contents were examined either within the bag of the net, or transferred to a bucket and examined by portions in a white or clear sorting pan.

Biologists Jody Gallaway (TE-049693) and Elena Gregg (TE-049693) performed the field surveys and were aided by biologist Melissa Murphy.

4.0 HABITAT DESCRIPTION

4.1 Environmental Setting

The site is currently used for cattle grazing, rock harvesting, and storing bee hives. Within the site the vegetation community is comprised of annual grassland with palustrine habitat, including vernal and seasonal features, and blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*) woodland.

The average annual precipitation is 25.66 inches and the average annual temperature is 61° F (WRCC). The region, as has much of California, has experienced several years of drought. The topography of the site is largely sloped with a western aspect. The elevation at the Project ranges from 230-520 feet above sea level. Much of the Project site is comprised of rocky mound-swale topography that suggests the presence of wetland signatures when viewing the aerial photography; however, these areas often have too steep a gradient and thin eroded soil that is unable to support hydrophytic vegetation and hydric soils. Soil depth across the site ranges from 0 to 48 inches, typically not deeper than 14 inches. Numerous vernal pools and swales are present along the western edge of the survey area; many of these pools were created when the construction of Potter Road, which travels north and south along the western edge of the survey area, created an impediment. This impediment causes water to pool for longer durations. A broad finger ridge extends through the center of the property with two creek valleys to the north and south of the ridge. South of the ridge, Comanche Creek enters the west side of the property, flows southwest, and exits the south side of the property, and north of the ridge, an unnamed drainage flows east to west across the site. One unnamed ephemeral drainage originates in the center of the property, flows west, and exits the west side of the Project boundary. All of the drainages flow west off the Project site and enter sloughs or diversion channels that flow in a southwest direction, where they have a direct connection with the Sacramento River.

4.2 Determination of Branchiopod Habitat

The Project site's wetland features were delineated in 2014. A map depicting the delineated wetland features and corresponding numbers was referenced during each site visit to determine the features that ponded water for sufficient amounts of time to support branchiopods (Exhibit A). Two additional areas ponded water for sufficient amounts of time to support branchiopods but were not considered to meet the criteria required to be mapped as a potential jurisdictional wetland. The areas are depicted on Exhibit A as sample points. All ponded features with the potential of supporting the life cycle of any of the listed vernal pool branchiopods were located on the wetland delineation map, sampled and recorded on Data Sheets (Appendix B). Pictures of the survey area are provided in Appendix C.

4.3 Vernal Pools and Swales

Within the Project site, all features were checked for ponded water 3cm deep or deeper; however, only 31 features ponded water at the minimum depth long enough during the 2014-2015 wet-season to be sampled (Exhibit A). Of the 31 features sampled, only 11 of them were sampled more than once during the 2014-2015 wet-season. Vernal pools and swales within the site were quite similar, and in many cases seemed identical upon weekly evaluation in the field. The majority of the vernal features present within the site are shallow, occur on a slight slope, and are positioned on thin soils. As such, any ponded water within these features tended to evaporate quickly, resulting in a lack of sufficient parameters to provide suitable branchiopod habitat. These features included vernal features within the site that were either only sampled

once or not at all during the 2014-2015 wet-season. Of features sampled more than once, 3 were deep pot holes (two were natural located in bedrock and one was man-made) and the remaining 8 all had similar characteristics that resulted in a longer ponding duration. The characteristics these features had in common included having a relatively larger size, being relatively deeper, located on much flatter terrain and/or having a slight impediment associated with it, and being positioned in areas where the soil was deeper.

5.0 SURVEY RESULTS

5.1 Results

Wet-season surveys conducted within the Project site resulted in negative findings for federally listed branchiopods. Data sheets can be found in **Appendix B**.

5.1.1 Sampling Locations

All the wetland features supporting the parameters to potentially sustain the life cycle of vernal pool branchiopods within the Valley's Edge Project site are depicted in **Exhibit A**.

5.1.2 Species Identified and Population Size

No federally listed branchiopods were observed in the wetlands surveyed within the Project site. General species encountered in pool communities on the site included *Hypogastrura* sp., copepods, ostracods, planarians, baetidae larvae, notonectids, hydrophilid adults and larvae, gastropods, corixids, dytiscid adults and larvae, *Trombidium* sp., hydrachnids, and several types of dipteran larvae.

6.0 **SUMMARY**

Precipitation events during the 2014-2015 wet-season occurred primarily in the months of November and February. Very little precipitation occurred in between these months, allowing wetlands to dry in between rain events. Of the wetlands present within the Project site, only a few vernal pools remained inundated for a long enough period of time for them to be sampled and even fewer remained inundated for a long enough duration to be sampled more than once. Although the 2014-2015 wet-season was a continuation of a multi-year drought, the thin soils, slopes present, and small size of the majority of the features on the site indicate that the features may normally pond for only a short duration, and, thus, provide only marginal habitat for federally listed invertebrates.

During the sampling efforts, a variety of common freshwater invertebrates were observed in the features sampled. However, no federally listed invertebrates were present.

11.0 REFERENCES CONSULTED

Eriksen, C.H. and D. Belk. 1999. Fairy shrimps of California's puddles, pools, and playas. Mad River Press, Eureka, CA.

Merritt, R.W., and K.W. Cummins (eds.). 1996. An introduction to the aquatic insects of North America (3rd ed.). Kendall/Hunt Publishers, Dubuque, IA.

Smith, D.G. 2001. Pennak's freshwater invertebrates of the United States: porifera to crustacea. 4th Edition. John Wiley and Sons, Inc., New York, NY.

Thorp, J.H. and A.P. Covich (eds). 2001. Ecology and classification of North American freshwater invertebrates (2nd ed.). Academic Press. San Diego, CA.

USFWS. 1996. Interim survey guidelines to permittees for recovery permits under Section 10(a)(1)(A) of the Endangered Species Act for the listed vernal pool branchiopods. USFWS Sacramento Field Office, Sacramento, CA.

12.0 STATEMENT OF SURVEYORS

"I certify that the information in this survey report and attached exhibits fully and accurately represent my work".

Jody Gallaway (#TE-049693)

Elena Gregg (#TE-049693)

APPENDIX A

USFWS Wet-Season Sampling Authorization

Elena Gregg

From: Jody Gallaway

Sent: Thursday, November 06, 2014 9:19 AM

To: Elena Gregg

Cc:Bill Brouhard (bill@gbrealestate.net)Subject:FW: Valleys Edge Survey Request

fyi

From: Kelly, David [mailto:david kelly@fws.gov]
Sent: Thursday, November 06, 2014 9:13 AM

To: Jody Gallaway

Cc: Kellie Berry; Mike Thomas; Richard Kuyper **Subject:** Re: Valleys Edge Survey Request

Jody Gallaway,

By this email message you are authorized to conduct wet season surveys (2014-2015) for federally-listed vernal pool branchiopods, per the conditions of your recovery permit TE-049693 and as specified in your letter requests with maps dated in November 4, 2014. The surveys will be conducted at the following project sites:

1. 1,450 acre Valley's Edge project site east of the City of Chico, Butte County (Service Ref Number 2015 - TA - 0035)

This site is described in the request letters and attached maps. Your request is to sample seasonally inundated wetlands, pools, ditches, and basins located within the sites. Surveys may be conducted within all seasonally inundated wetlands identified on-site that may provide suitable vernal pool crustacean habitat. Suitable habitat not previously identified on the project site may also be sampled under this authorization.

Please remember to carry a copy of your permit while doing the work, and to follow the terms and conditions of the permit and the survey guidelines, including the reporting requirements. In your report, please include which surveys were authorized, the names of all persons involved in the surveys, their recovery permit numbers, if applicable, and the date of this authorization, to help ensure that we correctly record the fulfillment of the reporting requirement under this authorization. Please let us know if the surveys are not performed as authorized, or if they are done by a different permittee under a separate authorization. This authorization does not include access to the property which must be arranged with the landowner or manager.

Please send one hard copy and one electronic copy of the report(s) to David Kelly, of our Recovery Branch, and send a separate copy (electronic) to Kellie Berry, Chief of the Sacramento Valley Division. We ask that you use UTM coordinates for all spatial data and that you use the reference

number provided with the site descriptions above in any future correspondence regarding the survey.

To ensure the accuracy and data integrity of your project, it is requested that you provide spatial information (boundaries, study areas, parcels, point locations, etc.) in the form of an ESRI shape file with projection, a GPS file with projection, or locations in an Excel spreadsheet with projection information . The preferred projection is UTM, Zone 10S, NAD83; the Sacramento Fish and Wildlife Office (SFWO) standard. FGDC compliant metadata must accompany each file. Please include any USFWS File Numbers associated with the data in your documentation. For additional information regarding metadata standards refer to http://www.fgdc.gov. For more information regarding spatial data please contact: Cheryl L. Hickam, GIS Branch Chief, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, Ca 95825-1846, office: 916-414-6708.

On Wed, Nov 5, 2014 at 2:32 PM, Jody Gallaway < jody@gallawayenterprises.com > wrote:

David;

The attached is a request to conduct protocol level invertebrate studies at the proposed Valley Edge project site, Chico, Butte County. Please contact me if you should have any questions.

Thanks,

Jody Gallaway

President and Senior Biologist

Gallaway Enterprises, Inc.

117 Meyers Street, Suite 120

Chico, CA 95928

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David Lee Kelly Recovery Biologist Sacramento Fish and Wildlife Office 2800 Cottage Way W-2605 Sacramento, California 95825-1888 Phone:916-414-6492

APPENDIX B

USFWS Vernal Pool Data Sheets

Note: Please fill out the required information completely for each site visit.
This form is being submitted to serve as part of the 90-day report: no yes
Required color slides and/or photographs for the project site are included: no yes
Date: 11/25/14 Time: 1225 County: Butte Quad: Chico
Collector(s): Elena Gregg Permit #: TE-049693
Site/Project Name: Valley's Edge Pool #: Sample Point \
Township: 22 N Range: 2 E Section: 32 29.716405 lat. 121.768453' long.
Temperature: Water:°C Air:°C
Pool Depth: Surface Area: at time of sampling: 8 cm at time of sampling: 1 m x 2 m
estimated maximum: cm estimated maximum: m x m
Habitat Condition: (circle where appropriate)
- undisturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other heavy
- land use of habitat:
(Optional) Water Chemistry Data
Alkalinity (total):ppm or mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm
pH: Turbidity: (secchi disc depth)cm or: clear to bottom
Salinity:ppt or ppm Total Dissolved Solids (TDS):ppm
Notes:

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no	Anisoptera:	yes	no	
Copepods:	yes	no	Zygoptera:	yes	no	
Ostracods	yes	no	Hydrophilidae:	yes	no	
Fish	yes	no	Dytiscidae:	(yes)	no	750.
Frogs	yes	no	Corixidae:	yes	no	
Salamanders	yes	no	Notonectidae:	yes	no	
Waterfowl	yes	no	Belostomatidae:	yes	no	
Other (specify)		3.70	Other (specify)			
flat water	(Play	naria)				

Voucher Specimens Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the requ	uired informatio	on complet	ely for each s	ite vis	at.	
This form is being submitte	d to serve as pa	rt of the 90	-day report:	n	no <u></u> ★ yes	
Required color slides and/or	r photographs fo	or the proje	ect site are inc	luded	: no yes	
Date: 11 / 25/14 Tim	e:(County:	sutte		Quad: chico	_
Collector(s): _ Eleva	Gregor		Perm	it #: _	7E-049693	
Site/Project Name: Va	lley's Edge				Pool#: WF7	1
Township: 22 N_ F	Range: 2 E	Section	: 32	39,714	+272 lat121,7777 long	9.
Temperature:	Water:	₹°C	Air:	20	°C	
Pool Depth: at time of sampling:	<u>6</u> _cm	Surface at time o	Area: f sampling:	3	m x <u>2,5</u> m	
estimated maximum:	10 cm	estimated	d maximum:	6	m x m	
Habitat Condition: (circle w	here appropriat	te)				
- undisturbed	disturbed:	tire track	s garbag	e	discing/plowing	
- ungrazed	grazed:		orses sheep modera		heavy	
- land use of habitat:						
(Optional) Water Chemistry	/ Data					
Alkalinity (total):	ppm or mg/I	C	Conductivity:_		_uMHO	
Dissolved NH ₄ :p	pt or ppm	Dissolve	d Oxygen:	р	pm or mg/l	
pH: Turl	bidity: (secchi d	lisc depth)	cm or:	clear	to bottom	
Salinity:ppt or p	opm	Total Dis	ssolved Solid	s (TDS	S):ppm	
Notes:						

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Notostracans: (note reproductiv	ve stati	us)	None			
Species Observations	(Optio	onal):	None			
Cladocerans:	yes	no		Insects: (adult or larvae)		
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	yes	no		Zygoptera:	yes	no
Ostracods	yes	no		Hydrophilidae:	yes	no
Fish	yes	no		Dytiscidae:	yes	no
Frogs	yes	no		Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	yes	no		Belostomatidae:	yes	no
Other (specify)				Other (specify)		

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u> # Individuals <u>Accession/Catalog #</u> Pool #

Required color slides ar		art of the 90-day repor		
Date: 11 /25/14	Time: 11.dbam	County: 1504e	Quad:	_ Chico
Collector(s):	na Gregg	Pe	ermit#: TE-	049693
Site/Project Name:	1 alley's Edge		Pool	#: WF 73_
Township: 77N	0			
Temperature:	Water:	°C Air:	°C	
Pool Depth:	11	Surface Area:	•	in Ponded
at time of sampling	:cm	at time of sampling	:mx	1d m 2x1m
estimated maximum	n: <u>18</u> cm	estimated maximum	n: <u>8 </u>	24 m ~ F73
Habitat Condition: (circ	le where appropria	ate)		Sch.
- undisturbed	disturbed:	tire tracks garb	age disci	12 m Ponded 2×1 m 24 m 3rea Ponded 3rea
marazad	grazed:	cattle horses shee		
- ungrazed		light mod	erate	heavy
And the state of				
- land use of habitat	t: Opengrazyla	id.		
And the state of		4		
- land use of habitat	istry Data	1 Conductivit	y:uMHC)
- land use of habitat (Optional) Water Chem Alkalinity (total):	istry Datappm or mg/			
- land use of habitate (Optional) Water Cheme Alkalinity (total): Dissolved NH4:	istry Datappm or mg/ppt or ppm	T Conductivit	ppm or i	ng/l

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: Notostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no	Anisoptera:	yes	no	
Copepods:	yes	no	Zygoptera:	yes	no	
Ostracods	yes	no	Hydrophilidae:	yes	no	
Fish	yes	no	Dytiscidae:	yes	no	
Frogs	yes	no	Corixidae:	yes	no	
Salamanders	yes	no	Notonectidae:	yes	no	
Waterfowl	yes	no	Belostomatidae:	yes	no	
Other (specify)	Gost.	soular lear le	Other (specify)			
	Water					

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Wet Season Survey
Note: Please fill out the required information completely for each site visit.
This form is being submitted to serve as part of the 90-day report: no yes
Required color slides and/or photographs for the project site are included: no yes
Date: 12,9,14 Time: 1242 County: Butle Quad: Chico
Collector(s): _ Elena Gregg, Melissa Murphy Permit#: TE-049693
Site/Project Name: \(\sum{10.104'S Edge}\) Pool #: \(\widetilde{WF 93}\)
Township: 22N Range: 2E Section: 32 39.714583 lat121,776205
Temperature: Water:°C Air:°C
Pool Depth: at time of sampling:
estimated maximum: 25 cm estimated maximum: 3 m x 14 m
Habitat Condition: (circle where appropriate)
- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed cattle horses sheep otherheavy
- land use of habitat:
(Optional) Water Chemistry Data
Alkalinity (total):ppm or mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm Dissolved Oxygen:ppm or mg/l
pH: cm or: clear to bottom
Salinity:ppt or ppm Total Dissolved Solids (TDS):ppm

Notes:

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate # of individuals	present in terms	of an order of
magnitude (e.g., 10's, 100's, 1	000's)		

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera: ye	es	no
Copepods:	yes	no	Zygoptera: ye	es	no
Ostracods	(yes)	no	Hydrophilidae: ye	es	no
Fish	yes	no	Dytiscidae: ye	es	no
Frogs	yes	no	Corixidae: ye	es	no
Salamanders	yes	no	Notonectidae: ye	es	no
Waterfowl	yes	no	Belostomatidae: ye	es	no
Other (specify)	Plano	irlans	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

		on completely for each site visit.
This form is being submit	ted to serve as pa	art of the 90-day report: no yes
Required color slides and	or photographs t	for the project site are included: no yes
Date: 12/9/14 Ti	me: \:\0	County: Butte Quad: Chico
Collector(s): E	Gregg, M.	Murphy Permit #: TE-049693
Site/Project Name:	ralley's Ed	9c Pool#: WF68
Township: 22N	Range: 2 E	Section: 32 31.714583 lat121.776805.
Temperature:	Water:	8°C Air:16°C
Pool Depth: at time of sampling: _	<u>7</u> cm	Surface Area: $\frac{4}{3.5} \times \frac{9}{m} \times \frac{3.5 \times 3}{7 \times m} \times \frac{3.5 \times 4}{5 \times 4} \times 3.5 \times $
estimated maximum:	\5_cm	estimated maximum: 8 m x 17 m
Habitat Condition: (circle	where appropria	ate)
- undisturbed	disturbed:	tire tracks garbage discing/plowing
- ungrazed	grazed:	cattle horses sheep other heavy
- land use of habitat:		
(Optional) Water Chemist	ry Data	
Alkalinity (total):	ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :	ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Tu	rbidity: (secchi	disc depth)cm or: clear to bottom
Salinity :ppt or	r ppm	Total Dissolved Solids (TDS):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate # of indi	ividuals present in	terms of an	order of
magnitude (e.g., 10's, 100's, 1	000's)			

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no	Anisoptera: y	es	no	
Copepods:	yes	no	Zygoptera: y	es	no	
Ostracods	(yes)	no	Hydrophilidae: y	es	no	
Fish	yes	no	Dytiscidae:	es	no	
Frogs	yes	no		es	no	
Salamanders	yes	no		es	no	
Waterfowl	yes	no		es	no	
Other (specify)			Other (specify)			
planar	ia		2 larte			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required into	ormation completely for each site visit.
This form is being submitted to serve	e as part of the 90-day report: no yes
Required color slides and/or photogr	raphs for the project site are included: no yes
Date: 12 / 1 / 14 Time:	30 County: Butte Quad: Chico
Collector(s): E, Gresa,	M. Murphy Permit #: TE - 649693
	Edge Pool#: WF 66
J	2E Section: 32 39,714583 lat121,7762 long.
Temperature: Water:	°C
Pool Depth: at time of sampling:	Surface Area: at time of sampling:
estimated maximum: 10 cm	estimated maximum:G_m x m
Habitat Condition: (circle where app	ropriate)
- undisturbed disturb	ped: tire tracks garbage discing/plowing
- ungrazed grazed	cattle horses sheep other heavy
- land use of habitat;	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm o	or mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (se	ecchi disc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status) Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera: yes	no	
Copepods:	yes	no	Zygoptera: yes	no	
Ostracods	yes	no	Hydrophilidae: yes	no	
Fish	yes	no	Dytiscidae: yes	no	
Frogs	yes	no	Corixidae: yes	no	
Salamanders	yes	no	Notonectidae: yes	no	
Waterfowl	yes	no	Belostomatidae: yes	no	
Other (specify)			Other (specify)		
Plana	ria		7 10116		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required information	on completely for each site visit.
This form is being subn	nitted to serve as pa	rt of the 90-day report: no yes
Required color slides ar	nd/or photographs fo	or the project site are included: no yes
Date: 12/9/14	Time: 1740	County: _ Buffe Quad: _Chico
Collector(s): _ ∈ . G	rregg, M. Mu	11 phy Permit #: TE-049693
Site/Project Name:	Valley's Ec	Pool#: Life
Township: ZZ N	Range: Z E	Section: 32 39.714583 lat121.7768055 long
Temperature:	Water:	7_ °C Air:\5 °C
Pool Depth: at time of sampling:	:_12_cm	Surface Area: at time of sampling: m x m
estimated maximum	ı: <u>15</u> cm	estimated maximum:m xm
Habitat Condition: (circ	le where appropriat	te)
- undisturbed	disturbed:	tire tracks garbage discing/plowing
- ungrazed	grazed:	cattle horses sheep otherheavy
- land use of habitat		
(Optional) Water Chem	istry Data	
Alkalinity (total):	ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH:	Turbidity: (secchi d	lisc depth)cm or: clear to bottom
Salinity :ppt	or ppm	Total Dissolved Solids (TDS):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no	Anisoptera:	yes	no	
Copepods:	yes	no	Zygoptera:	yes	no	
Ostracods	(yes)	no	Hydrophilidae:	yes	no	
Fish	yes	no	Dytiscidae:	yes	no	
Frogs	yes	no	Corixidae:	yes	no	
Salamanders	yes	no	Notonectidae:	yes	no	
Waterfowl	yes	no	Belostomatidae:	yes	no	
Other (specify)			Other (specify)			
plane	eria		Marva			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required information	on completely	for each si	ite visi	t.	
This form is being subn	nitted to serve as pa	rt of the 90-da	ay report: _	n	×, ×,	yes
Required color slides ar	nd/or photographs fo	or the project	site are inc	luded:	n	o yes
Date: 12/9/14	Time:	County:	Butte		Quad: _	Chico
Collector(s):	Gregg, M.V	Murphy	Perm	it #:	TE-c	049693
Site/Project Name:		-				
Township: 22 N	Range: 25	Section: _	32	39.714	593 lat.	-121.776 long
Temperature:	Water: (?	°C	Air:	16	_°C	
Pool Depth: at time of sampling	: <u>13</u> cm	Surface Are at time of sa		10	_m x _	<u>4</u> m
estimated maximum	n:cm	estimated n	naximum:	11	_m x _	<u>5</u> m
Habitat Condition: (circ	le where appropriat	te)				
undisturbed	disturbed:	tire tracks	garbage	2	discing	g/plowing
- ungrazed	grazed:	eattle hors	ses sheep modera			heavy
- land use of habitat	t:					
(Optional) Water Chem	istry Data					
Alkalinity (total):_	ppm or mg/l	Con	ductivity:_		иМНО	
Dissolved NH ₄ :	_ppt or ppm	Dissolved (Oxygen:	pp	m or m	g/l
pH:	Turbidity: (secchi d	lisc depth)	cm <u>or</u> :	clear t	o botto	m
Salinity :ppt	or ppm	Total Disso	lved Solids	(TDS):	ppm
Notes:						

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)	Hiscid	lacro - Agabus
Planas	10				.3-

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informatio	on completely for each site visit.
This form is being submitted to serve as par	rt of the 90-day report: no yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 3,00 C	County: <u>Butte</u> Quad: <u>Chico</u>
Collector(s): E. Gregg, M. M	urphy Permit#: TE-049693
Site/Project Name: Valley's Edge	Pool #: WF69
	Section: 32 39.714583 lat121.776805
	7_ °C Air: 16_ °C
Pool Depth: at time of sampling:cm	Surface Area: at time of sampling:m xm
estimated maximum: cm	estimated maximum:5_m x8_m
Habitat Condition: (circle where appropriate	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:

Species Observations (Optional):

(note reproductive status)

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera: y	res	no
Copepods:	yes	no	Zygoptera:	res	no
Ostracods	yes	no	Hydrophilidae: y	es	no
Fish	yes	no	Dytiscidae:	res	no
Frogs	yes	no		res	no
Salamanders	yes	no	Notonectidae:	res	no
Waterfowl	yes	no	Belostomatidae:	res	no
Other (specify)	9100	naria	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informatio	n completely for each site visit.
This form is being submitted to serve as par	t of the 90-day report: no _X yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 21/0	County: <u>Butte</u> Quad: <u>Chico</u>
Collector(s): E. Gregg, M. Mur	ehy Permit #: TE-049693
	Pool#: WF76
9	Section: 32 39, 7145 83 lat121, 476805" long.
Temperature; Water:1 8	°C
Pool Depth: at time of sampling:cm	Surface Area: at time of sampling: m x m
estimated maximum:locm	estimated maximum:20_ m x7_ m
Habitat Condition: (circle where appropriate	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	light horses sheep other heavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity :ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Spid	or mites	Other (specify)		
	Plana	ria			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	n completely for each site vis	it.
This form is being submitted to serve as par	t of the 90-day report:n	io 🔀 yes
Required color slides and/or photographs fo	r the project site are included	: no yes
Date: 12/9/14 Time: 2:20 C	County:Butte	Quad: Chico
Collector(s): E. Gregg M. Murg	Permit #:	78-049693
Site/Project Name: Valley's Edge		
Township: ユスル Range: スモ		
Temperature: Water:	°C Air: 17	°C
Pool Depth: at time of sampling:cm	Surface Area: at time of sampling:	_m x _S _m
estimated maximum: 15 cm	estimated maximum:	m x 5m
Habitat Condition: (circle where appropriate	e)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed:	cattle horses sheep other light moderate	heavy
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi di	sc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)	
Conchostracans:	yes	no	Anisoptera: yes	no
Copepods:	yes	no	Zygoptera: yes	no
Ostracods	(yes)	no	Hydrophilidae: yes	no
Fish	yes	no	Dytiscidae: yes	no
Frogs	yes	no	Corixidae: yes	no
Salamanders	yes	no	Notonectidae: yes	no
Waterfowl	yes	no	Belostomatidae: yes	no
Other (specify)	plan	arid	Other (specify)	- 2
	Spill	N 1-5-5		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

	and the second second
Note: Please fill out the required informatio	n completely for each site visit.
This form is being submitted to serve as par	t of the 90-day report: no yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 2:30	County: Buffe Quad:Chico
Collector(s): E. Grego, M. M	urphy Permit #: TE-049693
Site/Project Name: Valley's Edge	Pool #: ルデー
Township: 22 N Range: 2E	Section: 32 39.714075 lat121.776647.
Temperature: Water:	7_ °C Air: °C
Pool Depth: at time of sampling: 5cm	Surface Area: at time of sampling:
estimated maximum: ocm	estimated maximum:m xm
Habitat Condition: (circle where appropriate	e)
-undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	light horses sheep other heavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate	# of individuals	present in	terms of an	order of
magnitude (e.g., 10's, 100's, 1000's)				

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae;	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _	Plan	aria	Other (specify)		-

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required inform	mation completely for each site visit.
This form is being submitted to serve a	as part of the 90-day report: no <u>×</u> yes
Required color slides and/or photograp	ohs for the project site are included: no yes
Date: 12/9/14 Time: 2:3	5 County: Butte Quad: Chico
Collector(s): E. Grego, M.	Murphy Permit #: TE-049693
Site/Project Name: Valley's E	Edge Pool #: Sample Point 2
Township: 72N Range:	2 E Section: 32 39.714080 lat121.777435° long.
Temperature: Water: _	\ 7
Pool Depth: at time of sampling: 7 cm	Surface Area: at time of sampling:
estimated maximum: 16 cm	estimated maximum:tom x4m
Habitat Condition: (circle where appro	opriate)
- undisturbed disturbed	d: tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or	mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (sec	chi disc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

		00's, 10			
Anostracans:					
(note reproductiv	e stati	ıs)			
Notostracans:					
(note reproductive	e stati	us)			
ecies Observations	(Optio	onal):	None		
Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	161111		Other (specify)		

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informano	n completely for each si	te visit.
This form is being subm	nitted to serve as par	t of the 90-day report: _	noyes
Required color slides an	d/or photographs fo	or the project site are incl	luded: no yes
Date: 12/9/14	Time: <u>2:40</u> C	County: <u>Butte</u>	Quad: Chico
Collector(s): _ & G	regg, M.M	urphy Permi	t#:_TE-049693
Site/Project Name:	valley's Edge		Pool #: <u>VF 73</u>
Township: 22 N	Range: ΣΕ	Section: 32	39.714023 lat121.777733
Temperature:	Water: 7	°C Air:	18_°C
Pool Depth: at time of sampling:		Surface Area: at time of sampling: _	24_mx_7_m
estimated maximum	ı: <u>\ </u>	estimated maximum:	24 mx 8 m
Habitat Condition: (circ	le where appropriate	e)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	cattle horses sheep of hight moderate	
- land use of habitat	:		
(Optional) Water Chem	istry Data		
Alkalinity (total):	ppm or mg/l	Conductivity:_	uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:	ppm or mg/l
pH:	Turbidity: (secchi di	isc depth)cm <u>or</u> :	clear to bottom
Salinity:ppt	or ppm	Total Dissolved Solids	(TDS):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Plan	iaria	Other (specify)	10.41	
1000			larva Sp.		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	on completely for each site visit.
This form is being submitted to serve as par	rt of the 90-day report: no yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 2:50	County: <u>Butte</u> Quad: <u>Chico</u>
Collector(s): E. Gregg, M. Mur	Permit #: TE-049693
	Pool #: WF74
Township: $22N$ Range: $\lambda \in$	Section: 3 2 39,714277at121.777740°
Temperature: Water:	<u>}</u> °C Air: <u> </u>
Pool Depth: at time of sampling:cm	Surface Area: at time of sampling:
estimated maximum: 10 cm	estimated maximum:m xm
Habitat Condition: (circle where appropriat	re)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	light horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth) cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Plan	acia	Other (specify)		
			? larval		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	non completely for each site visit.
This form is being submitted to serve as p	part of the 90-day report: no 🔀 yes
Required color slides and/or photographs	for the project site are included: no yes
Date: 12/9/14 Time: 3	County: Butte Quad: Chico
Collector(s): E. Grega M. M.	hurphy Permit #: TE-049693
Site/Project Name: Valley's Edg	Pool #: WF75
V	Section: 3.2 39.7142721at, -121,7777740 long
Temperature: Water:	7_ °C Air: °C
Pool Depth: at time of sampling:cm	Surface Area: at time of sampling: m x m
estimated maximum: 15 cm	estimated maximum: 0m x\$m
Habitat Condition: (circle where appropri	ate)
-undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg	/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi	disc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	yes	no		Zygoptera:	yes	no
Ostracods	(yes)	no	2500	Hydrophilidae:	yes	no
Fish	yes	no	10.51	Dytiscidae:	yes	no
Frogs	yes	no		Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	yes	no		Belostomatidae:	yes	no
Other (specify)	Plan	acia		Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informatio	n completely for each site visit.
This form is being subm	itted to serve as par	t of the 90-day report: no 🔀 yes
Required color slides an	d/or photographs fo	or the project site are included: no yes
		County: Butte Quad: Chico
Collector(s): E. (orego, M. Muc	Permit #: 1 E-049693
		Pool #: _1 = 63
	- 0	Section: 32 39,713846 lat121.776239
Temperature:	Water:	<u>}_</u> °C Air: <u>1'8</u> °C
Pool Depth: at time of sampling:	8cm	Surface Area: at time of sampling:3.5_m x\m
estimated maximum	1: \5 cm	estimated maximum:m x _3m
Habitat Condition: (circ	le where appropriat	e)
- undisturbed	disturbed:	tire tracks garbage discing/plowing
- ungrazed	grazed:	horses sheep other heavy
- land use of habitat	:	
(Optional) Water Chem	istry Data	
Alkalinity (total):	ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH:	Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt	or ppm	Total Dissolved Solids (TDS):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	glar	iac'ia	Other (specify)	181000	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the re-	quired informatio	n completely for	each site vis	it.
This form is being submitt	ed to serve as par	t of the 90-day re	port: n	o × yes
Required color slides and/	or photographs fo	or the project site	are included	: no yes
Date: 15/9/14 Tir	ne: 3120 C	County: But	te	Quad: Chico
Collector(s):	egg, M.	Murphy	Permit #: _	TE-049693
Site/Project Name:	-			
Township: ススル	Range: 2E	_ Section:3	39.713	3835" lat121. 774594" long.
Temperature:	Water: 17	C A	Air: 16	°C
Pool Depth: at time of sampling: _	O_cm	Surface Area: at time of sampl	ing: <u>7</u>	_m x <u>S</u> m
estimated maximum:	15 cm	estimated maxin	mum:8	_m x _ 5 _m
Habitat Condition: (circle	where appropriate	e)		
- undisturbed	disturbed:	tire tracks g	garbage	discing/plowing
- ungrazed	grazed:	cattle horses slight n	heep other_ noderate	heavy
- land use of habitat:				
(Optional) Water Chemistr	ry Data			
Alkalinity (total):	ppm or mg/l	Conduct	ivity:	uMHO
Dissolved NH ₄ :	ppt or ppm	Dissolved Oxyg	gen:p	pm or mg/l
pH: Tu	rbidity: (secchi di	isc depth)	cm <u>or</u> : clear	to bottom
Salinity:ppt or	ppm	Total Dissolved	Solids (TDS	S):ppm
Notes:				

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(ves)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _	910	nacio	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	e required informatio	n completely	y for each si	te visit.	
This form is being sub	mitted to serve as par	t of the 90-d	lay report: _	noX	yes
Required color slides a	nd/or photographs fo	or the project	t site are incl	luded: r	no yes
Date: 17/9/14	Time: C	County:	Butte	Quad:	chico
Collector(s):	Grega, M. 1	Murphy	Permi	t#:	049693
Site/Project Name:					
Township: 2 \ N	Range: 2 E	Section:	04	39,710661 lat.	121,764859 ° long.
Temperature:	Water:	°C	Air:	/5 °c	
Pool Depth: at time of sampling	g: <u>B</u> cm	Surface Ar at time of s		10 m x	/ O_m
estimated maximu	m: <u>28</u> cm	estimated r	naximum: _	<u> </u>	10 m
Habitat Condition: (cir	cle where appropriate	e)			
- undisturbed	disturbed:	tire tracks	garbage	discin	g/plowing
- ungrazed	grazed:		rses sheep of moderat		heavy
- land use of habita	ıt:				
(Optional) Water Chem	nistry Data				
Alkalinity (total):_	ppm or mg/l	Cor	nductivity:_	uMHO	
Dissolved NH ₄ :	ppt or ppm	Dissolved	Oxygen:	ppm or п	ng/l
pH:	Turbidity: (secchi di	isc depth)	cm <u>or</u> :	clear to botto	om
Salinity:pp	ot or ppm	Total Disso	olved Solids	(TDS):	ppm
Notes:					

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals p	resent in terms	of an	order of
magnitude (e.g., 10's, 100's, 1000's)			

Anostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera: yes	3	no
Copepods:	ves	no	Zygoptera: yes	3	no
Ostracods	(yes)	no	Hydrophilidae: yes		no
Fish	yes	no	Dytiscidae: yes		no
Frogs	yes	no	Corixidae:	5)	no
Salamanders	yes	no	Notonectidae: yes	5)	no
Waterfowl	yes	no	Belostomatidae: yes		no
Other (specify) _			Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informatio	n completely for each site visit.
This form is being submitted to serve as par	t of the 90-day report: no yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 4	County: Butle Quad: Chico
Collector(s): E. Gregg, M. N	lurphy Permit #: TE-049693
Site/Project Name: Valley's Edge	Pool #: <u>45 79</u>
Township: 21 N Range: 2E	Section: 04 39.710507 lat. 121, 764551 long.
Temperature: Water:\&	0 °C
Pool Depth: at time of sampling:\8cm	Surface Area: at time of sampling:\Om xSm
estimated maximum: <u>23</u> cm	estimated maximum: 12 m x 6 m
Habitat Condition: (circle where appropriate	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _	Pla	nacio	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	n completely for each site visit.
This form is being submitted to serve as par	t of the 90-day report: no×_ yes
Required color slides and/or photographs for	or the project site are included: no yes
Date: 12/9/14 Time: 4	County: Butte Quad: Chico
Collector(s): E. Gregg, M.	Murphy Permit #: TE-049693
Site/Project Name: Valley's Ed	ge Pool#: 6F R
Township: 21 N Range: 2E	Section: 04 39,710744 lat121.763766 long
Temperature: Water:	°C Air: <u>(S</u> °C
Pool Depth: at time of sampling: \(\subseteq \cdot\) cm	Surface Area: at time of sampling: m x/ m
estimated maximum: 17 cm	estimated maximum:\li_m x5m
Habitat Condition: (circle where appropriate	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	light horses sheep other heavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _	Play	naria	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required information	n completely for each sit	e visit.
This form is being subm	itted to serve as par	t of the 90-day report: _	no <u></u> y yes
Required color slides ar	ıd/or photographs fo	or the project site are incl	uded: no yes
Date: 12/17/14	Time:ll am_C	County: Butte	Quad: Chico
Collector(s): E. 6	regg, M. Mur	Permi	t#:_TE-049693
Site/Project Name:	Valley's Edg	e	Pool #: WF 90
Township: 22 N	Range: ZE	Section: 33	39.72159 nat. 121,757 10ng
Temperature:	Water:\	<u></u> °C Air:	°C
Pool Depth: at time of sampling	:14_cm	Surface Area: at time of sampling: _	5 m x 4 m
estimated maximum	1: <u>16</u> cm	estimated maximum: _	5.5 m x 4 m
Habitat Condition: (circ	le where appropriate	e)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	cattle horses sheep of moderat	
- land use of habitat	:		
(Optional) Water Chem	istry Data		
Alkalinity (total):_	ppm or mg/l	Conductivity:_	uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:	ppm or mg/l
рН:	Turbidity: (secchi d	isc depth)cm <u>or</u> :	clear to bottom
Salinity:ppt	or ppm	Total Dissolved Solids	(TDS):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	по
Copepods:	yes	no int	Zygoptera:	yes	no
Ostracods	(yes)	no seedsmine	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)		
flatwo	ms (P	lanara)	? larva	e	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informati	ion completely for each site visit.
This form is being submitted to serve as p	art of the 90-day report: no yes
Required color slides and/or photographs	for the project site are included: no yes
Date: 12/17/14 Time: 11:20	County: Butte Quad: Chico
Collector(s): E. Gregg, M. 1	harphy Permit #: TE-049693
Site/Project Name: Valley's Ed	ge Pool #: WF 42
Township: 22N Range: 2E	Section: 33 39.723017lat. 121.768180" long
Temperature: Water:	S °C Air: °C
Pool Depth: at time of sampling:i5cm	Surface Area: at time of sampling:m xm
estimated maximum: \ bcm	estimated maximum:7m x6m
Habitat Condition: (circle where appropria	ate)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi	disc depth) cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations magnitude (e.g.,			stimate # of individuals present in terms o	f an orde	er of	
Anostracans:						
(note reproductive	ve stati	ıs)				
Notostracans: (note reproductive	ve stati	ıs)				
Species Observations	(Optio	onal):				
Cladocerans:	yes	no	Insects: (adult or larvae)			
Conchostracans:	yes	no	Anisoptera:	yes	no	
Copepods:	yes	no	Zygoptera:	yes	no	
Ostracods	(yes)	no	Hydrophilidae:	yes	no	
Fish	yes	no	Dytiscidae:	yes	no	
Frogs	yes	no	Corixidae:	yes	no	

yes

yes

yes

Notonectidae:

Belostomatidae:

Other (specify)

no

no

no

Voucher Specimens

Salamanders

Other (specify)

Waterfowl

yes

yes

Plandicia

no

no

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species	# Individuals	Accession/Catalog #	Pool #

Note: Please fill out the required information	n completely for each site vis	it.
This form is being submitted to serve as par	t of the 90-day report:n	o <u>X</u> yes
Required color slides and/or photographs for	or the project site are included	: no yes
Date: 12/17/14 Time: 11:40	County: <u>Butte</u>	Quad: Chico
Collector(s): E. Gregg, M. M.	Permit #:_	TE-049693
Site/Project Name: Valley's Edg	C.	Pool#: WF 41
Township: Range: Z ∈	Section:3339.723	1017 lat. 121.768180° long
Temperature: Water:	5 °C Air: 1(°C
Pool Depth: at time of sampling: q cm	Surface Area: at time of sampling:	_m x _ 2 _m
estimated maximum: 10 cm	estimated maximum:	m x _ 2 _ m
Habitat Condition: (circle where appropriate	e)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed:	cattle horses sheep other moderate	heavy
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)		
P	lanann				

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	n completely for each site vis	1t.
This form is being submitted to serve as par	t of the 90-day report:n	o X yes
Required color slides and/or photographs fo	r the project site are included	: no yes
Date: 12/17/14 Time: 12 0		
Collector(s): E. Grega, M.	Murphy Permit #: _	TE-049693
Site/Project Name: Valley's Edge		
Township: 22N Range: 2E	_ Section: _ 32 _ 31.725	5647 lat. 121.76958 long.
Temperature: Water:	5_°C Air: \	°C
Pool Depth: at time of sampling:24_cm	Surface Area: at time of sampling: 3	_m x <u>3</u> m
estimated maximum: 25 cm	estimated maximum: 3	_m x _3 _m
Habitat Condition: (circle where appropriate	e)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed:	cattle horses sheep other moderate	heavy
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(es)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Spider	mite	Other (specify)		
	Piana	na			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Flease IIII out the	required informatio	on completely for each site vis	SIL.
This form is being subm	itted to serve as par	rt of the 90-day report:	no X yes
Required color slides an	d/or photographs fo	or the project site are included	l: no yes
Date: 12/17/14	Гіте: <u>12:20</u> (County: Butte	Quad: _ Chico_
Collector(s): E.G	reag, M. Mu	rphy Permit #: _	TE-049693
Site/Project Name:	Valley's Edu	je	Pool #: WF 82
Township: ススル	_Range: _ 2E	Section: 29 39.72	1899 at. at. 121.771037 long.
Temperature:	Water: 12	°C Air:	°C
Pool Depth: at time of sampling:	<u>26</u> cm	Surface Area: at time of sampling:	m xlm
estimated maximum	: <u>28</u> cm	estimated maximum:	mxl_m
Habitat Condition: (circl	e where appropriat	re)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	cattle horses sheep other moderate	heavy
- land use of habitat			
(Optional) Water Chemi	stry Data		
Alkalinity (total):	ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:	opm or mg/l
pH:	Turbidity: (secchi d	lisc depth)cm or: clear	to bottom
Salinity:ppt	or ppm	Total Dissolved Solids (TD	S):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional): Uo∧€

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _			Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	on completely for each site vis	it
This form is being submitted to serve as pa	rt of the 90-day report: n	o × yes
Required color slides and/or photographs f	or the project site are included	: no yes
Date: 12/17/14 Time: 12:30	County: Butte	Quad: Chico
Collector(s): E. Grega, M Murp	Permit #: _	TE-049693
Site/Project Name: Valley's Eday	0,	Pool #: wf 81
Township: 22N Range: 2E		
Temperature: Water:\	2_ °C Air:	_°C
Pool Depth: at time of sampling:\q_cm	Surface Area: at time of sampling:	_m x <u>3</u> _m
estimated maximum: 20 cm	estimated maximum:4	_m x <u>3</u> m
Habitat Condition: (circle where appropria	te)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed:	cattle horses sheep other moderate	heavy
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi d	disc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

yes	no	Insects: (adult or larvae)		
yes	no	Anisoptera:	yes	no
yes	no	Zygoptera:	yes	no
(yes)	no	Hydrophilidae:	yes	no
yes	no	Dytiscidae:	yes	no
yes	no	Corixidae:	yes	no
yes	no	Notonectidae:	yes	по
yes	no	Belostomatidae:	yes	no
Planor	ria	Other (specify)	12	
	yes yes yes yes yes yes yes	yes no yes no yes no yes no yes no yes no	yes no Anisoptera: yes no Zygoptera: yes no Hydrophilidae: yes no Dytiscidae: yes no Corixidae: yes no Notonectidae: yes no Belostomatidae:	yes no Anisoptera: yes yes no Zygoptera: yes yes no Hydrophilidae: yes yes no Dytiscidae: yes yes no Corixidae: yes yes no Notonectidae: yes yes no Belostomatidae: yes

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informatio	n completely for each si	te visit.
This form is being subm			
Required color slides an	d/or photographs to	or the project site are incl	luded: no yes
Date: 12/17/14	Гіте: <u>\ \ २'. 45</u> С	County: <u>Butte</u>	Quad: Chico
Collector(s): E.	Gregg, M. Mu	Permi	t#: TE-049693
Site/Project Name:	Valley's Ed	ige	Pool #: WF 56
Township:	Range: ZE	Section: 32	39.72 1106 lat121.773358° long
Temperature:			
Pool Depth: at time of sampling:		Surface Area: at time of sampling:	<u> </u>
estimated maximum	: <u>12</u> cm	estimated maximum:	4 mx 4 m
Habitat Condition: (circ	le where appropriate	e)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	dattle horses sheep dight moderate	
- land use of habitat			
(Optional) Water Chemi	istry Data		
Alkalinity (total):	ppm or mg/l	Conductivity:_	uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:	ppm or mg/l
pH:	Turbidity: (secchi d	isc depth)cm or:	clear to bottom
Salinity:ppt	or ppm	Total Dissolved Solids	(TDS):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Sold	ur mites	Other (specify)		
	Plan	Ma	? larvae		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informatio	n completely for each site visit.
This form is being submitted to serve as par	t of the 90-day report: no yes
Required color slides and/or photographs fo	r the project site are included: no yes
Date: 17/17/14 Time: 1 pm 0	County: Butte Quad: Chico
Collector(s): E. Gregg M. Mus	-phy Permit #: TE-049693
Site/Project Name: Valley's Edge	Pool#: WF SS
Township: 22 kg Range: 2E	Section: 32 39,721106 lat. 121.773358 long
	°C Air:11, 5 °C
Pool Depth: at time of sampling: cm	Surface Area: at time of sampling:
estimated maximum:10cm	estimated maximum:6m x3m
Habitat Condition: (circle where appropriate	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	Cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi di	sc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	plano	m	Other (specify)		V 100
			? Igrac		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informatio	n completely for each site vis	311.
This form is being submitted to serve as par	t of the 90-day report: n	no ⊁ yes
Required color slides and/or photographs for	or the project site are included	: no yes
Date: 12 / 17/14 Time: 1:30	County: Butte	Quad: Chico
Collector(s): E. Gregg, M. N	lvrphy Permit #:_	TE-049693
Site/Project Name: Valley's Edge	*	Pool#: WF 54
Township: $22N$ Range: $2E$	Section: 32 39.71	9324° lat. 121. 776413°
Temperature: Water:13	°C Air: 11,5	°C
Pool Depth; at time of sampling:\to	Surface Area: at time of sampling:	_m x _ 5 _m
estimated maximum:\3_cm	estimated maximum: 4	m x <u>5</u> m
Habitat Condition: (circle where appropriate	e)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed:	cattle horses sheep other light moderate	
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes:		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	ves	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _	Seidu	- mites	Other (specify)		
The state of the s	Plana	ria	? larvae		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informatio	on completely for	each site vis	SIT.	
This form is being subr	nitted to serve as par	rt of the 90-day re	eport:	no 🔀 yes	
Required color slides a	nd/or photographs fo	or the project site	are included	l: no yes	
Date: 12/17/14	County: Bat	Quad: _Chico			
Collector(s): E	lurphy	TE-049693			
Site/Project Name:	Valley's Edge			Pool #: UF 60	
Township: 22 N					
Temperature:	Water: 13	°C	Air:12_	°C	
Pool Depth: at time of sampling	Surface Area: at time of sampling:6m x4m				
estimated maximur	n: <u>15</u> cm	estimated maxi	mum:()_m x <u>5</u> m	
Habitat Condition: (circ	cle where appropriat	e)			
- undisturbed	disturbed:	tire tracks	garbage	discing/plowing	
- ungrazed	grazed:	Cattle horses		heavy	
- land use of habita	t:				
(Optional) Water Chem	nistry Data				
Alkalinity (total):ppm or mg/l		Conductivity:		_uMHO	
Dissolved NH ₄ :	ppt or ppm	Dissolved Oxygen:p		opm or mg/l	
pH:	Turbidity: (secchi d	isc depth)	_cm <u>or</u> : clear	to bottom	
Salinity:pp	Total Dissolved Solids (TDS):ppm				
Notes:					

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Spid	u mites	Other (specify)		
			? lar	VTILI	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required infor	rmation completely for each site visit.
This form is being submitted to serve	as part of the 90-day report: no yes
Required color slides and/or photogra	phs for the project site are included: no yes
Date: 12 /17 / 14 Time: 1:5	county: Butte Quad: Chico
Collector(s): E. Gregg.	M. Murphy Permit #: TE-049693
Site/Project Name: Valley's	Edge Pool #: Sample Point
Township: ZZN Range:	2 E Section: 33 39.716405 lat. 121.7684 70 ng.
Temperature: Water:	13 °C
Pool Depth: at time of sampling:\ qcm	Surface Area: at time of sampling:m xm xm
estimated maximum: <u>70</u> cm	estimated maximum:l_m x2 m
Habitat Condition: (circle where appr	opriate)
- undisturbed disturbe	ed: tire tracks garbage discing/plowing
- ungrazed grazed:	light horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or	mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (se	cchi disc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate #	of individuals	present in	terms of	an orde	er of
magnitude (e.g., 10's, 100's, 1	000's)					

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)
Conchostracans:	yes	no	Anisoptera: yes no
Copepods:	yes	no	Zygoptera: yes no
Ostracods	yes	no	Hydrophilidae: yes no
Fish	yes	no	Dytiscidae: yes no
Frogs	yes	no	Corixidae: yes no
Salamanders	yes	no	Notonectidae: yes no
Waterfowl	yes	no	Belostomatidae: yes no
Other (specify)			Other (specify) _ Chironomidae larvae
			Baetis gp.

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informatio	n completely for each	on site visit.
This form is being subn	nitted to serve as par	t of the 90-day repo	rt: no 🔀 yes
Required color slides ar	nd/or photographs fo	or the project site are	included: no yes
Date: 17/17/14	Time: 2:10 pm	County: Butte	Quad: Chico
Collector(s): E,	Gregg M.n	Nurphy Po	ermit#: <u>7</u> E-04 9693
Site/Project Name:	Jalley's Edge		Pool #: WF 83
	-		39.713656 lat. 121.767065 long
Temperature:	Water:13	°C Air	°C
Pool Depth: at time of sampling	: <u>23</u> cm	Surface Area: at time of sampling	g: <u>2.5</u> m x <u>2</u> m
estimated maximum	1: <u>25</u> cm	estimated maximum	m: <u>3</u> mx <u>2</u> m
Habitat Condition: (circ	le where appropriate	e)	
- undisturbed	disturbed:	tire tracks garl	page discing/plowing
- ungrazed	grazed:	cattle horses shee	ep otherheavy
- land use of habitat	:		
(Optional) Water Chem	istry Data		
Alkalinity (total):	ppm or mg/l	Conductivi	ty:uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen	:ppm or mg/l
рН:	Turbidity: (secchi di	isc depth)cm	or: clear to bottom
Salinity:ppt	or ppm	Total Dissolved So	olids (TDS):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)		
			7 1000		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required informati	non completely for each site visit.
This form is being submitted to serve as p	part of the 90-day report: no 🔀 yes
Required color slides and/or photographs	for the project site are included: no yes
	County: Butte Quad: Chico
Collector(s): Elena Gregg	Permit #:
Site/Project Name: Valley's Ed	lge Pool#: 78
Township: 2 N Range: 26	Section: 04 31.710661 lat. 121.764859.
Temperature: Water:	4°C Air:9°C
Pool Depth: at time of sampling:15_cm	Surface Area: at time of sampling:m xm
estimated maximum: _ 2 2 cm	estimated maximum:\l_m x\D_m
Habitat Condition: (circle where appropri	ate)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	light moderate heavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/	/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi	disc depth) cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations:	state none or estimate	# of individuals preser	nt in terms	of an	order of
magnitude (e.g., 10	0's, 100's, 1000's)				

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	(yes)	no
Fish	yes	no	Dytiscidae:	(yes)	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _			Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	on completely for each site visit.
This form is being submitted to serve as pa	art of the 90-day report: no yes
Required color slides and/or photographs f	or the project site are included: no yes
Date: 12 / 31 / 14 Time: 11 15	County: <u>Butte</u> Quad: <u>Chico</u>
Collector(s): Elena Gregg	Permit #:
	Pool#: wF 79
	Section: 04 39.7/0507*lat121.764551* long.
Temperature: Water:	°C Air:9 °C
Pool Depth: at time of sampling: cm	Surface Area: at time of sampling:9 m x4 m
estimated maximum: 23 cm	estimated maximum: 12 m x 6 m
Habitat Condition: (circle where appropria	te)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	disc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

magnitude (e.g.,			ate # of individuals present in terms or	r an orde	er of
Anostracans: (note reproductiv	ve statu	as)			
Notostracans: (note reproductiv	ve stati	ıs)			
ecies Observations	(Optio	onal):			
Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species	# Individuals	Accession/Catalog #	Pool #

Note: Please fill out the	required informatio	n completely for each site visit.	
This form is being subn	nitted to serve as par	t of the 90-day report: no 🔀	yes
Required color slides ar	nd/or photographs fo	r the project site are included:	no yes
Date: 12/3/14	Time: _\\\30(County:BuHe Quad:	Chico
Collector(s):El-	ena Gregg	Permit #: _ TE - 0	249693
		je Pool :	
Township: 22~	Range: 2E	Section: 28 39.731954 lat	121.7622 long.
		°C Air: °C	
Pool Depth: at time of sampling	: <u>\7</u> cm	Surface Area: at time of sampling: m x	m
estimated maximum	n: <u>23</u> cm	estimated maximum:7_m x	_5,5 _m
Habitat Condition: (circ	ele where appropriate	e)	
- undisturbed	disturbed:	tire tracks garbage discir	ng/plowing
- ungrazed	grazed:	cattle horses sheep other light moderate	
- land use of habita	::		
(Optional) Water Chem	istry Data		
Alkalinity (total):_	ppm or mg/l	Conductivity:uMHC)
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:ppm or i	ng/l
рН:	Turbidity: (secchi d	isc depth)cm or: clear to botto	om
Salinity:pp	or ppm	Total Dissolved Solids (TDS):	ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate #	of individuals	present in	terms o	of an	order	of
magnitude (e.g., 10's, 100's, 1	000's)						

Anostracans: (note reproductive status)

Notostracans: (note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)	1	
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	Ves	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)	Plana	ria	Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information completely for each site visit.
This form is being submitted to serve as part of the 90-day report; no yes
Required color slides and/or photographs for the project site are included: no yes
Date: 2/12/15 Time: 11:20 County: Butte Quad: Chico
Collector(s): Elena Gregg Permit #: TE-049693
Site/Project Name: Valley's Edge Pool #: WF73
Township: 22 N Range: 2E Section: 32 39.714023 lat121.7777733
Temperature: Water: 16 °C Air: 22 °C
Pool Depth: Surface Area: at time of sampling: __cm at time of sampling: __m x _\alpha m
estimated maximum: 18 cm estimated maximum: 24 m x 8 m
Habitat Condition: (circle where appropriate)
- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other heavy
- land use of habitat:
(Optional) Water Chemistry Data
Alkalinity (total):ppm or mg/l Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm Dissolved Oxygen:ppm or mg/l
pH:
Salinity:ppt or ppm Total Dissolved Solids (TDS):ppm
Notes:

Note: Please fill out the required information completely for each site visit.

Ç.	aging Observations	u stata	none or ec	timata#af	individuals present in terms o	f an ard	or of
Sp	magnitude (e.g.,				individuais present in terms o	i an orde	er 01
	Anostracans:	the state of					
	(note reproductiv	ve stati	15)				
	Notostracans:						
	(note reproductive	ve stati	is)				
Sp	ecies Observations	(Optio	onal):				
	Cladocerans:	yes	no		Insects: (adult or larvae)		
	Conchostracans:	yes	no		Anisoptera:	yes	no
00	Copepods:	(yes)	no		Zygoptera:	yes	no
	Ostracods	yes	no		Hydrophilidae:	yes	no
	Fish	yes	no		Dytiscidae:	yes	no
	Frogs	yes	no		Corixidae:	yes	no
	Salamanders	yes	no		Notonectidae:	yes	no
	Waterfowl	yes	no	1	Belostomatidae:	yes	no
	Other (specify)			or (merus)	Other (specify)		-
	50	has wil	is bloca	CA.			
Vo	ucher Specimens		no		? e555		
VC	ucher specimens						
-	ecimens shall be pressioned.	reserve	ed accordin	ng to the sta	ndards of the institution in wh	ich they	will be
Species # Individuals Accession/Catalog # Pool #				#			

Note: Please fill out the	e required informatio	on completely for each site visit.
This form is being subi	nitted to serve as par	rt of the 90-day report: no 🔀 yes
Required color slides a	nd/or photographs fo	or the project site are included: no yes
		County: Butte Quad: Chico
Collector(s):E	ena Gregg	Permit #:TE-049693
		Pool #: Sample Point
Township:	Range: ⊋∈	Section: 32 39.714090 lat. 121.777435° long.
		2 °C Air: <u>22</u> °C
Pool Depth: at time of sampling		Surface Area: at time of sampling:lm xlm
estimated maximum	n: <u>10</u> cm	estimated maximum:10m x4m
Habitat Condition: (cir	cle where appropriat	e)
- undisturbed	disturbed:	tire tracks garbage discing/plowing
- ungrazed	grazed:	cattle horses sheep otherheavy
- land use of habita	t:	
(Optional) Water Chen	nistry Data	
Alkalinity (total):_	ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :	ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH:	Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity :pp	t or ppm	Total Dissolved Solids (TDS):ppm
Notes:		

Note: Please fill out the required information completely for each site visit,

Species Observations: state none of	or estimate #	of individuals	present in	terms o	fan	order	of
magnitude (e.g., 10's, 100's, 10)00's)						

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	(yes)	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information co	ompletely for each site visit.
This form is being submitted to serve as part of	f the 90-day report: noX yes
Required color slides and/or photographs for th	ne project site are included: no yes
Date: 2 /17/15 Time: 11:45 Coun	nty: Butte Quad: Chico
Collector(s): Elena Gregg	Permit #: _TE ~ 049693
Site/Project Name: Valley's Edge	
Township: $22N$ Range: $2E$	
Temperature: Water: 20	_°C Air: _ 22°C
Pool Depth: Su at time of sampling: Sc cm at	urface Area: time of sampling:6m x8m
estimated maximum: 15 cm es	timated maximum:8_m x5_m
Habitat Condition: (circle where appropriate)	
- undisturbed disturbed: tir	re tracks garbage discing/plowing
	attle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm D	issolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi disc	depth)cm or: clear to bottom
Salinity:ppt or ppm To	otal Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in term	s of an	order of
magnitude (e.g., 10's, 100's, 1000's)		

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

	Cladocerans:	yes	no	Insects: (adult or larvae)		
	Conchostracans:	yes	no g	Anisoptera:	yes	no
54	Copepods:	(ves)	no Sced shring	Zygoptera:	yes	no
	Ostracods	ves)	no seed 5	Hydrophilidae:	yes	no
	Fish	yes	no	Dytiscidae:	yes	no
	Frogs	yes	no	Corixidae:	(yes)	no
	Salamanders	yes	no	Notonectidae:	ves	no
	Waterfowl	yes	no	Belostomatidae:	yes	no
	Other (specify) _			Other (specify)		

? eggs

> laves

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required informatio	n completely for each site vis	S1T.
This form is being subr	nitted to serve as par	t of the 90-day report: r	no 🔀 yes
Required color slides as	nd/or photographs fo	r the project site are included	l: no yes
Date: 2/12/15	Time: 12.00 C	County: BuHe	Quad: Chico
Collector(s):EL	ena Grego	Permit #: _	TE-049693
Site/Project Name:	Valley's Edg	2.	Pool #: WF 83
		Section: 33 39.713	
Temperature:	Water:(5	°C Air: 22	°C
Pool Depth: at time of sampling	: <u>20</u> cm	Surface Area: at time of sampling:	m xlm
estimated maximur	n: <u>25</u> cm	estimated maximum:3	m x <u>2</u> _m
Habitat Condition: (circ	cle where appropriate	е)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:		heavy
- land use of habita	t:		
(Optional) Water Chem	istry Data		
Alkalinity (total):_	ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH:	Turbidity: (secchi d	isc depth)cm or: clear	to bottom
Salinity:pp	t or ppm	Total Dissolved Solids (TD	S):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate	# of individuals pr	resent in terms	of an order	of
magnitude (e.g., 10's, 100's, 1000's)				

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	(yes)	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)	340.0	

Voucher Specimens

S/ PARION

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the	required information	n completely for each site vis	sit.
This form is being subm	nitted to serve as par	t of the 90-day report:	no <u> </u>
Required color slides ar	nd/or photographs fo	or the project site are included	l: no yes
Date: 2/12/15	Time: 12'10 C	County: Butte	Quad: Chico
Collector(s):E	na Gregg	Permit #: _	TE-049693
Site/Project Name:	Valley's Edg	e	Pool #: WF 78
		Section: 64 39.71	
Temperature:	Water: 19	°C Air: _ 2 Z	°C
Pool Depth: at time of sampling	:_2≶_cm	Surface Area: at time of sampling:	_m x <u>7</u> m
estimated maximum	1: <u>28</u> cm	estimated maximum:\l	m x lo _m
Habitat Condition: (circ	le where appropriate	e)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	cattle horses sheep other moderate	heavy
- land use of habitat	:		
(Optional) Water Chem	istry Data		
Alkalinity (total):	ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :	_ppt or ppm	Dissolved Oxygen:p	opm or mg/l
pH:	Turbidity: (secchi di	isc depth)cm or: clear	to bottom
Salinity:ppt	or ppm	Total Dissolved Solids (TD	S):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate #	f of individuals	present in	terms of an	order of
magnitude (e.g., 10's, 100's,	1000's)				

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	ves	no	Zygoptera:	yes	no
Ostracods	ves	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	Tyes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _			Other (specify)		
			? larvae		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

76

Note: Please fill out the	required information	on completely for each site vis	SIT.
This form is being subr	nitted to serve as par	rt of the 90-day report:	no 🔀 yes
Required color slides a	nd/or photographs fo	or the project site are included	1; no yes
Date: 1/12/15	Time: 12:30	County: Butte	Quad: Chico
Collector(s):Ele	na Gregg	Permit #: _	TE-049693
		ige	
Township: 21 N	Range: 2E	Section: 04 39.74	oSo7 ⁻ lat ^{121,764551} long
Temperature:	Water: \ 9	°C Air: 22	°C
Pool Depth: at time of sampling		Surface Area: at time of sampling:	_m x <u>5</u> m
estimated maximur	n: <u>23</u> cm	estimated maximum:	<u> </u>
Habitat Condition: (circ	cle where appropriat	re)	
- undisturbed	disturbed:	tire tracks garbage	discing/plowing
- ungrazed	grazed:	cattle horses sheep other moderate	heavy
- land use of habita	t:		
(Optional) Water Chem	istry Data		
Alkalinity (total):_	ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :	ppt or ppm	Dissolved Oxygen:p	opm or mg/l
pH:	Turbidity: (secchi d	lisc depth)cm or: clear	to bottom
Salinity:pp	t or ppm	Total Dissolved Solids (TD	S):ppm
Notes:			

Note: Please fill out the required information completely for each site visit.

Species Observations magnitude (e.g.,				of individuals present in terms	of an orde	er of	
magintude (e.g.,	105, 10	00 5, 10	003)				
Anostracans:							
(note reproducti	ve statu	ıs)					
Notostracans:							
(note reproducti	ve stati	ıs)					
Species Observations	s (Optio	onal):					
Cladocerans:	yes	no		Insects: (adult or larvae)			
Conchostracans:	yes	no		Anisoptera:	yes	no	
Copepods:	yes)	no		Zygoptera:	yes	no	
Ostracods	yes	no		Hydrophilidae:	yes	no	
Fish	yes	no		Dytiscidae:	yes	no	
Frogs	yes	no		Corixidae:	yes	no	
Salamanders	yes	no		Notonectidae:	yes	no	
Waterfowl	yes	no	100	Belostomatidae:	yes	no	
04 ('0)	01	20.00	404	0.1 (')	4		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species	# Individuals	Accession/Catalog #	Pool #
	11 22 37 1 2 37 37	The state of the s	

Note: Please fill out the required information	n completely for each site vis	1t.
This form is being submitted to serve as par	t of the 90-day report: n	o <u>×</u> yes
Required color slides and/or photographs fo	r the project site are included	: no yes
Date: 3 /12/15 Time: 12:30 C	County: Butte	Quad: Chico
Collector(s): Elena Gregg	Permit #: _	TE-049693
Site/Project Name: Valley's E	dge	Pool #: wF 80
Township: Range: ZE	Section: 04 39.74	5744*lat. <u>-\z\.763</u> 766*
Temperature: Water:	°C	°C
	Surface Area: at time of sampling:	_m x <u>2.5</u> m
estimated maximum:17_cm	estimated maximum:11	_m x _ 5 _m
Habitat Condition: (circle where appropriate	e)	
- undisturbed disturbed:	tire tracks garbage	discing/plowing
- ungrazed grazed;	cattle horses sheep other moderate	heavy
- land use of habitat:		
(Optional) Water Chemistry Data		
Alkalinity (total):ppm or mg/l	Conductivity:	_uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:p	pm or mg/l
pH: Turbidity: (secchi di	isc depth)cm or: clear	to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS	S):ppm
Notes: lots of algae		

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: (note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _			Other (specify)		
Planas	NO.		? largae		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information completely for each site visit. This form is being submitted to serve as part of the 90-day report: no × yes Required color slides and/or photographs for the project site are included: no yes Date: 2/12/15 Time: 1:30 County: Butte Quad: Chico Collector(s): Elena Grega Permit #: TE-049693 Site/Project Name: Valley's Edge Pool #: 482 Township: 22N Range: 2E Section: 39 39.728869° lat. -121.771037° long. Water: 20 °C Temperature: Pool Depth: Surface Area: at time of sampling: 27 cm at time of sampling: estimated maximum: 28 cm estimated maximum: | m x Habitat Condition: (circle where appropriate) - undisturbed disturbed: tire tracks garbage discing/plowing cattle horses sheep other - ungrazed grazed: moderate heavy light - land use of habitat: (Optional) Water Chemistry Data Conductivity: uMHO Alkalinity (total): ppm or mg/l Dissolved NH₄: ppt or ppm Dissolved Oxygen: ppm or mg/l Turbidity: (secchi disc depth) cm or: clear to bottom pH: Salinity: ppt or ppm Total Dissolved Solids (TDS): ppm Notes:

AT	D1	C11	20.4	11 -	manufact d	1 . C	U D C C C	1 -4 -1	r	1	2740	
Note:	Please	пп	out	tne	requirea	information	comp	letery	Tor	eacn	site	VISIL.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	(yes)	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify)			Other (specify)	rae and	

Voucher Specimens

7 8505

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Note: Please fill out the required information	on completely for each site visit.
This form is being submitted to serve as par	rt of the 90-day report: no yes
Required color slides and/or photographs for	or the project site are included: no yes
	County: Butte Quad: Chico
Collector(s): Elena Grega	Permit #:
Site/Project Name: Valley's Edge	Pool #: WF 89
Township: Z2N Range: ZE	Section: <u>78</u> 39.431954° lat121.762212°
Temperature: Water: 2	
Pool Depth: at time of sampling:t qcm	Surface Area: at time of sampling:
estimated maximum: 23 cm	estimated maximum:
Habitat Condition: (circle where appropriat	e)
- undisturbed disturbed:	tire tracks garbage discing/plowing
- ungrazed grazed:	cattle horses sheep otherheavy
- land use of habitat:	
(Optional) Water Chemistry Data	
Alkalinity (total):ppm or mg/l	Conductivity:uMHO
Dissolved NH ₄ :ppt or ppm	Dissolved Oxygen:ppm or mg/l
pH: Turbidity: (secchi d	isc depth)cm or: clear to bottom
Salinity:ppt or ppm	Total Dissolved Solids (TDS):ppm
Notes:	

Note: Please fill out the required information completely for each site visit.

Species Observations: state none	or estimate #	of individuals	present in	terms of a	in order	of
magnitude (e.g., 10's, 100's,	000's)					

Anostracans:

(note reproductive status)

Notostracans:

(note reproductive status)

Species Observations (Optional):

yes	no	Insects: (adult or larvae)		
yes	no	Anisoptera:	yes	no
yes	no on	Zygoptera:	yes	no
yes)	no Seed sh	Hydrophilidae:	yes	no
yes	по	Dytiscidae:	yes	no
yes	no	Corixidae:	yes	no
yes	no	Notonectidae:	yes	no
yes	no	Belostomatidae:	yes	no
Plan	varia	Other (specify)		
	yes yes yes yes yes yes yes	yes no yes no yes no yes no yes no yes no	yes no Anisoptera: yes no Zygoptera: yes no Hydrophilidae: yes no Dytiscidae: yes no Corixidae: yes no Notonectidae: yes no Belostomatidae:	yes no Anisoptera: yes yes no Zygoptera: yes yes no Hydrophilidae: yes yes no Dytiscidae: yes yes no Corixidae: yes yes no Notonectidae: yes yes no Belostomatidae: yes

Voucher Specimens

D eggs

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

APPENDIX C

Survey Location Photographs



WF 89



Sample Point 1



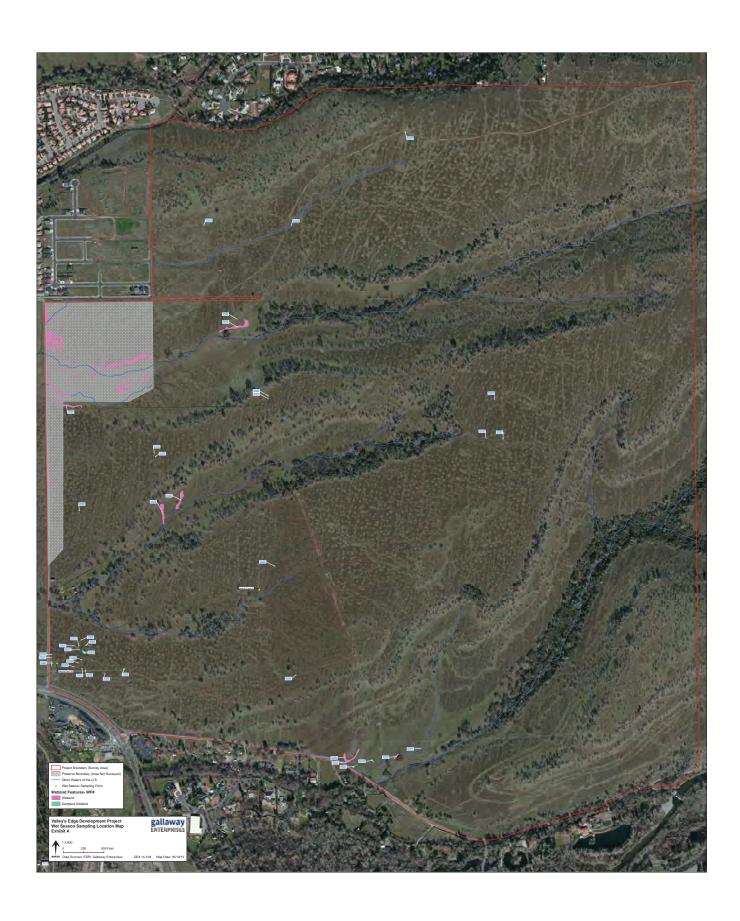
WF 73



WF 74

EXHIBIT A

Wet Season Sampling Location Map



2016 Guideline-level Dry Season Survey for Federally Listed Large Branchiopods

Valley's Edge

Butte County, California



Prepared For:

Gallaway Enterprises, Inc.

18 November 2016



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LIST OF ATTACHMENTS

Attachment A – Dry Season Sampling Locations

Attachment B – Representative Site Photographs

Attachment C – Results of the Dry Season Soil Examinations

1.0 INTRODUCTION

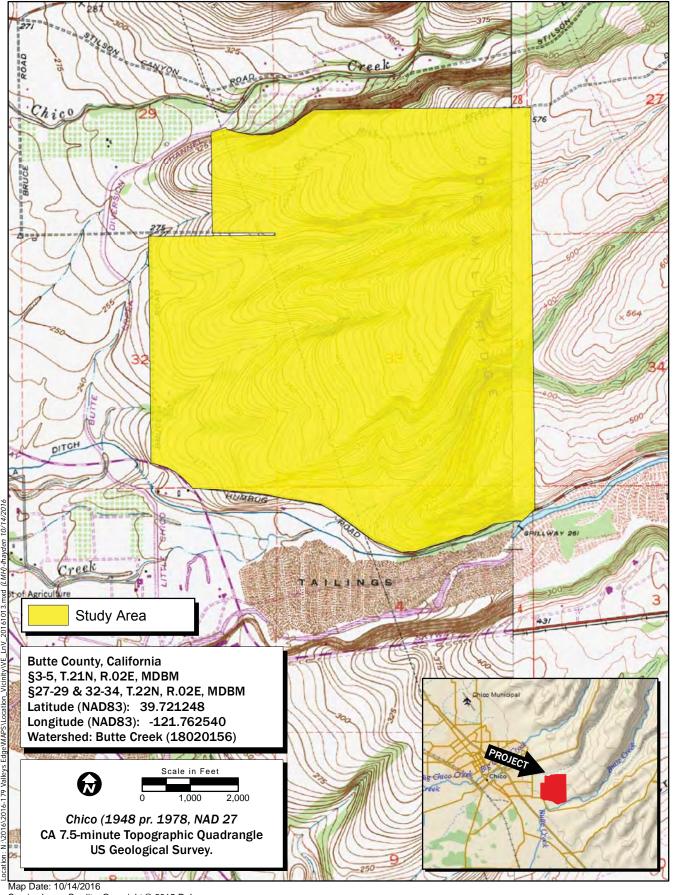
On behalf of Gallaway Enterprises, Inc. (Gallaway), ECORP Consulting, Inc. (ECORP) conducted a U.S. Fish and Wildlife (USFWS) guideline-level dry season survey for federally listed large branchiopods at the Valley's Edge property (Study Area) located in Butte County, California. The purpose of the survey was to determine the presence or presumed absence of large branchiopod species (fairy shrimp, tadpole shrimp, and clam shrimp) listed as threatened or endangered under the federal Endangered Species Act (ESA) (e.g., vernal pool fairy shrimp [*Branchinecta lynchi*] and vernal pool tadpole shrimp [*Lepidurus packardi*]). The surveys were conducted under the authority of USFWS Recovery Permit No. TE-012973 of Section 10(a)(1)(A) of the ESA, 16 U.S.C. 1531 et seq. and in compliance with the 31 May 2015 *Survey Guidelines for the Listed Large Branchiopods* (Guidelines) (USFWS 2015). This report summarizes the methods and results of the dry season survey for the Study Area.

1.1 Location

The Study Area is located north of Humbug Road and east of Potter Road in Butte County, California (Figure 1. *Study Area Location and Vicinity*). The Study Area corresponds to portions of Sections 3-5, Township 21 North, Range 2 East and to portions of Sections 27-29 and 32-34; Township 22 North; Range 2 East (Mount Diablo Base Meridian) of the "Chico, California" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1978). The approximate center of the Study Area is located at 39.721248 North and -121.762540 West within the Butte Creek Watershed (Hydrologic Unit Code #18020156, USGS 2015).

1.2 Dry Season Sampling Locations

Gallaway determined a total of 26 wetland features within the Study Area as potential habitat for federally listed large branchiopods. Six of these features are within the proposed Preserve Boundary. A map of the Study Area and sampling locations are included as Attachment A.



Service Layer Credits: Copyright:© 2015 DeLorme



Figure 1. Study Area Location and Vicinity

2.0 METHODS

Survey methods followed the "dry season survey" protocols outlined in the Guidelines (USFWS 2015). Permitted ECORP biologist Clay DeLong collected dry season soil samples on 13 September 2016.

Dry-season surveys involved the collection of the top one to three cm of pool sediment from the lowest topographic areas within each feature identified as potential federally listed large branchiopod habitat on-site. A hand spade or similar tool was used to collect the sample at each feature and wherever possible, substrate samples were collected in chunks to prevent damage to large branchiopod eggs. The number and amount of soil/substrate samples collected was proportionate to the size of the feature and in accordance with the requirements laid out in Table 1 of the Guidelines (USFWS 2015). Soil samples were placed into liter-size plastic freezer bags and marked with the project name, aquatic feature number, and date. The soil samples were then transferred to ECORP's laboratory.

In the laboratory, a brine solution was prepared by mixing table salt (NaCl) with lukewarm tap water in a large container. The soil material collected from each aquatic feature was placed into the brine solution, and worked by hand to break down soil structure. The organic material rising to the top of the brine solution was poured into a 710-micron-diameter pore-size sieve stacked atop a 150-micron-diameter pore-size sieve. The soil material was processed through the top sieve by flushing it with lukewarm tap water while gently rubbing it with a soft-bristle brush. The organic material retained from the 150-micron-diameter pore-size sieve was then removed and thinly spread into plastic petri dishes.

Under the supervision of permitted dry season biologist Todd Wood, all sieved fractions were microscopically inspected for the presence of large branchiopod eggs by ECORP biologist Daniel Wong. Total egg abundance information for each sampled feature was reported in terms of: low abundance (estimate of 1-10 eggs/sampled feature); medium abundance (estimate of 11-50 eggs/sampled feature); and high abundance (estimate of more than 50 eggs/sampled feature). If no large branchiopod eggs were observed, the field was left blank.

ECORP's branchiopod egg reference collection and scanning electron micrographs of eggs (Gilchrist 1978, Hill and Shepard 1998, and Mura 1991) were used to identify and compare any branchiopod eggs observed within the soil samples. Evidence of other aquatic invertebrates found was also noted on the lab data sheet.

3.0 RESULTS

A total of 26 wetland features were considered potential federally listed large branchiopod habitat by Gallaway and sampled using dry season techniques (see Attachment A).

No eggs belonging to federally listed large branchiopods were observed within any of collected soil samples within the Study Area. Results of the soil examinations are included as Attachment C and representative photographs of the sampled features are included as Attachment B.

Other invertebrate taxa observed in the soil samples included hydracarina, cladocera, collembola, insect exo-skeletons, microturbellaria, nematoda, and ostracoda (see Attachment C).

"We certify that the information in this survey report and attached exhibits fully and accurately represents our work."

Todd Wood 11 October 2016

Date

Clay DeLong 11 October 2016
Date

Daniel Wong

11 October 2016

Date

5.0 REFERENCES

- Gilchrist, B. M. 1978. Scanning electron microscope studies of the egg shell in some Anostraca (Crustacea: Branchiopoda). Cell Tiss. Res. 193: 337-351.
- Hill, R. E., and W. D. Shepard. 1998. Observation on the identification of California anostracan cysts. Hydrobiologia 359: 113-123.
- Mura, G. 1991. SEM morphology of resting eggs in the species of the genus Branchinecta from North America. J. Crust. Biol. 11: 432-436.
- U.S. Fish and Wildlife Service (USFWS). 2015. Survey Guidelines for the Listed Large Branchiopods. 24 pp. Dated: 31 May 2015.
- U.S. Geological Survey (USGS). 1978. "Chico, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.
- U.S. Geological Survey (USGS). 2015. Watershed Boundary Dataset for Placer County, California. Available at http://datagateway.nrcs.usda.gov. Accessed 21 September 2015.

LIST OF ATTACHMENTS

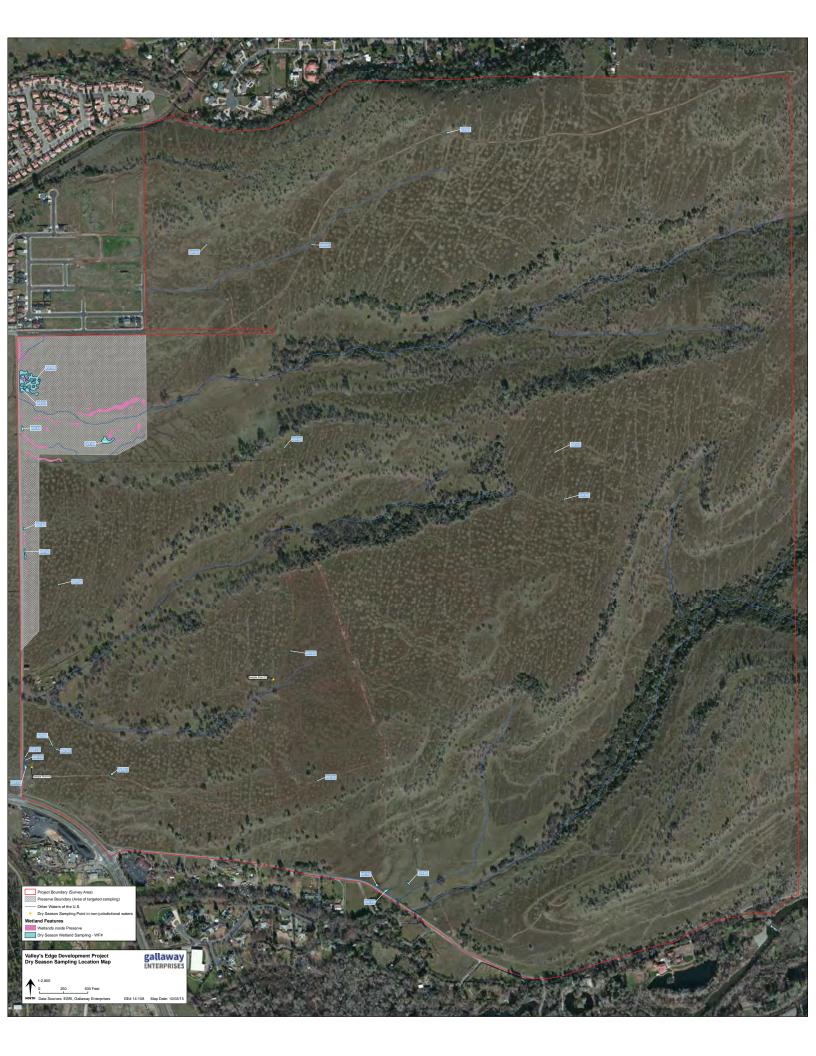
Attachment A – Dry Season Sampling Locations

Attachment B – Representative Site Photographs

Attachment C – Results of the Dry Season Soil Examinations

ATTACHMENT A

Dry Season Sampling Locations

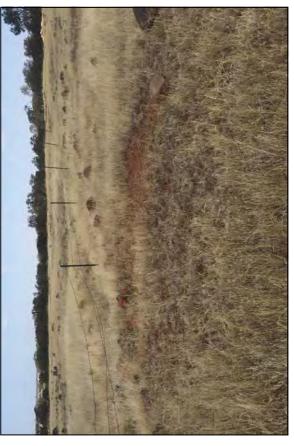


ATTACHMENT B

Representative Site Photographs



Photograph 1. Sample Point #2 in the southwestern portion of the Study Area, view southwest. Photo taken by Clay DeLong on 13 September 2016.



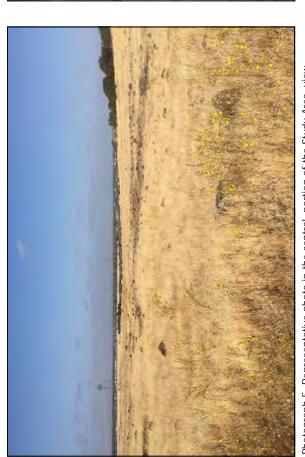
Photograph 2. WF-60 in the central portion of the Study Area, view north. Photo taken by Clay DeLong on 13 September 2016.



Photograph 3. WF-80 in the southern portion of the Study Area, view south. Photo taken by Clay DeLong on 13 September 2016.



Photograph 4. WF-81 in the northwestern portion of the Study Area, view southeast. Photo taken by Clay DeLong on 13 September 2016.



Photograph 5. Representative photo in the central portion of the Study Area, view northwest. Photo taken by Clay DeLong on 13 September 2016.



Photograph 6. Representative photo in the southeastern portion of the Study Area, view north. Photo taken by Clay DeLong on 13 September 2016.



Photograph 7. Representative photo in the southern central portion of the Study Area, view east. Photo taken by Clay DeLong on 13 September 2016.



Photograph 8. Representative photo in the southwestern portion of the Study Area, view west. Photo taken by Clay DeLong on 13 September 2016.

ECORP Consulting, Inc. ENVIRONMENTAL CONSULTANTS

ATTACHMENT C

Results of the Dry Season Soil Examinations



Vernal Pool Branchiopod Dry Season

Project Name: Valley's Edge				Permitted	Biologist:	Todd Wood Project Number:			2016-179		
	Sample			Insect	Micro-		Ostracods				
Feature	Processing	Date	Date	EXo-	Turbellaria	Cladocera	Live/	Copepods	Hydracarina		
Number	Personnel	Collected	Viewed	Skeletons	Live/Cysts	Ephippia	Carapaces	Live	Live	Nematoda	Collembola
Sample Pt.1	D. Wong	9/13/2016	9/27/2016	Х	Х				Х	Х	Х
Sample Pt.2	D. Wong	9/13/2016	9/28/2016	Х	Х				X		
WF-07	D. Wong	9/13/2016	9/27/2016	Χ	Χ		Х		Х	Х	Х
WF-30	D. Wong	9/13/2016	9/27/2016	Х	Х	Х	Х		Х		
WF-34	D. Wong	9/13/2016	9/23/2016	Х	Х				Х	X	X
WF-42	D. Wong	9/13/2016	9/28/2016	Χ					Х		X
WF-46	D. Wong	9/13/2016	9/26/2016	Х	Х				X	X	X
WF-50	D. Wong	9/13/2016	9/23/2016	Х	Х				X	X	
WF-54	D. Wong	9/13/2016	9/26/2016	Χ					X		X
WF-60	D. Wong	9/13/2016	9/26/2016	Х					X		X
WF-64	D. Wong	9/13/2016	9/28/2016	Х			Х		X	X	X
WF-67	D. Wong	9/13/2016	9/27/2016	Χ	Χ				Х	Х	Х
WF-69	D. Wong	9/13/2016	9/27/2016	Х	Х				X	X	X
WF-73	D. Wong	9/13/2016	9/26/2016	Х					X	X	X
WF-74	D. Wong	9/13/2016	9/27/2016	Χ					Х	Х	Χ
WF-75	D. Wong	9/13/2016	9/28/2016	Х	Х				X	X	X
WF-78	D. Wong	9/13/2016	9/28/2016	Χ	Х		Х		Х		
WF-79	D. Wong	9/13/2016	9/26/2016	Χ					Х		Х
WF-80	D. Wong	9/13/2016	9/28/2016	Х	Х				Х		X
WF-81	D. Wong	9/13/2016	9/26/2016	Х	Х				Х	X	X
WF-82	D. Wong	9/13/2016	9/26/2016	Х	Х				Х		Х
WF-83	D. Wong	9/13/2016	9/27/2016	Х			Х		Х	Х	Х
WF-86	D. Wong	9/13/2016	9/27/2016	Х	Х				Х	Х	Х
WF-89	D. Wong	9/13/2016	9/27/2016	Х					Х	Х	Х
WF-90	D. Wong	9/13/2016	9/28/2016	Х	Х				Х		
WF-91	D. Wong	9/13/2016	9/27/2016	Х					Х		

Note: Large branchiopod egg abundance denoted as follows: L = low abundance, estimate of 1-10 eggs/sampled feature; M = medium abundance, estimate of 11-50 eggs/sampled feature; H = high abundance, estimate of more than 50 eggs/sampled feature.



117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

90-Day Report:

Dry Season Surveys for Federally Listed Branchiopods within the Valley's Edge
Development, Butte County, California
USFWS Reference Number: 2019-TA-2967
September 30, 2019

A dry season survey for listed branchiopods was conducted in September of 2019 within the Valley's Edge Development Project (Project). The Project is located within currently unincorporated land on the eastern edge of Chico, Butte County, California. The approximately 1451-acre Project site occurs east of the Potter Road Bike Path and E. 20th Street, with Little Chico Creek occurring along the northern boundary and Honey Run Road and Skyway Road occurring along the southern boundary of the property. The Project site occurs within the U. S. Geological Survey (USGS) Chico Quadrangle, Sections 28, 29, 32, 33 Township 22 N, Range 02 E, and Section 4, and 5 Township 21 N, Range 02 E. The Project site contains a total of 6.247 acres of wetland features; however, the vast majority of these features do not pond water for a long enough duration to support large branchiopods. This is because these features are either swales or sloped wetlands or they occur on thin soils and evaporate too quickly. The lack of suitable ponding habitat was observed during the wet season branchiopod surveys conducted on the site in 2014/2015 by Gallaway Enterprises. A table is provided as Attachment A to this report which identifies the wetlands sampled and the wetlands that lacked suitable habitat. Pictures of representative features that lacked suitable habitat are provided in Attachment B.

Past branchiopod sampling efforts within the Project site (which included the 2014/2015 wet season sampling and a 2016 dry season survey conducted by Ecorp) found no listed large branchiopods within the features sampled. However, due to the identification of additional wetlands within the Project site and changes in the on-site preserve boundary since the original wet season and dry season branchiopod surveys were conducted, there are 22 wetlands that are currently proposed to be impacted by the development that were never sampled for the presence/absence of branchiopods. Therefore, in order to confirm the presence/absence of federally listed branchiopods within these wetlands proposed to be impacted, soil samples from these 22 wetlands were collected. Although no large branchiopods were previously observed on the site, there are California Natural Diversity Database (CNDDB) occurrences of *Lepidurus packardi* and *Branchinecta lynchi* to the west of the Project. Therefore, there is a potential for *Branchinecta lynchi* and *Lepidurus packardi* to occur within suitable habitat within the Project site that was not previously sampled.

Soil samples were collected from the 22 wetlands within the Project by Gallaway Enterprises under the U.S. Fish and Wildlife Service (USFWS) Recovery Permit Number TE-13632B-1 in order to perform dry season sampling. Authorization to collect the soil samples was provided by the USFWS via email on September 9, 2019. The soil samples were collected by permittee Elena Gregg on September 13, 2019. The location of the 22 soil samples is depicted on the map provided as **Attachment C** to this letter.

Soil Collection Methods:

The 22 soil samples were collected on September 13, 2019 by permittee Elena Gregg. The soil was collected by using a hand spade to take soil from the top 1 to 3 centimeters of the pool sediment. Whenever possible, the soil was pried up in chunks to decrease the likelihood of damaging cysts. Within each sampled pool, soil was collected mainly from the lowest micro-topographic areas within the pools. The collected soil was deposited into clean, quart-sized re-sealable bags that were labeled with the collection location information. Each of the 22 sample locations were assigned a number (VE WF#) and recorded using a Trimble Geo Explorer 6000 Series GPS Receiver. The map depicting the location of the soil samples is provided as **Attachment C** to this letter. After collecting the soil samples, the re-sealable bags were left open to cool until they were mailed to D. Christopher Rogers for analysis in the laboratory on September 13, 2019. The methodology used and results of the laboratory analysis conducted by Christopher Rogers is provided as **Attachment D** to this letter.

Results:

Based on the results of D. Christopher Rogers' soil analysis, no cysts of large branchiopods were observed in any of the soil samples.

Included as attachments are the following:

Attachment A: Wetland Sampling Summary Table

Attachment B: Pictures of Representative Features Lacking Habitat

Attachment C: 2019 Dry Season Sampling Location Map

Attachment D: Christopher Rogers Dry Season Crustacean Soil Analysis Report

I certify that the field work conducted by Gallaway Enterprises as described in this report and the associated attached map fully and accurately represent my work.

Prepared by,

Elena Gregg, Senior Botanist

Gallaway Enterprises

Attachment A

Wetland Sampling Summary Table

			Prev.		
		Habitat	Sampled	Sampled	
Feature Type	Label	(Y/N)	(Y/N)	2019 (Y/N)	Comments
Vernal Pool	WF002	N	N	N	sloped wetland - took pic
Vernal Pool	WF003	Y	N	Υ	Potential indirect impact
Vernal Pool	WF004	Y	N	Y	Potential indirect impact
Vernal Pool	WF005	N	N	N	100% preserved
Vernal Pool	WF006	N	Υ	N	100% preserved
Vernal Pool	WF007	Y	Y	N	100% preserved
Vernal Pool	WF008	N	Y	N	100% preserved
Vernal Pool	WF009	N	N	N	sloped wetland - took pic
Vernal Pool	WF010	Y	N	Υ	Potential indirect impact
Vernal Pool	WF011	Y	N	Y	Potential indirect impact
Vernal Pool	WF012	N	N	N	sloped wetland
Vernal Pool	WF013	Y	N	N	preserve -hydrologic break
Vernal Pool	WF014	Y	N	N	preserve -hydrologic break
Vernal Pool	WF015	N	N	N	swale/sloped wetland
Vernal Pool	WF016	N	N	N	swale/sloped wetland
Vernal Pool	WF017	N	N	N	swale/sloped wetland
Vernal Pool	WF018	N	N	N	sloped wetland
Vernal Pool	WF019	N	N	N	sloped wetland - took pic
Vernal Swale	WF020	N	N	N	swale/sloped wetland
Vernal Pool	WF021	Υ	N	Υ	new impact zone
Wet Meadow	WF022	N	N	N	did not pond long enough
Vernal Pool	WF023	Υ	Υ	N	Previously sampled
Vernal Pool	WF024	Υ	N	N	preserve -hydrologic break
Vernal Pool	WF025	Υ	N	N	preserve -hydrologic break
Vernal Pool	WF026	N	N	N	part of swale
Vernal Pool	WF027	Υ	N	N	preserve -hydrologic break
Vernal Swale	WF028	Υ	N	N	preserve -hydrologic break
Vernal Pool	WF029	Υ	N	N	preserve -hydrologic break
Vernal Pool	WF030	Υ	Υ	N	Previously sampled
Vernal Swale	WF031	N	N	N	100% preserved
Vernal Pool	WF032	Υ	N	N	100% preserved
Vernal Pool	WF033	N	N	N	100% preserved
Vernal Pool	WF034	Υ	Υ	N	100% preserved
Seasonal Wetland	WF035	N	N	N	100% preserved
Vernal Swale	WF036	N	N	N	Swale/high velocity
Vernal Pool	WF037	Υ	N	N	100% preserved
Vernal Pool	WF038	Υ	N	N	100% preserved
Vernal Pool	WF039	Υ	N	N	100% preserved
Vernal Pool	WF040	N	N	N	Swale/high velocity
Vernal Pool	WF041	Υ	Υ	N	Previously sampled
Vernal Pool	WF042	Υ	Υ	N	Previously sampled
Vernal Pool	WF043	Υ	N	Υ	new impact zone
Vernal Pool	WF044	Υ	N	Υ	new impact zone
Vernal Pool	WF045	Υ	N	Υ	new impact zone

=			Prev.		
		Habitat	Sampled	Sampled	
Feature Type	Label	(Y/N)	(Y/N)	2019 (Y/N)	Comments
Vernal Pool	WF046	Υ	Υ	N	Previously sampled
Vernal Pool	WF047	Υ	N	Υ	new impact zone
Vernal Pool	WF048	Υ	N	Υ	new impact zone
Vernal Pool	WF049	Υ	N	Υ	new impact zone
Vernal Pool	WF050	Υ	Υ	N	Previously sampled
Vernal Pool	WF051	Υ	N	Υ	new impact zone
Vernal Pool	WF052	Υ	N	Υ	new impact zone
Vernal Pool	WF053	Υ	N	Υ	new impact zone
Vernal Pool	WF054	Υ	Υ	N	Previously sampled
Vernal Pool	WF055	Υ	Υ	N	Previously sampled
Vernal Pool	WF056	Υ	Υ	N	Previously sampled
Wet Meadow	WF057	N	N	N	sloped wetland
Wet Meadow	WF058	N	N	N	sloped wetland
Vernal Pool	WF060	Υ	Υ	N	Previously sampled
Vernal Pool	WF061	Υ	Υ	N	Previously sampled
Vernal Pool	WF062	N	N	N	did not pond long enough
Vernal Pool	WF063	N	N	N	did not pond long enough
Vernal Pool	WF064	N	N	N	did not pond long enough
Vernal Pool	WF065	Υ	Υ	N	Previously sampled
Vernal Pool	WF066	Υ	Υ	N	Previously sampled
Vernal Pool	WF067	Υ	Υ	N	Previously sampled
Vernal Pool	WF068	Υ	Υ	N	Previously sampled
Vernal Pool	WF069	Υ	Υ	N	Previously sampled
Vernal Pool	WF070	Υ	Υ	N	Previously sampled
Vernal Pool	WF071	Υ	Υ	N	Previously sampled
Vernal Pool	WF072	N	N	N	did not pond long enough
Vernal Pool	WF073	Υ	Υ	N	Previously sampled
Vernal Pool		Υ	Υ	N	Previously sampled
Vernal Pool	WF075	Υ	Υ	N	Previously sampled
Vernal Pool	WF076	Υ	Υ	N	Previously sampled
Vernal Swale	WF077	N	N	N	swale/sloped wetland
Vernal Pool	WF078	Υ	Υ	N	Previously sampled
Vernal Pool	WF079	Υ	Υ	N	Previously sampled
Vernal Pool	WF080	Υ	Υ	N	Previously sampled
Vernal Pool	WF081	Υ	Υ	N	Previously sampled
Vernal Pool	WF082	Υ	Υ	N	Previously sampled
Vernal Pool	WF083	Υ	Υ	N	Previously sampled
Seasonal Wetland	WF084	N	N	N	100% preserved
Vernal Swale	WF085	N	N	N	100% preserved
Vernal Swale	WF086	N	Υ	N	100% preserved
Vernal Swale	WF087	N	N	N	swale/sloped wetland
Vernal Swale	WF088	N	N	N	swale/sloped wetland
Vernal Pool	WF089	Υ	Υ	N	Previously sampled
Vernal Pool	WF090	Υ	Υ	N	Previously sampled

			Prev.		
		Habitat	Sampled	Sampled	
Feature Type	Label	(Y/N)	(Y/N)	2019 (Y/N)	Comments
Vernal Swale	WF091	N	Υ	N	Previously sampled
Vernal Swale	WF092	N	N	N	swale/sloped wetland
Vernal Pool	WF093	Υ	Υ	N	Previously sampled
Seasonal Swale	WF094	N	N	N	swale/sloped wetland
Seasonal Wetland	WF095a	N	N	N	sloped wetland
Seasonal Wetland	WF095b	N	N	N	sloped wetland
Vernal Swale	WF096	Υ	N	Υ	new feature
Vernal Pool	WF097	Υ	N	Υ	new feature
Vernal Swale	WF098	Υ	N	Υ	new feature
Seasonal Swale	WF099	N	N	N	100% preserved
Vernal Swale	WF100	N	N	N	100% preserved
Seasonal Swale	WF101	N	N	N	swale/sloped wetland
Vernal Pool	WF102	Υ	N	Υ	new feature
Vernal Swale	WF103	Υ	N	Υ	new feature
Seasonal Swale	WF104	N	N	N	swale/sloped wetland
Seasonal Swale	WF105	N	N	N	swale/sloped wetland
Seasonal Swale	WF106	N	N	N	swale/sloped wetland
Seasonal Swale	WF107	N	N	N	swale/sloped wetland
Seasonal Swale	WF108	N	N	N	did not pond long enough
Seasonal Swale	WF109	N	N	N	did not pond long enough
Seasonal Swale	WF110	N	N	N	swale/sloped wetland
Seasonal Swale	WF111	N	N	N	swale/sloped wetland
Seasonal Swale	WF112	N	N	N	swale/sloped wetland
Vernal Swale	WF113	N	N	N	swale/sloped wetland
Seasonal Swale	WF114	N	N	N	swale/sloped wetland
Vernal Pool	WF115	Υ	N	Υ	new feature
Vernal Swale	WF116	N	N	N	swale/sloped wetland
Vernal Pool		Υ	N	Υ	new feature
Seasonal Swale	WF118	N	N	N	swale/sloped wetland
Seasonal Swale	WF119	N	N	N	swale/sloped wetland
Vernal Swale	WF120	N	N	N	sloped wetland - took pic
Vernal Pool	WF121	N	N	N	did not pond long enough
Vernal Swale	WF123	Υ	Υ	N	Sample Point #2
Vernal Swale		N	N	N	swale/sloped wetland
Seasonal Wetland	WF125	N	N	N	swale/sloped wetland
Seasonal Swale	WF126	N	N	N	swale/sloped wetland
Seasonal Swale	WF127	N	N	N	swale/sloped wetland
Seasonal Swale	WF128	N	N	N	swale/sloped wetland
Seasonal Swale		N	N	N	swale/sloped wetland
Vernal Swale	WF130	N	N	N	did not pond long enough
Vernal Pool	WF131	Υ	N	Υ	new feature
Seasonal Swale	WF132	N	N	N	swale/sloped wetland
Vernal Swale		N	N	N	swale/sloped wetland
Seasonal Swale	WF134	N	N	N	swale/sloped wetland

Ī				Prev.		
			Habitat	Sampled	Sampled	
	Feature Type	Label	(Y/N)	(Y/N)	2019 (Y/N)	Comments

Total 22

Attachment B

Pictures of Representative Features Lacking Habitat

Pictures of Features Lacking Suitable Habitat for Listed Invertebrates



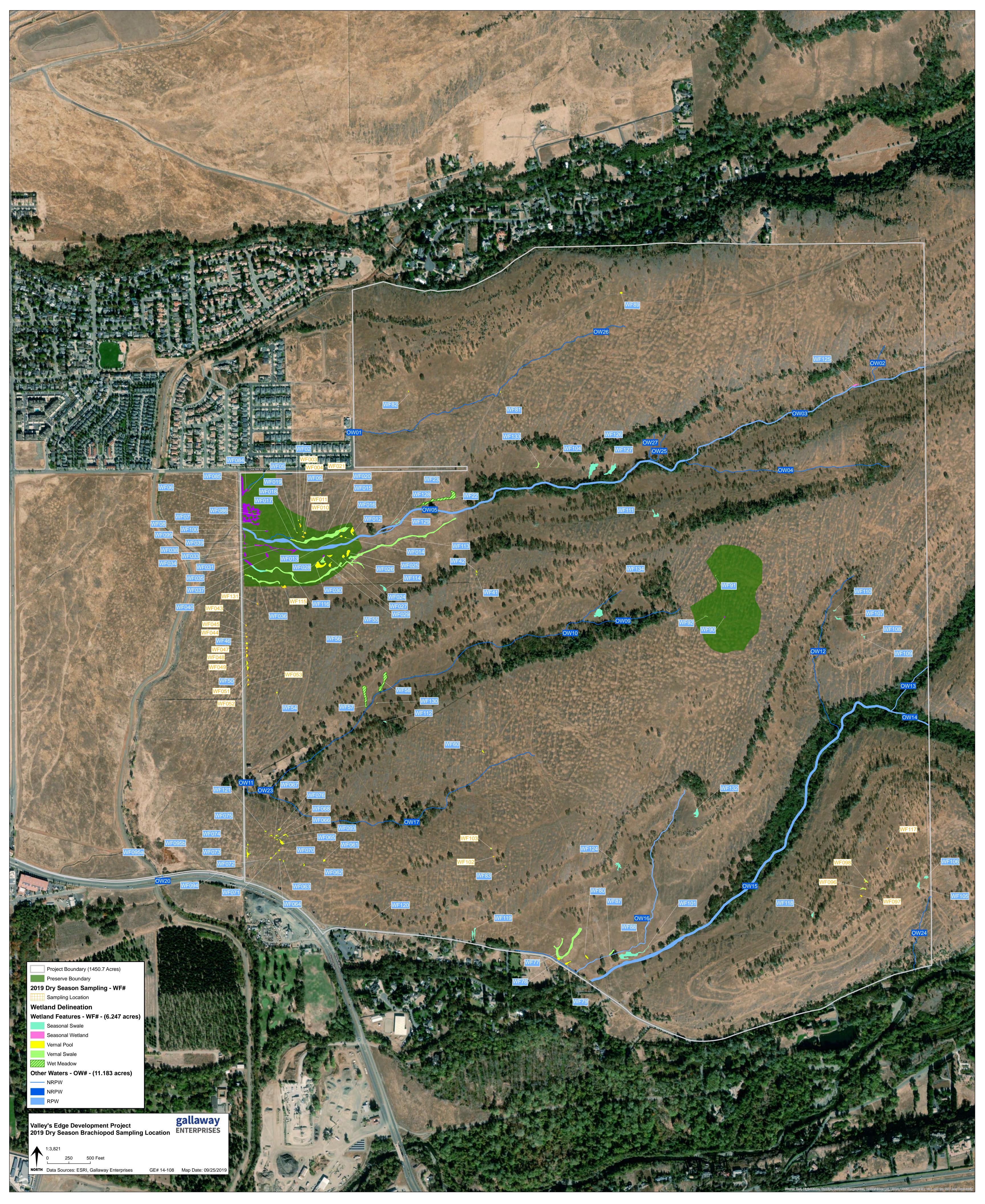
Picture of WF 120 looking south



Picture of WF 19 looking south

Attachment C

2019 Dry Season Sampling Location Map



Attachment D

Christopher Rogers Dry Season Crustacean Soil Analysis Report

The University of Kansas

Kansas Biological Survey

30 September 2019

Elena Gregg Gallaway Enterprises 530.332.9909 117 Meyers St Chico, CA 95928

SUBJECT: Special Status Shrimp Habitat Surveys at the Proposed Valley's Edge Project Site in Chico, California.

Dear Ms. Gregg:

Gallaway Enterprises conducted a dry season survey of potential special status shrimp habitats at the proposed Valley's Edge Project Site (APNs: 017-210-005, 017-210-006, 017-240-023, 017-260-119, 018-390-005, and 018-390-007), Butte County, California, 95973. Soil samples were collected from 22 previously identified habitats that had previously been determined as potential special status shrimp species habitat. No eggs from any large branchiopod (vernal pool) crustaceans were recovered from any of the samples provided by Gallaway Enterprises.

It is my understanding that Gallaway Enterprises will submit this report and all other pertinent materials and information to the US Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (DFW), as required by the USFWS guidelines for a protocol level survey.

Definitions

For the purpose of this report, special status shrimp are defined to include shrimp species listed as threatened or endangered under the federal Endangered Species Act (ESA) (50 CFR 17.11 for listed animals and various Federal Register notices for proposed species). Three special status vernal pool crustacean species (*Branchinecta lynchi*, *Branchinecta conservatio*, and *Lepidurus packardi*) have the potential to occur at the proposed project site. In addition, one non listed fairy shrimp species (*Linderiella occidentalis*) is known from the proposed project vicinity.

Methods

Gallaway Enterprises staff collected soil samples from 22 potential special status shrimp habitats at the proposed project site. Each soil sample was placed in bags, labelled with the locality number, and taken to the Kansas Biological Survey laboratory for analysis. All potential habitats sampled were identified according to the numbers assigned to them by Gallaway Enterprises.

Laboratory Analysis

The University of Kansas

Soil samples were prepared for examination in the laboratory by dissolving the clumps of soil in water and sieving the material through 300- and 150- μm pore size screens. The small size of these screens ensures that the eggs from the shrimp species will be retained. The portion of each sample retained in the screens was dissolved in a brine solution to separate the organic material from the inorganic material. The organic fraction was then examined under a microscope.

Results

No eggs from any large branchiopod (vernal pool) crustaceans were recovered from any of the samples provided by Gallaway Enterprises. No evidence or artefacts of any other vernal pool crustaceans were found either. Flatworm cocoons were found in some samples. These analyses are insufficient by themselves to determine that federally endangered vernal pool crustaceans are absent from this site. The results of this survey must be combined with a protocol wet season survey, and concurrence must be sought from the USFWS before any additional determinations can be made.

If you have any questions please call me.

Sincerely,

D. Christopher Rogers

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Crustacean Taxonomist and Ecologist

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Technical Memo: Post Fire Conditions within the Valley's Edge Development, Butte County, California October 15, 2019

The footprint of the recent Camp Fire extended into the Valley's Edge Development Project (Project) boundary. During a field visit conducted on September 13, 2019 within the Project site, Gallaway Enterprises was able to assess the current conditions of the habitats within the Project to determine what kinds of impacts the recent fire may have had on the natural resources present on the Project site.

Historic Conditions:

The Project site is composed of a mosaic of annual grassland and blue oak foothill pine woodland within a transition zone between the foothills of the Sierra Nevada Mountains and the northern Central Valley. As the Project site transitions into the Central Valley, the annual grassland habitat becomes the predominant habitat type present with the blue oak foothill pine woodland occurring only along the drainages and the edges of bluffs. The annual grassland habitat present within the Project site occurs on very thin soils with the soil depth typically ranging from 0 to 14 inches. Where the soils are exceptionally thin or where the hardpan is exposed, the annual grassland habitat is naturally sparsely vegetated. Scattered wetlands also occur within the annual grassland habitat in the Project site. The vast majority of these wetlands are also naturally more sparsely vegetated either due to the thin soils or the hydrophytic conditions.

Fire is an expected element within the blue oak foothill pine habitat type in California, with fires typically occurring every 5 to 15 years in this habitat type. Based on the Butte County Fire History map that shows the footprint of historic fires in Butte County from 1950 to 2018, there have been a few historic fires that extended fully or partially within the Project boundary.

Results:

The September 13, 2019 field visit conducted by senior botanist Elena Gregg was primarily focused on assessing the wetlands present within the annual grassland habitat; however, much of the site was traversed during this assessment. It was evident during this field visit that the annual grassland and the wetlands within this habitat were unaffected by the recent fire. Burn damage was observed on some of the oaks and foothill pines within the Project site. The portions of the blue oak foothill pine woodland present that sustained the most intense fire damage were in the eastern portion of the Project site. In this portion of the project site, more individual trees showed evidence of significant burn damage but a large percentage of the trees present were still alive. The blue oak foothill pine woodland in the western portion of the Project was not significantly impacted by the fire. No change to the overall function of the blue oak foothill pine woodland within the Project site was observed.

Conclusions and Recommendations:

Based on the results of the field assessment, the annual grassland habitat was unaffected by the fire. As such, the wetland, wildlife and botanical resources historically present within the annual grassland within the Project site are expected to persist post-fire. No additional wetland, wildlife or botanical surveys within the annual grassland habitat within the Project site are necessary or recommended.

Fire damage to the blue oak foothill pine woodland within the Project site was concentrated within the eastern portion of the Project site. Although fire damage did occur to individual trees within the blue oak foothill pine woodland, the overall function of the blue oak foothill pine woodland within the Project site and the understory vegetation present has remained largely unchanged and its use by wildlife persists. Therefore, no additional wetland, wildlife or botanical surveys within the blue oak foothill pine woodland present within the Project site are necessary or recommended. Further, the tree resources assessment that was conducted within the Project site prior to the fire was focused on documenting oak canopy cover and the tree canopy present within the Project site has not changed. The health of individual trees within the tree canopy will likely have changed, but no new assessment of oak tree canopy within the Project site is necessary or recommended.

For any questions regarding this Technical Memo, please contact Jody Gallaway or Elena Gregg at (530) 332-9909.

Prepared by,

Elena Gregg, Senior Botanist

Gallaway Enterprises

Men S



117 Meyers Street, Suite 120, Chico CA 95928



BIOLOGICAL RESOURCE ASSESSMENT

Terrestrial Wildlife and Botanical Resources

Valley's Edge Off-site Infrastructure Project

Chico, California

June 2020



Prepared for: **Chico Land Investment LLC** 2550 Lakewest Drive, Ste. 50 Chico, CA 95928

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BIOLOGICAL RESOURCE ASSESSMENT

Valley's Edge Off-site Infrastructure Project Project Location:

Chico, California

INTRODUCTION

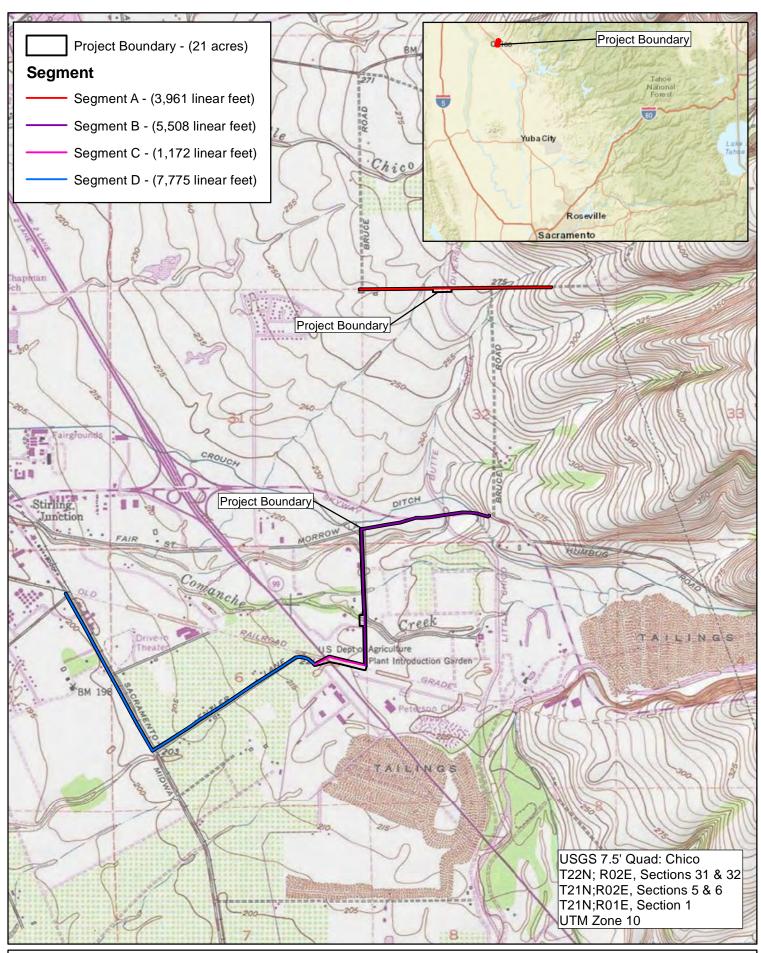
Purpose and Overview

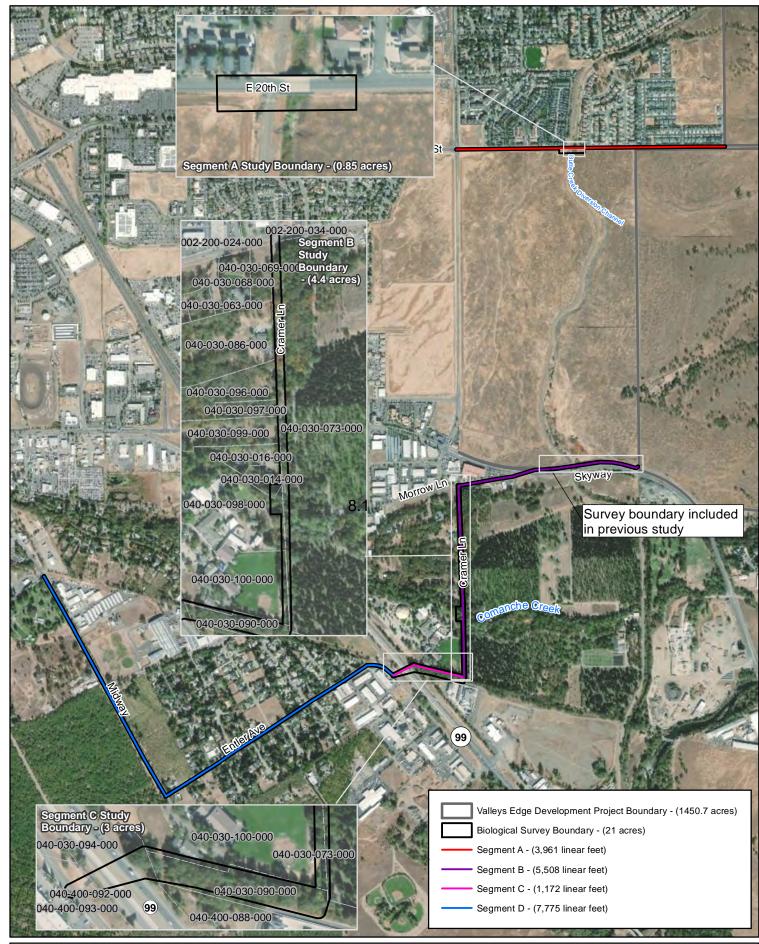
The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive, and rare species and their habitats that occur or may occur in the biological survey area (BSA) of the Valley's Edge Off-site Infrastructure Project (Project) area located in Chico, Butte County, California (Figure 1). The infrastructure alignment includes four distinct segments, which are depicted in Figure 2. Segment A includes the crossing of an overflow flood channel on 20th Street, segment B travels along Skyway, Morrow Lane, then south on Cramer Lane, until it reaches the abandoned railroad bed, segment C travels west along the railroad bed, under State Highway 99 until it reaches Entler Avenue, Segment D includes the section of the project where the infrastructure will be placed in the paved portion of Entler Avenue which will connect to existing utilities in the Midway. The infrastructure consists of underground utilities, water, and sewer.

The BSA is the area where biological surveys are conducted (**Figure 2**). Gallaway Enterprises conducted biological and botanical habitat assessments in the BSA to evaluate site conditions and potential for biological and botanical species to occur. Other primary references consulted include species lists and information gathered using United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation System (IPaC), California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of habitat assessments and surveys and recommendations for avoidance and minimization measures.

Project Location and Environmental Setting

The BSA is located within the City of Chico. The infrastructure alignments follow existing roads and/or existing utility corridors. The width of the BSA is between 30 and 130 feet. The survey area ranges in elevation from 140 to 240 feet above sea level and is sloped between 0-2 percent. Soils within the survey area are fine, sandy loams with a deep restrictive layer located more than 80 inches deep. Within segment A the proposed off-site infrastructure will stay within the paved portion of 20th Street and will cross Butte Creek Diversion Channel. Within segment B the infrastructure construction will be trenched in the road shoulder of Skyway, Morrow Lane, and Cramer Lane. The alignment crosses the Butte Creek Diversion Channel at Skyway before crossing





over to Morrow Lane. Traveling on Cramer lane the project will cross several swale-like depressions and Comanche Creek, before turning west towards State Highway 99. Segment B is mostly within paved sections of roads until it crosses Comanche Creek, where is travels overland through valley oak woodland and highly disturbed grassland. It then crosses State Highway 99 and connects to existing infrastructure in Entler Road. From Entler Road to the terminus in Midway, the project will be contained in the paved portion of the road.

The BSA consists of urban, barren and valley foothill riparian habitat types. The habitat conditions within the BSA are highly degraded due to existing development and the previous installation of utilities (e.g. underground water and gas lines). Within segment B south and west of Comanche Creek the project traverses overland, but the alignment is located in an existing utility corridor, thus permanent impacts to trees is not expected.

Habitat Type Descriptions

URBAN

Urban habitat is present around the edges of the BSA, which is composed of residential homes, business parking lots and associated landscaping. This environment can present a mosaic of vegetation, including primarily ornamental landscaping, but can incorporate native tree species. Generalist and invasive species often occupy urban habitat, such as common raven (*Corvus corax*), house *sparrow* (*Passer domesticus*), scrub jays (*Aphelocoma californica*) and brewers blackbirds (*Euphagus cyanocephalus*) as well as small to medium mammals (e.g. raccoon [*Procyon lotor*], opossum [*Didelphis virginiana*]) (Mayer and Laudenslayer 1998).

BARREN

Within the BSA, the roadways and road shoulder are characterized as barren habitat. Barren habitat is defined by the absence of vegetation. The barren habitat within the Project consists primarily of asphalt, concrete, and gravel. Although some ground-nesting avian species, such as killdeer (*Charadrius vociferous*), and small reptiles, such as western fence lizards (*Sceloporus occidentalis*), can be found breeding in barren habitat, it is typically considered low-quality habitat for most wildlife species.

VALLEY FOOTHILL RIPARIAN

Valley foothill riparian habitat occurs within the southern portion of segment B (Appendix A, site photos). The tree canopy is dominated by California sycamore (*Platanus racemosa*), Oregon ash (*Fraxinus latifolia*), valley oak (*Quercus lobata*), and black walnut (Juglans hindsii). Underneath the canopy wild grape (*Vitis californica*) Himalayan blackberry, and ornamental vegetation occur. The transition from this habitat type to urban habitat is often abrupt. Valley-foothill riparian habitats provide food, water, migration and dispersal corridors for fish species and escape, nesting, and thermal cover for an abundance of other wildlife species. The USDA operates the Mendocino National Forest Genetic

Resource Center south of Morrow lane and east of Cramer Lane. Several different types of conifers overhang Cramer Lane.

Project Description

The proposed project consists of trenching to install underground utilities such as sewer, water, and power and/or connecting to existing infrastructure. Whenever the proposed alignment crosses a swale, Butte Creek Diversion Channel, and Comanche Creek the infrastructure will involve jack and bore under the features. Thus no direct impacts to these resources are anticipated. Jack and bore involves horizontal boring two between two points without disturbing the surface of the feature that is crossed.

METHODS

References Consulted

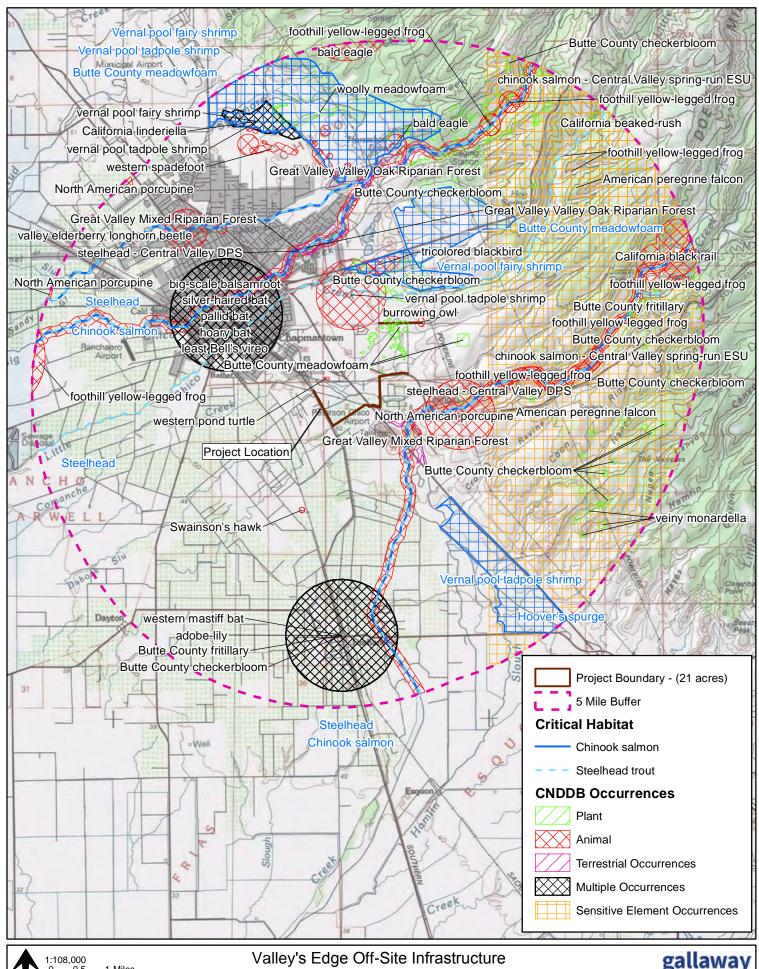
Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a 5-mile radius of the BSA (**Figure 3**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed, and candidate species and their habitats within the BSA used in the preparation of this BRA are:

- The USFWS IPaC Species List for the Project area, June 4, 2020, (Appendix B; Species Lists);
- The results of a species record search of the CDFW CNDDB RareFind 5 for the 7.5 minute United States Geological Survey (USGS) USGS "Chico," "Ord Ferry," "Nord," and "Richardson Springs" 7.5 minute quadrangles (Appendix B; Species Lists);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS USGS "Chico," "Ord Ferry," "Nord," and "Richardson Springs" 7.5 minute quadrangles (Appendix B; Species Lists);
- USFWS Critical Habitat Portal, June 4, 2020; and

Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the California Fish and Game Code (CFGC) (e.g. Fully Protected species);
- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);



- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA §15380).

Critical Habitat

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

The USFWS Critical Habitat Portal was accessed on June 4, 2020 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

Sensitive Natural Communities

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated as such because they represent a historical landscape and are typically preserved as valued components of California's diverse habitat assemblage.

Habitat Assessments and Resource Surveys

Habitat assessments and resource surveys were conducted by senior biologist on June 2, 2020. Habitat assessments for botanical and wildlife species were conducted to determine the suitable habitat elements for special-status species within the BSA. The habitat assessments were conducted by walking the entire BSA, where accessible, and recording observed species and specific habitat types and elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), microclimate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns.

RESULTS

Critical Habitat

There is no designated critical habitat within the BSA.

Sensitive Natural Communities

No SNCs occur within the BSA.

Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS IPaC and CNDDB species lists and the CNPS lists of rare and endangered plants within the

"Chico," "Ord Ferry," "Nord," and "Richardson Springs" USGS 7.5 minute quadrangles and their potential to occur within the BSA is described in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies, performing surveys, and evaluating habitat characteristics.

Table 1. Special-status species and their potential to occur in the BSA of the Valley's Edge Offsite Infrastructure Project, Butte County, CA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present / Absent	Potential to Occur/Rationale						
SENSITIVE NATURAL COMMUNITIES											
Great valley cottonwood riparian forest	N/A	SNC	Riparian forest.	A	None. This CDFW- designated SNC does not occur in the BSA.						
Great valley mixed riparian forest	N/A	SNC	Riparian forest.	А	None. This CDFW-designated SNC does not occur in the BSA.						
Great valley valley oak riparian forest	N/A	SNC	Riparian forest.	A	None. This CDFW- designated SNC does not occur in the BSA.						
Great valley willow scrub	N/A	SNC	Willow scrub.	A	None. This CDFW- designated SNC does not occur in the BSA.						
Northern hardpan vernal pool	N/A	SNC	Vernal pool.	A	None. This CDFW- designated SNC does not occur in the BSA.						
Northern volcanic mud flow vernal pool	N/A	SNC	Vernal pool.	A	None. This CDFW- designated SNC does not occur in the BSA.						
PLANTS				•							

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present / Absent	Potential to Occur/Rationale
Ferris' milk- vetch	Astragalus tener var. ferrisiae	CNPS 1B.1	Meadows and seeps (vernally mesic), and valley and foothill grassland (subalkaline flats). (BP: Apr – May)	А	None. There is no suitable habitat present within the BSA.
Big-scale balsamroot	Balsamorhiza macrolepis	CNPS 1B.2	Typically serpentine grasslands and openings in chaparral and woodlands. (Mar-Jun)	А	None. There is no suitable habitat present within the BSA.
Pink creamsacs	Castilleja rubicundula var. rubicundula	CNPS 1B.2	CNPS Seeps and mesic area		None. There is no suitable habitat present within the BSA.
White- stemmed clarkia	Clarkia aracilis CNPS		Freshwater marshes and swamps, often in rip-rap. (Jun – Sep)	А	None. There is no suitable habitat present within the BSA.
Silky cryptantha	Cryptantha crinita	CNPS 1B.2	Gravelly streambeds. (Apr – May)	А	None. There is no suitable habitat present within the BSA.
Hoover's spurge	Euphorbia hooveri	FT/CNPS 1B.2	Vernal pools on volcanic mudflow or clay substrate. (Jul – Sept [Oct])	А	None. There is no suitable habitat present within the BSA. No effect.
Butte County fritillary	Fritillaria eastwoodiae	CNPS 3.2	Usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy in chaparral, cismontane woodland, lower montane coniferous forest. (Mar – Jun)	А	None. There is no suitable habitat present within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present / Absent	Potential to Occur/Rationale
Adobe lily	Fritillaria pluriflora	CNPS 1B.2	Adobe soils. (Feb- Apr)	А	None. No adobe soils present in the BSA.
Wooly rose mallow	Hibiscus lasiocarpos var. occidentalis	CNPS 1B.2	Freshwater marshes and swamps, often in rip-rap. (Jun – Sep)	А	None. Species was not observed during focused survey.
California satintail	Imperata brevifolia	CNPS 2B.1	Alkaline seeps and mesic riparian scrub. (Sep-May)	А	None. There is no suitable habitat present within the BSA.
Red Bluff dwarf rush	Juncus leiospermus var. leiospermus	CNPS 1B.1	Vernal pools and vernally mesic habitats. (Mar-Jun)	А	None. There is no suitable habitat present within the BSA.
Butte County meadowfoam	Limnanthes floccosa ssp. californica	FE/SE/ CNPS 1B.1	Vernal pools and swales. (Mar-May)	А	None. There is no suitable habitat present within the BSA. No effect.
Veiny monardella	Monardella venosa	CNPS 1B.1	Heavy clay soils in cismontane woodland and valley and foothill grassland. (May, Jul)	А	None. There is no suitable habitat present within the BSA.
Ahart's paronychia	Paronychia ahartii	CNPS 1B.1	Vernal pools and mesic habitat in stony, barren clay soils. (BP: Feb – Jun)	А	None. There is no suitable habitat present within the BSA.
California beaked-rush	Rhynchospora californica	CNPS 1B.1	Freshwater seep and marsh habitats (May – Jul)	А	None. There is no suitable habitat present within the BSA.
Butte County checkerbloom	Sidalcea robusta			А	None. There is no suitable habitat present within the BSA.

				Habitat	
Common	Scientific	Status	General Habitat	Present	Potential to
Name	Name		Description	/	Occur/Rationale
				Absent	
Slender- leaved pondweed	Stuckenia filiformis ssp. alpina	CNPS 2B.2	Shallow freshwater mashes (May – Jul)	А	None. There is no suitable habitat present within the BSA.
Greene's tuctoria	Tuctoria greenei	FE/SR/C NPS 1B.1	Vernal pools in open grasslands. (May – Jul [Sept])	А	None. No vernal features occur within the BSA.
Brazilian watermeal	Wolffia brasiliensis	CNPS 2B.3	Shallow freshwater marshes (Apr – Dec)	А	None. No suitable habitat and was not observed within the BSA during the protocol-level survey.
INVERTEBRATE	S				
Conservancy	Branchinecta				None. No vernal
fairy shrimp	conservatio	FE	Vernal pools.	Α	features occur within the BSA.
Vernal pool fairy shrimp	Branchinecta lynchi	FT	Vernal pools.	А	None. No vernal features occur within the BSA.
Valley elderberry longhorn beetle	Desmocerus californicus dimorphus	FT	Elderberry shrubs usually associated with riparian areas.	А	There are several clusters of blue elderberry shrubs adjacent to the BSA, but none in the BSA.
Vernal pool tadpole shrimp	Lepidurus packardi	FE	Deep vernal pools.	А	None. No vernal features occur within the BSA.
FISH					
Chinook salmon Central Valley (CV) spring- run Evolutionarily Signficant Unit (ESU)	Oncorhynchus tshawytscha	FT/ST	Sacramento River and its tributaries.	А	Comanche Creek does not provide habitat for salmonids.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present / Absent	Potential to Occur/Rationale		
Chinook salmon Sacramento River winter- run ESU	Oncorhynchus tshawytscha	FE/SE	Sacramento River and its tributaries.	А	Comanche Creek does not provide habitat for salmonids.		
California Central Valley steelhead	Oncorhynchus mykiss	The Figure 1 in an in Rivers and		Oncorhynchus FT Joa		А	Comanche Creek does not provide habitat for salmonids.
REPTILES & AM	PHIBIANS						
Giant garter snake	Thamnophis gigas	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	А	None. Comanche Creek in the BSA is a cold fast moving waterway and does not provide habitat for GGS. There are no CNDDB occurrences within 5 miles of the BSA.		
California red- legged frog	Rana draytonii	FT/ SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds.	А	None. California red- legged frogs have been extirpated from the Central Valley floor since the 1960s (USFWS 2002). There are no CNDDB occurrences within 25 miles of the BSA.		

				Habitat	
Common	Scientific	Status	General Habitat	Present	Potential to
Name	Name		Description	/ Absent	Occur/Rationale
Western spadefoot	Spea hammondii	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Intermittent pools are essential for breeding and egglaying.	А	None. There is no suitable upland habitat present in the limited areas of grassland adjacent to BSA.
Western pond turtle	Emys marmorata	SSC	Perennial or nearly permanent bodies of water with basking sites.	НР	There is suitable habitat for western pond turtle within Comanche Creek when water is present.
BIRDS		<u> </u>	<u> </u>		=
Tricolored blackbird	Agelaius tricolor	ST	Freshwater marsh, swamps, wetlands, and agricultural fields associated with wetlands.	А	None. The BSA does not provide suitable habitat elements for tricolored blackbird during their nesting season.
Burrowing owl	Athene cunicularia	SSC	Grasslands or openings with friable soils, rodent burrows, or manmade structures (e.g. culverts, debris piles).	А	None. There is no suitable nesting or foraging habitat present within the BSA.
Swainson's hawk	Buteo swainsoni	ST	Valleys and low foothills. Requires tall trees for nesting and open land for foraging, preferably grasslands and grain or pasture fields.	А	There is no suitable nesting or foraging habitat within the BSA.
Western yellow-billed	Coccyzus americanus	FT/SE	Contiguous patches of dense, multi- layered riparian	А	None. The BSA does not contain suitable habitat.

				Habitat	
Common	Scientific		General Habitat	Present	Potential to
Name	Name	Status	Description	/	Occur/Rationale
Nume	Nume		Description	, Absent	Occur, Rationale
				Absent	
cuckoo	occidentalis		habitat greater than		
			325 feet in width and		
			200 acres in extent along dynamic river		
			systems.		
			3,3101113.		
			Coast, large lakes and		None. No suitable
Bald Eagle	Haliaeetus	SE/FP	river systems, with	Α	nesting or foraging
	leucocphealus	,	open forests with	, ,	habitat within or
			large trees and snags.		adjacent to the BSA.
			Brackish and fresh		Nama Nat Const.
	Laterallus		emergent wetlands		None. Not found on
California	jamaicensis	ST/FP	with dense	А	the valley floor; there is no suitable habitat
black rail	coturniculus		vegetation		present within the
			(bulrushes and		BSA.
			cattails).		55/1.
			Requires vertical		
			banks/cliffs with fine-	А	None. There is no
Bank swallow	Riparia riparia	ST	textured/sandy soils		suitable habitat
			near streams, rivers, lakes, ocean to dig		present within the BSA.
			nesting hole.		DSA.
Mammals			mesting note:		
			Roost in bridges and		Mature trees with
			manmade structures		sloughing bark and/or
Dallid Dat	Antrozous	ccc	with large crevices,	110	cavities provide
Pallid Bat	pallidus	SSC	as well as hollow	HP	suitable day roosting
	•		trees and cavernous		habitat within the
			environments.		BSA.
			Roosts in crevices in		
Western			steep cliff faces or in		None. There is no
	Eumops perotis	666	the roof eaves of		suitable roosting
mastiff bat	californicus	SSC	buildings of two or	Α	habitat within the
			more stories (needs vertical faces to take		BSA.
			flight).		25/ 11
			mgnt).		

Code Designations

Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Candidate (SC), State Species of Special Concern (SSC); California Native Plant Society (CNPS); Sensitive Natural Community (SNC)

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

Endangered, Threatened, and Rare Plants

There were no endangered, threatened, or rare plants observed within the BSA during the botanical habitat assessment and survey conducted on June 2, 2020.

Endangered, Threatened, and Special-status Wildlife

A wildlife habitat assessment was conducted within the BSA on June 2, 2020. Suitable habitat was identified for several avian species protected under the MBTA and CFGC. Several blue elderberry shrubs, which could provide habitat for the valley elderberry longhorn beetle, were recorded immediately adjacent to the utility corridor (**Figure 4**).

Valley Elderberry Longhorn Beetle

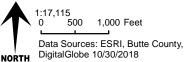
The valley elderberry longhorn beetle (VELB, *Desmocerus californicus dimorphus*) is listed as threatened under the federal ESA. The VELB is a medium-sized (0.8 inch long) beetle that is endemic to the Central Valley of California. The beetle is found only in association with its host plant, elderberry (Sambucus spp.). Adults feed on the foliage and flowers of elderberry shrubs and are present from March through early June. During this period the beetles mate and females lay eggs on living elderberry plants. The first instar larvae bore to the center of elderberry stems where they feed on the pith of the plant for 1 to 2 years as they develop. Prior to forming their pupae, the wood-boring larvae chew through the bark and then plug the holes with wood shavings. In the pupal chamber, the larvae metamorphose into their pupae and then into adults where upon they emerge between mid-March through June (USFWS 1991). The most prominent threat to VELB is riparian habitat destruction causing extirpation, fragmentation, and isolation of beetle populations (USFWS 1991).

Status of VELB occurring in the BSA

All elderberry shrubs occur outside but adjacent to the BSA. All of the shrubs have large multiple stems and occur in riparian habitat. All of the shrubs appear to have exit holes although no fresh or current exit holes were observed. Elderberry shrubs 4 and 5 occur within the Caltrans right-of-way. Per the *Framework for Assessing Impacts to Valley Elderberry Longhorn Beetle*, Gallaway Enterprises consulted with the USFWS to confirm our assessment that no impacts to VELB will occur and no compensatory

Figure 4. Location of	f Elderl	berry Bus	hes.
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mitigation is required. Email correspondences with Samuel Sosa of the USFWS on June 3, 2020 concurred with our finding of no direct impact and no effect on valley elderberry longhorn beetle (Sosa, 2020 pers. comm.)

Western Pond Turtle

Western pond turtles are a SSC in the state of California. They inhabit bodies of water such as creeks, ponds, and marshes. Comanche Creek contains fast-moving water with fresh emergent wetland fringes and woody debris. The wetland fringes are suitable areas for western pond turtles to find refuge and food. The woody debris present may serves as basking areas for turtles. However, the dense closed canopy vegetation and fast-moving water present within Comanche Creek makes the BSA only moderately suitable habitat for western pond turtles. There is one (1) CNDDB occurrence of western pond turtle within close proximity of Comanche Creek, located approximately a half-mile west of the BSA. The CNDDB occurrence (#1227) was recorded in 2010 and is presumed extant. It is located north of Comanche Creek on the other side of Fair Street, within the Fair Street Ponds, which is hydrologically connected to Comanche Creek. This location features open, sunny areas for basking.

No western pond turtles were observed during the habitat assessment. There is a low potential for western pond turtles to occur in the BSA based on the presence of suitable aquatic habitat and CNDDB records in close proximity of the BSA.

Migratory Birds and Raptors

Nesting birds are protected under the MBTA (16 USC 703), the CFGC (§3503), and the California Migratory Bird Protection Act (CMBPA, AB 454). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take. Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and the CFGC.

Status of migratory birds and raptors occurring in the BSA

There is suitable nesting habitat for a variety of avian species within and adjacent to the BSA.

REGULATORY FRAMEWORK

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

Federal

Federal Endangered Species Act

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either "endangered" or "threatened." Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of "candidate" species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. "Proposed" species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Migratory Bird Treaty Act

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species

or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "species of special concern" receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Game Code (§3503.5)

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

California Migratory Bird Protection Act

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take.

Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and CFGC. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31). If vegetation removal or ground-disturbing activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA and CFGC present in the Project area prior to commencement of vegetation removal or ground-disturbing activities. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

Rare and Endangered Plants

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;

- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Game Code §1913 exempts from the 'take' prohibition "the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way."

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

CONCLUSIONS AND RECOMMENDATIONS

Endangered, Threatened, and Rare Plants

There are no special-status botanical species present within the BSA and no suitable habitat for special-status botanical species was identified within the BSA; therefore, there will be no effects to botanical species and no avoidance and minimization measures are proposed.

Endangered, Threatened, and Special-status Wildlife

The following are the recommended minimization and mitigation measures to further reduce or eliminate Project-associated impacts to special-status wildlife species. These proposed measures may be amended or superseded by the Project-specific permits issued by the regulatory agencies.

Valley Elderberry Longhorn Beetle

Avoidance of elderberry shrubs will be achieved by implementing a core avoidance area of 20 feet from the drip-line of each elderberry shrub measuring 1 inch or greater in diameter at ground level. The following avoidance and minimization measures shall be implemented per the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017):

- Fencing. All areas to be avoided during construction activities will be fenced and/or flagged as close to construction limits as feasible.
- Avoidance area. Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the dripline, depending on the type of activity.
- Worker education. A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance.
- Construction monitoring. A qualified biologist will monitor the work area at Projectappropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring will depend on the Project specifics and should be discussed with the USFWS.
- Timing. As much as feasible, all activities that could occur within 50 meters (165 feet) of an elderberry shrub, will be conducted outside of the flight season of the VELB (March -July).
- Trimming. Trimming may remove or destroy VELB eggs and/or larvae and may reduce
 the health and vigor of the elderberry shrub. In order to avoid and minimize adverse
 effects to VELB when trimming, trimming will occur between November and February
 and will avoid the removal of any branches or stems that are ≥ 1 inch in diameter.
- Mowing. Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.

Western Pond Turtles

- Immediately prior to conducting work within western pond turtle habitat, a qualified biologist shall conduct a western pond turtle pre-construction survey.
- Worker education. A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of western pond turtles, methods for avoidance, and the procedures for notification if turtles are discovered in the project site.
- If western pond turtles are identified in an area where they will be impacted by Project activities, then the biologist will relocate the turtles outside of the work area or create a species protection buffer (determined by the biologist) until the turtles have left the work area.

Migratory Birds and Raptors

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
 - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.
 - If an active nest (i.e. containing egg[s] or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails as determined by a qualified biologist. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

Other Natural Resources

Tree Removal

If any trees with a diameter at breast height of 6 inches or greater are present within the BSA and proposed for removal, an inventory of the trees and health assessment performed by a qualified arborist will be required by the City. If the removal of any regulated tree pursuant to the City of Chico's Tree Preservation Regulations is proposed, a tree removal permit will have to be obtained and mitigation may be necessary.

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Appendix A

Site Photos

Valley's Edge Off-site Infrastructure Pre-construction Site Photos



Segement B Skyway to start of Morrow Lane



Morrow Lane looking west



Cramer Lane looking north



Cramer Lane crossing at Comanche Creek



Southern end of segment B looking north



Beginning of segment C looking west

Appendix B

Species Lists



*The database used to provide updates to the Online Inventory is under construction. <u>View updates and changes made since May 2019 here</u>.

Plant List

19 matches found. Click on scientific name for details

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3912167, 3912178 3912177 and 3912168;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Modify Sort Display Photos

-	_						
Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	
<u>Astragalus tener var.</u> <u>ferrisiae</u>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
<u>Campylopodiella</u> <u>stenocarpa</u>	flagella-like atractylocarpus	Dicranaceae	moss		2B.2	S1?	G5
<u>Castilleja rubicundula var.</u> <u>rubicundula</u>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
<u>Clarkia gracilis ssp.</u> <u>albicaulis</u>	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
Cryptantha crinita	silky cryptantha	Boraginaceae	annual herb	Apr-May	1B.2	S2	G2
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul- Sep(Oct)	1B.2	S1	G1
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
<u>Hibiscus lasiocarpos var.</u> <u>occidentalis</u>	woolly rose- mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
<u>Juncus leiospermus var.</u> <u>leiospermus</u>	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
<u>Limnanthes floccosa ssp.</u> <u>californica</u>	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	1B.1	S1	G4T1
Monardella venosa	veiny monardella	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1
Paronychia ahartii	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	1B.1	S3	G3
Rhynchospora californica	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
Sidalcea robusta	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2

Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May- Jul(Sep)	1B.1	S1	G1
Wolffia brasiliensis	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr,Dec	2B.3	S2	G5

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Search the Inventory	Information	Contributors
Simple Search	About the Inventory	The Calflora Database
Advanced Search	About the Rare Plant Program	The California Lichen Society
<u>Glossary</u>	CNPS Home Page	California Natural Diversity Database
	About CNPS	The Jepson Flora Project
	Join CNPS	The Consortium of California Herbaria
		CalPhotos

Questions and Comments

rareplants@cnps.org

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Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

 $\label{eq:Quad-span} $$\operatorname{Quad-span} \ style='color:Red'> IS (Chico (3912167)< span \ style='color:Red'> OR Nord (3912178)< span \ style='color:Red'> OR Ord Ferry (3912168))$

Smeeting	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Species adobe-lily	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
Fritillaria pluriflora	1 1012120 7 01 0	140110	140110	0200	0200	15.2
Ahart's paronychia	PDCAR0L0V0	None	None	G3	S3	1B.1
Paronychia ahartii						
Antioch Dunes anthicid beetle	IICOL49020	None	None	G1	S1	
Anthicus antiochensis						
bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Haliaeetus leucocephalus						
bank swallow	ABPAU08010	None	Threatened	G5	S2	
Riparia riparia						
big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Balsamorhiza macrolepis						
Brazilian watermeal	PMLEM03020	None	None	G5	S2	2B.3
Wolffia brasiliensis						
burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Athene cunicularia						
Butte County checkerbloom	PDMAL110P0	None	None	G2	S2	1B.2
Sidalcea robusta						
Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
Fritillaria eastwoodiae						
Butte County meadowfoam	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
Limnanthes floccosa ssp. californica						
California beaked-rush	PMCYP0N060	None	None	G1	S1	1B.1
Rhynchospora californica						
California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Laterallus jamaicensis coturniculus						
California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Linderiella occidentalis	D					
California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Imperata brevifolia	AFOLIA 0205 A	Thursdayad	Thusakanad	05	04	
Chinook salmon - Central Valley spring-run ESU Oncorhynchus tshawytscha pop. 6	AFCHA0205A	Threatened	Threatened	G5	S1	
	CTTE2440CA	None	None	Ca	CO 4	
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
Branchinecta conservatio	ICBNA03010	Liluarigereu	INUILE	G2	32	
Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
Astragalus tener var. ferrisiae	I DI ADUFORS	INOTIC	INOTIC	9211	O1	10.1



Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
flagella-like atractylocarpus	NBMUS84010	None	None	G5	S1?	2B.2
Campylopodiella stenocarpa						
foothill yellow-legged frog	AAABH01050	None	Candidate	G3	S3	SSC
Rana boylii			Threatened			
giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Thamnophis gigas						
great blue heron	ABNGA04010	None	None	G5	S4	
Ardea herodias						
great egret	ABNGA04040	None	None	G5	S4	
Ardea alba						
Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Great Valley Cottonwood Riparian Forest						
Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
Great Valley Mixed Riparian Forest						
Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
Great Valley Valley Oak Riparian Forest						
Great Valley Willow Scrub	CTT63410CA	None	None	G3	S3.2	
Great Valley Willow Scrub						
Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Tuctoria greenei						
hoary bat	AMACC05030	None	None	G5	S4	
Lasiurus cinereus						
Hoover's spurge	PDEUP0D150	Threatened	None	G1	S1	1B.2
Euphorbia hooveri						
least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vireo bellii pusillus						
midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Branchinecta mesovallensis						
North American porcupine	AMAFJ01010	None	None	G5	S3	
Erethizon dorsatum						
Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Hardpan Vernal Pool						
Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Northern Volcanic Mud Flow Vernal Pool						
osprey	ABNKC01010	None	None	G5	S4	WL
Pandion haliaetus						
pallid bat	AMACC10010	None	None	G5	S3	SSC
Antrozous pallidus					0.0	
pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
Castilleja rubicundula var. rubicundula						
Red Bluff dwarf rush	PMJUN011L2	None	None	G2T2	S2	1B.1
Juncus leiospermus var. leiospermus						



Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Smeeting	Element Code	Fodoral Status	State Status	Clohal Bank	State Benk	Rare Plant Rank/CDFW
Species Sacramento anthicid beetle	IICOL49010	None Federal Status	State Status None	Global Rank G1	State Rank S1	SSC or FP
Anthicus sacramento	1100149010	None	None	Gi	31	
silky cryptantha	PDBOR0A0Q0	None	None	G2	S2	1B.2
Cryptantha crinita	1 DBOROA0Q0	None	None	GZ	02	10.2
silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasionycteris noctivagans	7 WV/7 CO CO ZO TO	140110	140110	00	0004	
slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Stuckenia filiformis ssp. alpina						
steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 11						
Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Buteo swainsoni						
tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Agelaius tricolor						
valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Desmocerus californicus dimorphus						
vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta lynchi						
vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Lepidurus packardi						
western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Eumops perotis californicus						
western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Emys marmorata						
western red bat	AMACC05060	None	None	G5	S3	SSC
Lasiurus blossevillii						
western spadefoot	AAABF02020	None	None	G3	S3	SSC
Spea hammondii						
western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coccyzus americanus occidentalis						
white-stemmed clarkia	PDONA050J1	None	None	G5T3	S3	1B.2
Clarkia gracilis ssp. albicaulis						
woolly meadowfoam	PDLIM02043	None	None	G4T4	S3	4.2
Limnanthes floccosa ssp. floccosa						
woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hibiscus lasiocarpos var. occidentalis						
Yuma myotis	AMACC01020	None	None	G5	S4	
Myotis yumanensis						

Record Count: 59

IPaCU.S. Fish & Wildlife Service

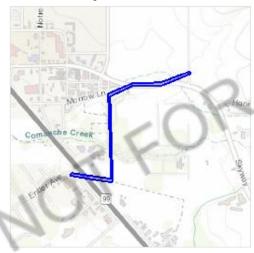
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Butte County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600

(916) 414-6713

Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information.
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME STATUS

Giant Garter Snake Thamnophis gigas

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/4482

Threatened

Amphibians

NAME STATUS

California Red-legged Frog Rana draytonii

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/2891

Threatened

Fishes

NAME STATUS

Delta Smelt Hypomesus transpacificus

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/321

Threatened

Insects

NAME STATUS

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/7850

Threatened

Crustaceans

NAME STATUS

Conservancy Fairy Shrimp Branchinecta conservatio

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/8246

Endangered

Vernal Pool Fairy Shrimp Branchinecta lynchi

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/498

Threatened

Vernal Pool Tadpole Shrimp Lepidurus packardi

There is **final** critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/2246

Endangered

Flowering Plants

NAME STATUS

Butte County Meadowfoam Limnanthes floccosa ssp. californica There is final critical habitat for this species. Your location is outside the critical habitat.

https://ecos.fws.gov/ecp/species/4223

Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act^{1} and the Bald and Golden Eagle Protection Act^{2} .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds
 http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird

species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS
ACROSS ITS ENTIRE RANGE.
"BREEDS ELSEWHERE" INDICATES
THAT THE BIRD DOES NOT LIKELY
BREED IN YOUR PROJECT AREA.)

Bald Eagle Haliaeetus leucocephalus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1626

Burrowing Owl Athene cunicularia

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737

California Thrasher Toxostoma redivivum

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084

Lewis's Woodpecker Melanerpes lewis

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9408

Breeds Jan 1 to Aug 31

Breeds Mar 15 to Aug 31

Breeds Jan 1 to Jul 31

Breeds May 20 to Jul 31

Breeds Apr 20 to Sep 30

Nuttall's Woodpecker Picoides nuttallii

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410

Breeds Apr 1 to Jul 20

Oak Titmouse Baeolophus inornatus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9656

Breeds Mar 15 to Jul 15

Rufous Hummingbird selasphorus rufus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/8002

Breeds elsewhere

Song Sparrow Melospiza melodia

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243

Breeds Apr 15 to Jul 20

Breeds Feb 20 to Sep 5

Wrentit Chamaea fasciata

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10

Yellow-billed Magpie Pica nuttalli

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9726

Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (1)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

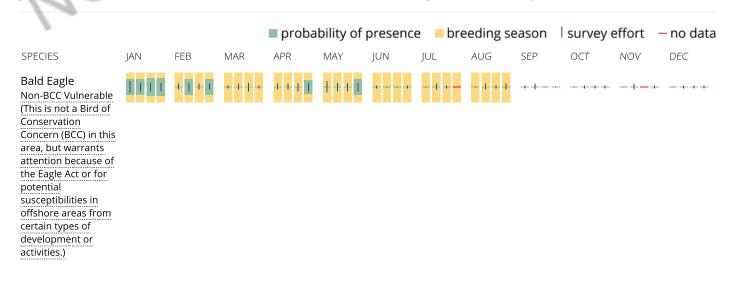
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

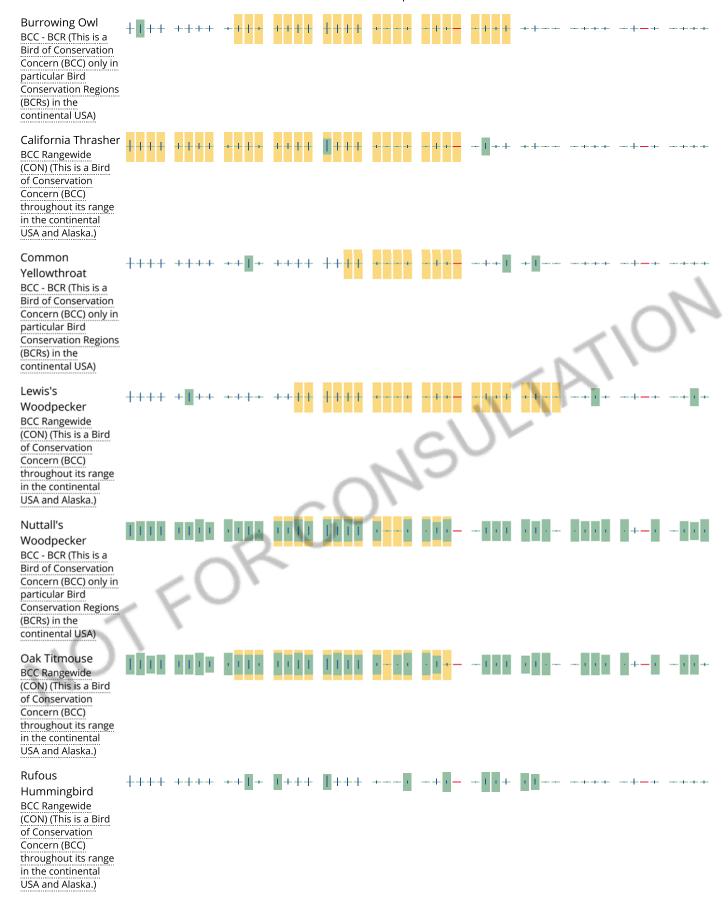
No Data (-)

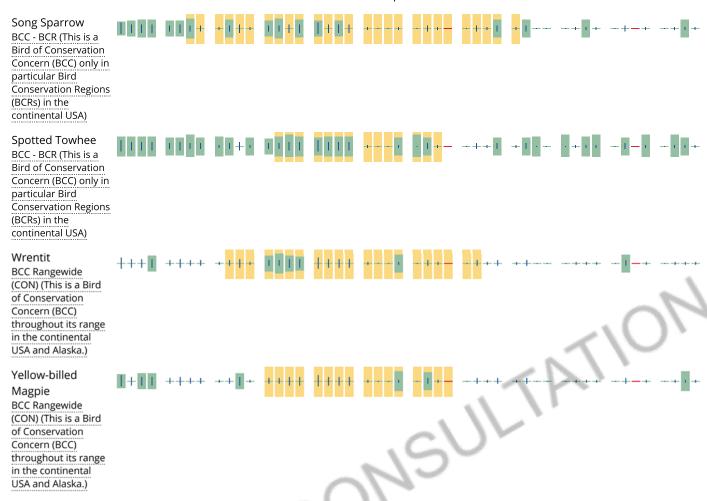
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1Cx PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

PFOA

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

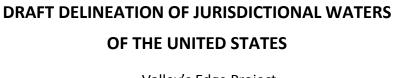
Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.





Valley's Edge Project
Butte County, California

June 2016



Prepared for:

Valley's Edge, Inc. Bill Brouhard 2550 Lakewest Drive, Suite 50 Chico, CA 95928

Prepared by:

Gallaway Enterprises
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List of Appendices and Attachments

Appendix A: Wetland Delineation Data Sheets

Appendix B: Soil Map and Soil Series Descriptions

Attachment A: Draft Delineation of Waters of the United States Maps

DRAFT DELINEATION OF JURISDICTIONAL WATERS OF THE UNITED STATES,

Valley's Edge Project, Butte County, California

Introduction and Project Location

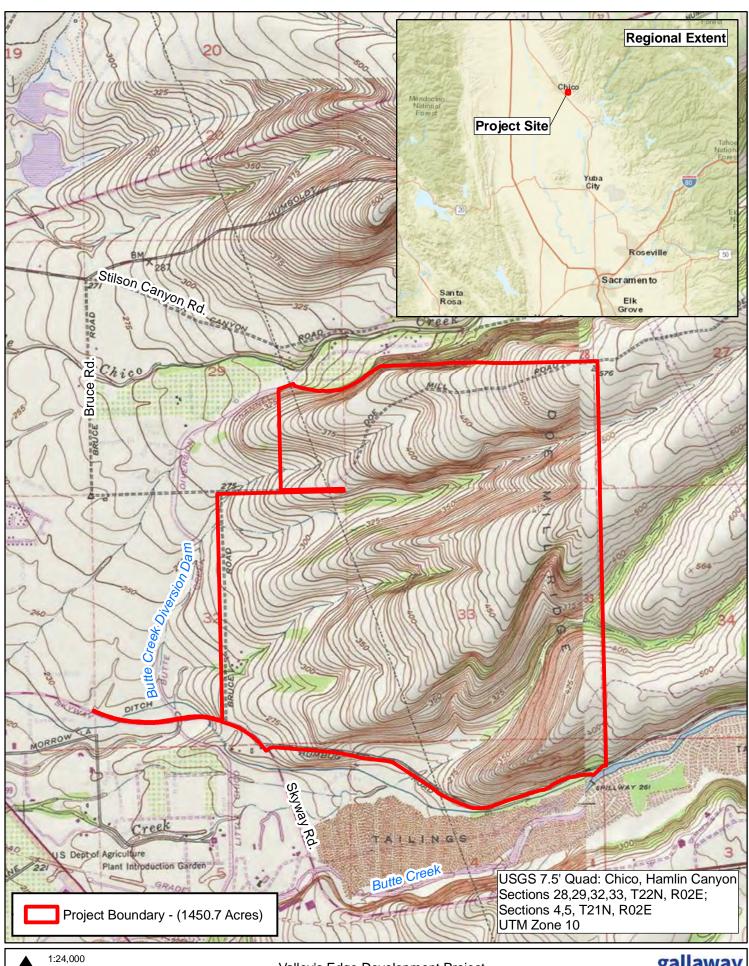
Gallaway Enterprises conducted a delineation of Waters of the U.S. and aquatic resources for the approximately 1450 acre Valley's Edge project (Project) in unincorporated Butte County, CA, located directly east of the city of Chico, CA (Figure 1). The Project is located within USGS Chico Quadrangle, Section 28, 29, 32, and 33 of Township 22 N, Range 02 E, and Section 4, and 5 of Township 21 N, R 02 E. The Project site is located north of Honey Run Road, east of the Potter Road bike path, and south of Doe Mill Road/E. 20th Street at the base of the foothills of the Sierra Nevada mountain range. A utility corridor running west along Skyway Road from the southwest corner of the site is included as part of the Project boundary. The Doe Mill residential development occurs to the north of the Project. The foothills to the east of the Project are undeveloped open land. To the south of Honey Run Road is Butte Creek with low density housing developments and open undeveloped land. There is open land adjacent to the Project, west of the Potter Road bike path, containing vernal complexes, including the Doe Mill Preserve. The proposed Project is a community development comprised of mixed use residential, mixed use commercial, and open space (Figure 2).

A draft wetland delineation was conducted by Gallaway Consulting in 2006 and 2007, but was never submitted to the U.S. Army Corps of Engineers (Corps) for formal verification. A wetland survey was conducted on November 11, 2014 by Senior Botanist, Elena Gregg, and Biologist, Dan Machek, to update the 2006/2007 delineation. Additional field evaluations were conducted by Mr. Machek, on January 14, 2015 and on January 19, 2015 by Ms. Gregg to delineate a utility corridor added to the original Project boundary. A field visit was conducted on May 9, 2016 by GIS analyst Cate Davis and Soils Technician, Sam Rossi to collect Ordinary High Water Mark (OHWM) transects, site photographs, and associated photo points. Data regarding the location and extent of wetlands and other waters of the U.S. were collected using a Trimble Geo Explorer 6000 Series GPS Receiver. The surveys involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the United States Army Corps of Engineers Wetlands Delineation Manual (1987); the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008); the U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook (2007); the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, (2008) and the State of California 2016 Wetland Plant List. Gallaway Enterprises have prepared this report in compliance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (January 2016).

Environmental Setting and Site Conditions

The Project site is currently used for cattle grazing, rock harvesting, and storing bee hive boxes. Within the site, the vegetation community is comprised of annual grassland, with palustrine habitat including vernal features, and blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*) woodland.

The average annual precipitation is 25.66 inches and the average annual temperature is 61° F (WRCC 2015). The region, as has much of California, has experienced several years of drought. The topography of the site is hilled, with a western aspect. The elevation at the Project ranges from 230-520 feet above sea level. Much of the Project site is comprised of rocky mound-swale topography that suggests the presence of wetland signatures when viewing the aerial photography; however, these areas often have



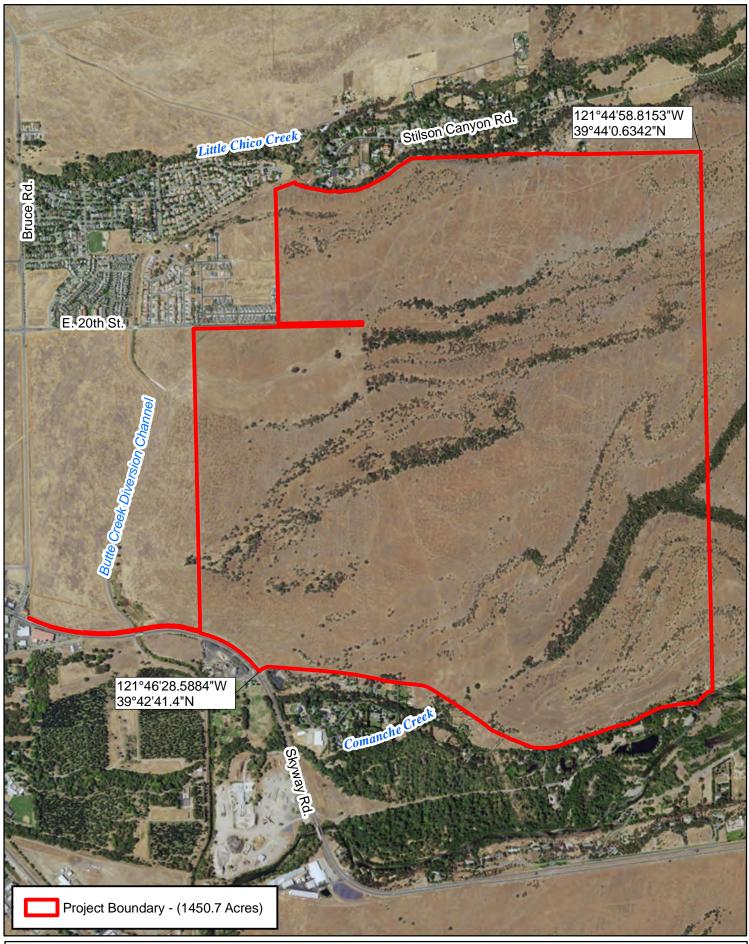
1:24,000 0 1,000 2,000 Feet

Data Sources: ESRI, USGS,

NORTH Butte County

Valley's Edge Development Project Regional Location Figure 1





NORTH C

1:18,000

500 1,000 Feet

Data Sources: ESRI (Base map sourced: 05/11/16), USGS, Butte County

Valley's Edge Development Project Project Location Figure 2



too steep a gradient, exposed hardpan, and thin eroded soil that is unable to support hydrophytic vegetation and hydric soils. Soil depth across the site ranges from 0 to 48 inches, typically not deeper than 14 inches.

Numerous vernal pools and swales are present along the western edge of the Project site; many of these pools were formed when the original Potter Road alignment was constructed, which travels north and south along the western edge of the Project site, and created an impediment. This impediment causes water to pool for longer durations than would naturally occur. A broad finger ridge extends through the center of the Project site with two creek valleys to the north and south of the ridge. South of the ridge, Comanche Creek enters the west side of the Project site, flows southwest, and exits the south side of the site, and north of the ridge, an unnamed drainage flows east to west across the site. One unnamed ephemeral drainage originates in the center of the Project site, flows west, and exits the west side of the Project boundary. All of the drainages flow west off the Project site and enter sloughs or diversion channels that flow in a southwest direction, where they have a direct connection with the Sacramento River.

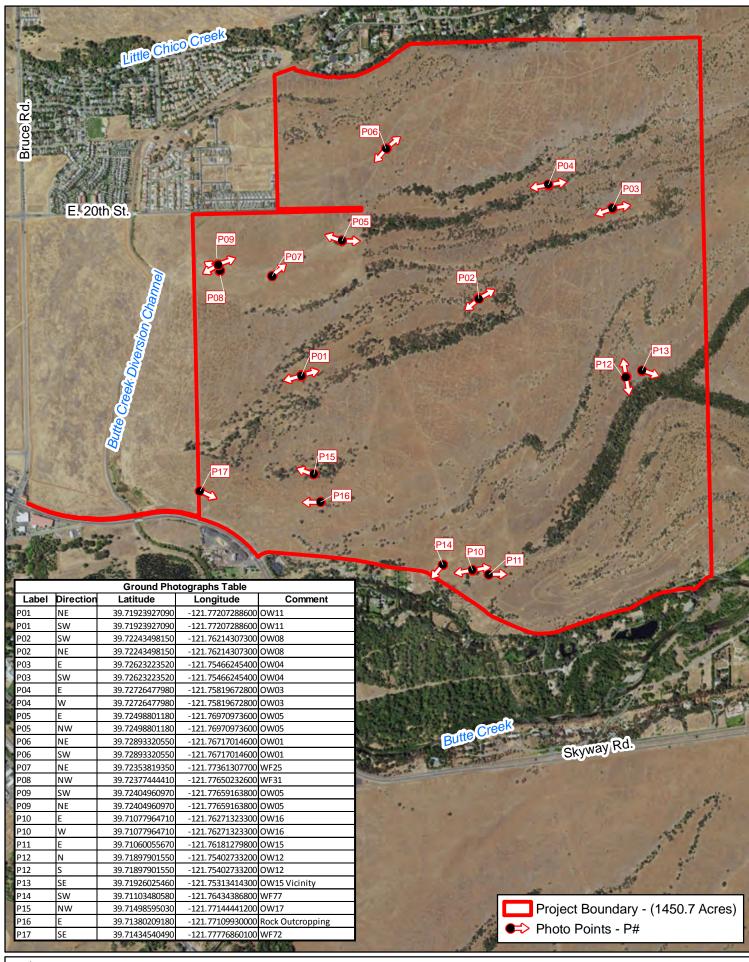
Survey Methodology

The entire site was previously delineated in winter/spring of 2006 and 2007 and this information was incorporated into the current delineation. The entire Project site was surveyed on-foot by Gallaway Enterprises staff on November 11, 2014 and January 14 and 19, 2015 to identify any potentially jurisdictional features. The survey, mapping efforts, and report production were performed according to the valid legal definitions of waters of the United States (WOTUS) in effect on June 6, 2016. The boundaries of non-tidal, non-wetland waters were delineated at the ordinary high water mark (OHWM) as defined in 33 Code of Federal Regulations (CFR) 328.3. The OHWM represents the limit of potential Corps jurisdiction over non-tidal waters (e.g., streams and ponds) in the absence of adjacent wetlands (33 CFR 328.04) (Curtis, et. al. 2011). Field data were entered onto data sheets using the most current format (Appendix A). Wetland perimeters based on the *United States Army Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (2008) (Arid West Manual) were recorded and defined according to their topographic and hydrologic orientation. Sample points were established for each wetland and corresponding upland zone. The locations of the photo points are depicted in Figure 3 and the associated photographs are provided at the end of the report.

Many of the terms used throughout this report have specific meanings relating to the federal wetland delineation process. Term definitions are based on the Corps Wetlands Delineation Manual (1987); the Arid West Manual; Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, (2008) and the Corps Jurisdictional Determination Form Instructional Guidebook (2007). The terms defined below have specific meaning relating to the delineation of Waters of the U.S. as described in 33 CFR Part 328 and 40 CFR Parts 110, 112, and 116, and 122.

Determination of Hydrophytic Vegetation

The presence of hydrophytic vegetation was determined using the methods outlined in the Corps Wetlands Delineation Manual (1987) and the Arid West Manual. Areas were considered to have positive indicators of hydrophytic vegetation if they pass the dominance test, meaning more than 50 percent of the dominant species are OBL, FACW, FAC. Plant species were identified to the lowest taxonomy possible. Plant indicator status was determined by reviewing the 2016 National Wetland Plant List for the Arid West Region-California. In situations where dominance can be misleading due to seasonality,





1:18,000 0 1,000 2,000 Feet

Data Sources: ESRI, Butte County

Valley's Edge Development Project Ground Photographs Map Figure 3 the prevalence index will be used to determine hydrophytic status of the community surrounding sample sites.

Plant indicator status categories:

Obligate wetland plants (OBL) – plants that occur almost always (estimated probability 99%) in wetlands under normal conditions, but which may also occur rarely (estimated probability 1%) in non-wetlands.

Facultative wetland plants (FACW) - plants that usually occur (estimated probability 67% to 99%) in wetlands under normal conditions, but also occur (estimated probability 1% to 33%) in non-wetlands.

Facultative plants (FAC) – Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands.

Facultative upland plants (FACU) – Plants that occur sometimes (estimated probability1% to 33%) in wetlands, but occur more often (estimated probability 67% to 99%) in non-wetlands.

Obligate upland plants (UPL) – Plants that occur rarely (estimated probability 1%) in wetlands, but occur almost always (estimated probability 99%) in non-wetlands under natural conditions.

Determination of Hydric Soils

Soil survey information was reviewed for the current site condition. Field samples were evaluated using the Munsell soil color chart (2009 Edition), hand texturing, and assessment of soil features (e.g. oxidized root channels, evidence of hardpan, Mn and Fe concretions). Information regarding local soil and series descriptions is provided in **Appendix B.**

Determination of Wetland Hydrology

Wetland hydrology was determined to be present if a site supported one or more of the following characteristics:

- Landscape position and surface topography (e.g. position of the site relative to an up-slope water source, location within a distinct wetland drainage pattern, and concave surface topography),
- Inundation or saturation for a long duration either inferred based on field indicators or observed during repeated site visits, and
- Residual evidence of ponding or flooding resulting in field indicators such as scour marks, sediment deposits, algal matting, surface soil cracks and drift lines.

The presence of water or saturated soil for approximately 12% of the growing season typically creates anaerobic conditions in the soil, and these conditions affect the types of plants that can grow and the types of soils that develop (Wetland Training Institute 1995).

Determination of Ordinary High Water Mark

The lateral extent of non-tidal water bodies (e.g. intermittent and ephemeral streams) were based on the OHWM, which is "the line on the shore established by the fluctuations of water" (Corps 2005). The OHWM was determined based on physical characteristics of the area, including scour, multiple observed flow events (from current and historical aerial photos), shelving, and changes in the character of soil, presence of mature vegetation, deposition, and topography. Due to the wide extent of some

floodplains, adjacent riparian areas characterized by hydric soils, hydrophytic vegetation, and hydrology may be included within the OHWM of a non-tidal water body (Curtis, et. al. 2011).

OHWM Transects:

Representative OHWM widths measured in the field are shown as transect lines and measured in feet as required by the Corps *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (2016)*. These transect lines are used to ensure that the other waters of the United States identified within the Project site are mapped and calculated at the appropriate average width for each channel segment based on the Corps definition of OHWM as defined in the Arid West OHWM Field Guide and the *Ordinary High Water Mark Identification RGL 05-05 (2005)* (RGL 05-05). When the average width of a feature changes, this change is shown on the delineation map as a feature transition and a new average channel width is determined. At each transect line Gallaway uses multiple observed physical indicators in determining the OHWM. The lateral extents of the transect lines identify the location of the OHWM where benches, drift, exposed root hairs, changes in substrate/particle size, and, if appropriate, changes in vegetation were observed. If any other physical indicators as described in the Arid West OHWM Field Guide or RGL 05-05 are observed, these indicators are also utilized to identify the location of the OHWM.

Jurisdictional Boundary Determination and Acreage Calculation

The wetland-upland boundary was determined based on the presence or inference of positive indicators of all mandatory criteria. Soil samples were taken within wetland and upland areas. Additionally, seventeen (17) data points were taken across the Project site in areas where mound-swale topography occurs on steep slopes. The data taken at these points demonstrated a lack of wetland indicators within the swale portions of these areas and; therefore, these areas were not considered wetlands. The site was traversed on foot to identify wetland features and boundaries. The spatial data obtained during the preparation of this wetland delineation was collected using a Trimble Geo Explorer 6000 Series GPS Receiver. No readings were taken with fewer than 5 satellites. Point data locations were recorded for at least 25 seconds at a rate of 1 position per second. Area and line data were recorded at a rate of 1 position per second while walking at a slow pace. All GPS data were differentially corrected for maximum accuracy. In some cases, when visual errors and degrees of precision are identified due to environmental factors negatively influencing the precision of the GPS instrument (i.e. dense tree cover, steep topography, and other factors affecting satellite connection) mapping procedures utilized available topographic and aerial imagery datasets in order to improve accuracy in feature alignment and location.

Non-Jurisdictional Boundary Determination and Acreage Calculation

Areas were determined to be potentially non-jurisdictional if they did not meet the wetland test parameters or were consistent with the description of non-jurisdictional features as presented in the *Corps Jurisdictional Determination Form Instructional Guidebook* (2007). No potentially non-jurisdictional features were identified within the Project site. However, a number of test pits (TP) were sampled in areas that appeared to be swale-like features (**Exhibit A**), but were determined to not meet the wetland test parameters based on the data collected. Therefore, these areas were not identified as potential wetlands or potential non-jurisdictional features. Only features wherein the field data meet the criteria to be determined a WOTUS are mapped.

Determination of Wetland Boundaries During a Drought

In California, the winter of 2014/2015 was a drought year. Further, California has experienced an extended drought which has lasted four consecutive years (NOAA 2015). As such, The Corps issued a Public Notice on February 5, 2014 providing guidance for delineating wetlands in drought conditions (Corps 2014). In the Public Notice, the Corps direct delineators to use the guidelines detailed in the Arid West Manual (Corps 2008b) under Section 5: Difficult Wetland Situations in the Arid West. When determining wetland boundaries on the site, Gallaway Enterprises used these guidelines in areas where wetland vegetation or wetland hydrology was lacking but where the landscape position was likely to concentrate water. Gallaway Enterprises mapped these areas as wetlands if hydric soil indicators were detected (unless the soils were considered problematic) and at least one other hydric indicator was present (i.e. wetland hydrology or hydrophytic vegetation).

Results

Table 1 lists the identified pre-jurisdictional features within the Project boundary including area calculations. A complete Draft Wetland Delineation map, utilizing a 1" to 200' scale, is included as **Attachment A.**

Table 1 – Summary of Results from the Delineation of Waters of the United States for The Valley's Edge Project, Butte County, CA.

Feature Type	Length (ft)	Area (sq ft)	Acres
Other Waters	39,660.0	483,890.1	11.109
Vernal Pool	N/A	41,034.5	0.942
Vernal Swale	N/A	70,473.4	1.618
Seasonal Wetland	N/A	8,148.9	0.187
Wet Meadow	N/A	25,676.9	0.589
Seasonal Swale	N/A	11.2	0.000
Wetland Features Totals=	N/A	145,345.0	3.337
Other Waters of the U.S. and			
Wetland Features Totals=	39,660.0	629,235.1	14.445

Waters of the United States: Other Waters

There are twenty (20) features that qualify as "other waters" within the site boundary. Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, ephemeral and intermittent drainages, ponds, and other surface water features, that exhibit an OHWM, but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4). The boundaries of other waters were delineated based on the observed OHWM, and topographic studies. The delineation of the OHWM was conducted using indications of physical characteristics such as natural lines impressed on the bank, shelving, changes in the character of the soil, the destruction of terrestrial vegetation, debris lines and other appropriate means. We applied the above definition when delineating all other waters. Other waters were then further classified into two categories: 1) relatively permanent waters or 2) non-relatively permanent waters.

RPWs drain into the Butte Creek diversion channel just west of the Project and ultimately enter the Sacramento River.

Non-relatively Permanent Waters of the United States

An NRPW is defined as a tributary that typically flows for periods less than 3 months. NRPWs are jurisdictional when they have a documented significant nexus to TNWs. There are fifteen (15) other waters in the Project site that flow for periods of less than 3 months. Three (3) of the NRPWs (OW02, OW04, OW12) within the site flow into one of the two RPWs. Along the western Project boundary, OW06 and OW07 flow southwest and west respectively, where they exit the Project boundary via culverts 01 and 03 (C01, C03). Five (5) of the NRPWs (OW08-11, 17) are part of an unnamed ephemeral drainage that originates in the center of the site, flows west, and exits the west side of the Project boundary through C02. Other Waters 16 originates north of Comanche Creek and flows southwest where it converges with OW19 at the southern Project boundary and enters a culvert (C06). Lastly, OW01 flows from the site into a culvert where exits the northwestern Project boundary and enters the City of Chico's storm water system.

Waters of the United States: Wetlands

There are a total of ninety five (95) wetland features on the Project site. These include seasonal wetlands, vernal pools, vernal swales, and wet meadows. There are 3.337 acres of wetlands on the Project site. Although mima mound topography covers most of the site, thin soils and steep slopes prevent wetlands from forming. The majority of wetland features on the site occurred in either low-lying areas associated with the drainages or as a result of the construction of the Potter Road bike path. The relatively flat topography along the drainage bottoms, where the RPWs and NRPWs are found, allows water to pond long enough to support vegetation. Potter Road created an impediment within the vernal complex along the western Project boundary preventing water from sheet flowing off the site and created conditions capable of supporting vernal pools. There are also a number of wetland features on the Project site that have been formed as a result of man-made structures such as roads and cattle trails or man-made excavated pits.

Seventeen (17) upland data points (DP) were taken to demonstrate the lack of wetlands in areas that have mound-swale topography when viewed on aerial photographs. Data points 01-17 demonstrate the lack of hydrophytic vegetation and hydric soils. Data sheets can be found in **Appendix A.**

Soils

Thirteen (13) soil map units occur within the study area according to a query of the National Cooperative Soil Survey database. Soils present on the site were relatively dark in color with red hues. Soil textures were primarily clay loams with gravel and cobble present. The vast majority of the soil across the Project site was shallow, with hardpans observed at 0-4 inches deep. Often, throughout the Project site areas of exposed lava bedrock was observed. A copy of the soil survey map and a description of mapped soil units for the Project site are included as **Appendix B**. The 13 identified map units are listed below in **Table 2**. Based on Gallaway's review, 9 of the 13 soil map units contain hydric soil components; however, the majority of these soil map units have only minor hydric components. The exceptions are the Xerorthents, Tailings and 0 to 50 percent slopes, Wafap-Hamslough, 0 to 2 percent slopes, and Clearhayes-Hamslough, 0 to 2 percent slopes, soil map units, which have larger percentages of hydric soil components. These 3 hydric soils occur in only a few small locations within the Project site.

Table 2. Soil Map Units, NRCS hydric soil designation, and approximate totals for the Valley's Edge Project, Butte County, CA.

Map Unit Symbol	Map Unit Name	% Hydric Component in Map Unit	Landform of Hydric Component	% Map Unit in Survey Area
118	Xerorthents, Tailings and 0 to 50 percent slopes	98	Floodplains and terraces	0.1%
300	Redsluff gravelly loam, 0 to 2 percent slopes	3	Fan terraces	1.0%
301	Wafap-Hamslough, 0 to 2 percent slopes	18	Stream terraces	0.1%
302	Redtough-Redswale, 0 to 2 percent slopes	8	Fan terraces	0.4%
614	Doemill-Jokerst, 0 to 3 percent slopes	2	Ridges	4.4%
615	Doemill-Jokerst, 3 to 8 percent slopes	1	Ridges	55.0%
616	Jokerst-Doemill-Typic Haploxeralfs, 8 to 15 percent slopes	N/A	N/A	27.0%
617	Jokerst-Doemill-Typic Haploxeralfs, 15 to 30 percent slopes	N/A	N/A	6.0%
621	Doemill-Jokerst-Ultic Haploxeralfs, thermic complex, 8 to 15 percent slopes	N/A	N/A	0.1%
622	Xerothents, shallow-Typic Haploxeralfs-Rock outcrop, cliffs complex, 15 to 30 percent slopes	2	Canyons	0.2%
623	Xerothents, shallow-Typic Haploxeralfs-Rock outcrop, cliffs complex, 30 to 50 percent slopes	1	Canyons	0.1%
627	Ultic Haploxeralfs-Rockstripe-Rock outcrop, cliffs, 50 to 70 percent slopes	N/A	N/A	1.3%
675	Clearhayes-Hamslough, 0 to 2 percent slopes	18	Strath terraces	4.3%

Vegetation

Vegetation within the vernal pools and swales was mainly comprised of perennial rye grass (Festuca perennis), (FAC), and seaside barley (Hordeum marinum gussoneanum), (FAC). Annual hair grass (Deschampsia danthonioides), (FACW), goldfields (Lasthenia fremontii), (OBL), and Loosestrife (Lythrum spp.), (OBL) were observed within many of the vernal pools, but rarely as a dominant member of the

vegetation sample plot. Popcorn flower (*Plagiobothrys stipitatus*), (FACW), Coyote thistle (*Eryngium castrense*), (OBL), and Dwarf woollyheads (*Psilocarphus brevissimus*), (FACW) were observed in vernal pools with longer ponding durations. The upland annual grassland areas were typified by soft chess (*Bromus hordeaceus*), (FACU), medusa head grass (*Elymus caput-medusae*), (NL), and rat-tail six-weeks grass (*Festuca myuros*), (FACU). The upland areas along the riparian corridors have an overstory of blue oak (*Quercus* douglasii), (NL), foothill pine (*Pinus sabiniana*), (NL), and to a lesser degree interior live oak (*Quercus wislizeni*), (NL).

Hydrology

Precipitation is the main hydrological input for wetlands and NRPWs that are found within the Project site. Nearly all precipitation that falls within the Project site flows via NRPWs, swales, or sheet flow into one of the two RPWs within the Project. All of the wetlands within the site are hydrologically connected to adjacent NRPWs either via surface sheet flow or subsurface flows. Comanche Creek enters the east side of the site, flows southwest, and exits the south side of the Project site where it eventually enters the Sacramento River (TNW) via Angel Slough. The remaining two RPWs, are unnamed intermittent drainages which flow east to west across the site and exit the site on the western boundary. One of the unnamed drainages enters the site on the eastern boundary, and the second unnamed drainage originates in the center of the Project site. These two RPWs drain into the Butte Creek diversion channel just west of the Project boundary. The diversion channel flows south of the Project site where it converges with Butte Creek several miles south and ultimately flows into the Sacramento River.

Photo Points

Photo points were established on May 9, 2016 by Gallaway staff to document the physical characteristics of the wetlands and other water features observed on the Project site (Figure 3). Photo points taken of the other water features were taken primarily at OHWM transect locations.

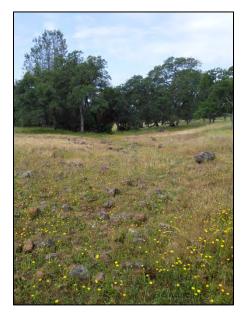
Site Photos Taken May 9, 2016



P01 – OW 11 looking northeast



P01 – OW 11 looking southwest



P02 – OW 08 looking southwest



P02 – OW 08 looking northeast



P03 – OW 04 looking east



P03 – OW 04 looking southwest



P04 – OW 03 looking east



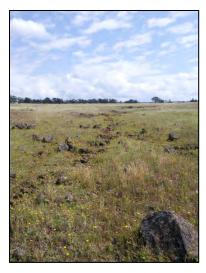
P04 – OW 03 looking west



P05 – OW 05 looking east



P05 – OW 05 looking northwest



P06 – OW 01 looking northeast



P06 – OW 01 looking southwest



P07 – WF 25 looking northeast



P08 – WF 31 looking northwest



P09 – OW 05 looking southwest



P09 – OW 05 looking northeast



P10 – OW 16 looking east



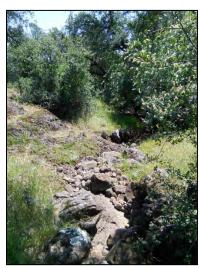
P10 – OW 16 looking west



P11 – OW 15 looking east



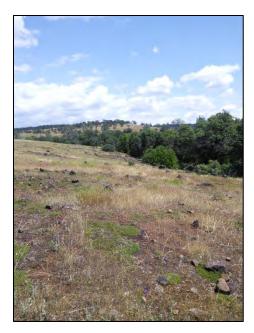
P12 - OW 12 looking north



P12 – OW 12 looking south



P13 – OW 15 looking southeast



P14 – WF 77 looking southwest



P15 – OW 17 looking northwest



P16 – Example of rock outcroppings present throughout the site looking east



P17 – WF 72 looking southeast

Glossary

Abutting: When referring to wetlands that are adjacent to a tributary, abutting defines those wetlands that are not separated from the tributary by an upland feature, such as a berm or dike.

Adjacent: Adjacent as used in "Adjacent to traditional navigable water," is defined in Corps and EPA regulations as "bordering, contiguous, or neighboring." Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands. A wetland "Abuts" a tributary if it is not separated from the tributary by uplands, a berm, dike, or similar feature.

While all wetlands that meet the agencies' definitions are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard. (CWA Jurisdiction Following Rapanos v US and Carabell v US 12-02-08).

The regulations define "adjacent" as follows: "[t]he term adjacent means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands." Under this definition, a wetland does not need to meet all criteria to be considered adjacent. The agencies consider wetlands to be bordering, contiguous, or neighboring, and therefore "adjacent" if at least one of following three criteria is satisfied:

- (1) There is an unbroken surface or shallow sub-surface hydrologic connection between the wetland and jurisdictional waters; or
- (2) The wetlands are physically separated from jurisdictional waters by "manmade dikes or barriers, natural river berms, beach dunes, and the like;" or,
- (3) Where a wetland's physical proximity to a jurisdictional water is reasonably close, that wetland is "neighboring" and thus adjacent. For example, wetlands located within the riparian area or floodplain of a jurisdictional water will generally be considered neighboring, and thus adjacent. One test for whether a wetland is sufficiently proximate to be considered "neighboring" is whether there is a demonstrable ecological interconnection between the wetland and the jurisdictional waterbody. For example, if resident aquatic species (e.g., amphibians, reptiles, fish, mammals, or waterfowl) rely on both the wetland and the jurisdictional waterbody for all or part of their life cycles (e.g., nesting, rearing, feeding, etc.), that may demonstrate that the wetland is neighboring and thus adjacent. The agencies recognize that as the distance between the wetland and jurisdictional water increases, the potential ecological interconnection between the waters is likely to decrease.

The agencies will also continue to assert jurisdiction over wetlands "adjacent" to traditional navigable waters as defined in the agencies' regulations. Under EPA and Corps regulations and as used in this guidance, "adjacent" means "bordering, contiguous, or neighboring." Finding a continuous surface connection is not required to establish adjacency under this definition. The Rapanos decision does not affect the scope of jurisdiction over wetlands that are adjacent to traditional navigable waters. The agencies will assert jurisdiction over those adjacent wetlands that have a continuous surface connection with a relatively permanent, non-navigable tributary, without the legal obligation to make a significant nexus finding.

Atypical situation (significantly disturbed): In an atypical (significantly disturbed) situation, recent human activities or natural events have created conditions where positive indicators for hydrophytic vegetation, hydric soil, or wetland hydrology are not present or observable.

Bar. An elongated landform generated by waves and currents, usually running parallel to the shore, composed predominantly of unconsolidated sand, gravel, stones, cobbles, or rubble and with water on two sides.

Beach. A sloping landform on the shore of larger water bodies, generated by waves and currents and extending from the water to a distinct break in landform or substrate type (e .g. a fore dune, cliff, or bank).

Boulder. Rock fragments larger than 60 .4 cm (24 inches) in diameter.

Channel. "An open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water" (Langbein and Iseri 1960:5).

Channel bank. The sloping land bordering a channel. The bank has steeper slope than the bottom of the channel and is usually steeper than the land surrounding the channel.

Cobbles. Rock fragments 7.6 cm (3 inches) to 25 .4 cm (10 inches) in diameter.

Debris flow. A moving mass of rock fragments, soil, and mud where more than 50% of the particles are larger than sand-sized.

Desert pavement. Tightly interlocking gravel at the surface formed after years of surface exposure in the absence of active streamflow over the surface.

Desert varnish. A thin, dark, shiny film, composed of iron oxide with traces of manganese oxide and silica, formed on the surface of pebbles, boulders, and rock outcrops in desert regions after long exposure.

Divide. High ground that forms the boundary of a watershed.

Drift. Organic debris oriented to flow direction(s) (larger than small twigs).

Effective discharge. Discharge that is capable of carrying a large proportion of sediment over time.

Emergent hydrophytes. Erect, rooted, herbaceous angiosperms that may be temporarily to permanently flooded at the base but do not tolerate prolonged inundation of the entire plant; e.g., bulrushes (*Scirpus spp.*), salt marsh cord grass.

Emergent mosses. Mosses occurring in wetlands, but generally not covered by water.

Ephemeral stream. An ephemeral stream has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Eutrophic lake. A lake that has a high concentration of plant nutrients such as nitrogen and phosphorus.

Facultative wetland (FACW). Wetland indicator category; species usually occurs in wetlands (estimated probability 67–99%) but occasionally found in non-wetlands.

Flat. A level landform composed of unconsolidated sediments usually mud or sand. Flats may be irregularly shaped or elongate and continuous with the shore, whereas bars are generally elongate, parallel to the shore, and separated from the shore by water.

Floating plant. A non-anchored plant that floats freely in the water or on the surface; e.g., water hyacinth (*Eichhornia crassipes*) or common duckweed (*Lemna minor*).

Floating-leaved plant. A rooted, herbaceous hydrophyte with some leaves floating on the water surface; e.g., white water lily (*Nymphaea odorata*), floating-leaved pondweed (*Potamogeton natans*). Plants such as yellow water lily (*Nuphar luteum*) which sometimes has leaves raised above the surface are considered floating leaved plants or emergents, depending on their growth habit at a particular site.

Freshwater Emergent Wetland. Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes and are flooded frequently enough that the roots of the plants flourish in an anaerobic environment. They are most common on gently rolling topography yet also occur in depressions at the edges of rivers and lakes. Supportive soils tend to contain high amounts of silt and clay with coarser sediments and organic matter intermixed. Characteristic plant species include cattails (Typha sp.) and rushes (Scirpus sp.).

Gravel. A mixture composed primarily of rock fragments 2mm (0 .08 inch) to 7.6 cm (3 inches) in diameter. Usually contains much sand.

Growing season The frost-free period of the year (see U.S. Department of Interior, National Atlas 1970:110-111 for generalized regional delineation).

Herbaceous. With the characteristics of an herb; a plant with no persistent woody stem above ground.

Hydric soil. Soil is hydric that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-depleted) conditions in its upper part (i.e., within the shallow rooting zone of herbaceous plants).

Hydrophyte, **hydrophytic**. Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Hyperconcentrated flow. Suspension flow with large suspended sediment concentrations (i.e., greater than 1–3%).

Intermittent stream. An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Jurisdictional Wetland. Sites that meet the definition of wetland provided below and that fall under Corps regulations pursuant to Section 404 of the CWA are considered jurisdictional wetlands.

Lacustrine. The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage; and (3) total area exceeds 8 ha (20 acres). Similar wetland and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 2 m (6.6 feet) at low water. Lacustrine waters may be tidal or nontidal, but ocean-derived salinity is always less than 0.5 parts per thousand.

Litter. Organic debris oriented to flow direction(s) (small twigs and leaves).

Macrophytic algae. Algal plants large enough either as individuals or communities to be readily visible without the aid of optical magnification.

Man-induced wetlands. A man-induced wetland is an area that has developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities.

Mesophyte, mesophytic. Any plant growing where moisture and aeration conditions lie between extremes. (Plants typically found in habitats with average moisture conditions, not usually dry or wet.)

Non-persistent emergents. Emergent hydrophytes whose leaves and stems break down at the end of the growing season so that most above-ground portions of the plants are easily transported by currents, waves, or ice. The breakdown may result from normal decay or the physical force of strong waves or ice. At certain seasons of the year there are no visible traces of the plants above the surface of the water; e.g., wild rice (*Zizania aquatica*), arrow arum (*Peltandra virginica*).

Non-Relatively Permanent Water: A non-relatively permanent water (NRPW) is defined as a tributary that is not a TNW and that typically flows for periods for less than 3 months. NRPWs are jurisdictional when the have a documented significant nexus to TNWs. All NRPWs must also contain appropriate morphology of bed, bank and scour and be clearly connected to a TNW.

Normal circumstances. This term refers to the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed.

Obligate hydrophytes. Species that are found only in wetlands e.g., cattail (*Typha latifolia*) as opposed to ubiquitous species that grow either in wetland or on upland-e .g., red maple (*Acer rubrum*).

Obligate wetland (OBL). Wetland indicator category; species occurs almost always (estimated probability 99%) under natural conditions in wetlands.

Other Waters of the United States. Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

Palustrine the Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 m (6.6 feet) at low water; and (4) salinity due to ocean-derived salts is less than 0.5 parts per thousand.

Perennial stream. A perennial stream has flowing water year-round during atypical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Persistent emergent. Emergent hydrophytes that normally remain standing at least until the beginning of the next growing season; e.g. ., cattails (*Typha spp.*) or bulrushes (*Scirpus spp.*).

Photic zone. The upper water layer down to the depth of effective light penetration where photosynthesis balances respiration. This level (the compensation level) usually occurs at the depth of 1% light penetration and forms the lower boundary of the zone of net metabolic production.

Pioneer species. A species that colonizes a previously uncolonized area.

Ponded. Ponding is a condition in which free water covers the soil surface (e.g., in a closed depression) and is removed only by percolation, evaporation, or transpiration.

Problem area. Problem areas are those where one or more wetland parameters may be lacking because of normal seasonal or annual variations in environmental conditions that result from causes other than human activities or catastrophic natural events.

Rating curve. A curve that illustrates the relationship between depth (stage) and the amount of flow (discharge) in a channel.

Reach. A segment of a stream channel.

Relatively Permanent Waters of the U.S. Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)

Ruderals. Disturbance-adapted herbaceous plant.

Scour. Soil and debris movement.

Sheetflood. Sheet of unconfined floodwater moving down a slope; a relatively low-frequency, high-magnitude event.

Sheetflow. Overland flow occurring in a continuous sheet; a relatively high-frequency, low-magnitude event.

Shift-adjusted rating curve. A curve that reflects changes (shifts) in the rating for a gage. Ratings may change due to erosion or deposition within the streambed or growth of riparian vegetation.

Shrub. A woody plant which at maturity is usually less than 6 m(20 feet) tall and generally exhibits several erect, spreading, or prostrate stems and has a bushy appearance; e.g., speckled alder (*Alnus rugosa*) or buttonbush (*Cephalanthus occidentalis*).

Stream power. The rate of doing work, or a measure of the energy available for moving rock, sediment, or woody or other debris in a stream channel, as determined by discharge, water surface slope, and the specific weight of water.

Succession. Changes in the composition or structure of an ecological community.

Stone. Rock fragments larger than 25 .4 cm (10 inches) but less than 60 .4 cm (24 inches).

Submergent plant. Avascular or nonvascular hydrophyte, either rooted or non-rooted, which lies entirely beneath the water surface, except for flowering parts in some species; e.g., wild celery (*Vallisneria americana*) or the stoneworts (*Chara spp.*).

Traditional Navigable Waters (TNWs). "[a]II waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide." These waters are referred to in this guidance as traditional navigable waters. The traditional navigable waters include all of the "navigable waters of the United States," as defined in 33 C.F.R. Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact (for example, the Great Salt Lake, UT, and Lake Minnetonka, MN). Thus, the traditional navigable waters include, but are not limited to, the "navigable waters of the United States" within the meaning of Section 10 of the Rivers and Harbors Act of 1899 (also known as "Section 10 waters").

Transmission loss. Loss of discharge due to infiltration of flow into the channel bed and banks.

Tree. A woody plant which at maturity is usually 6 m (20 feet) or more in height and generally has a single trunk, unbranched for 1 m or more above the ground, and a more or less definite crown; e.g., red maple (*Acer rubrum*), northern white cedar (*Thuja occidentalis*).

Wash. Broad gravelly dry bed of an intermittent stream.

Water table. The upper surface of a zone of saturation. No water table exists where that surface is formed by an impermeable body (Langbein and Iseri 1960:21).

Waters of the United States. This is the encompassing term for areas under federal jurisdiction pursuant to Section 404 of the CWA. Waters of the United States are divided into "wetlands" and "other waters of the United States".

Watershed (drainage basin). An area of land that drains to a single outlet and is separated from other watersheds by a divide.

Wetland. Wetlands are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 [b], 40 CFR 230.3). To be considered under federal jurisdiction, a wetland must support positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

Woody plant. A seed plant (gymnosperm or angiosperm) that develops persistent, hard, fibrous tissues, basically xylem; e.g., trees and shrubs.

Xeric. Relating or adapted to an extremely dry habitat

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Appendix A: Wetland Delineation Data Sheets

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1-	-19-15	
Applicant/Owner:B. Brouhard					State: CA Sampling Point: DP01			P01	
Investigator(s):D. Machek, E. Gregg			Section,	Гownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): sloped	d terrace		Local reli	ef (concave,	convex, none):none	:	Slop	oe (%):4	
Subregion (LRR).C - Mediterranean C		Lat:39.7			Long:-121.77213			n:WGS	
Soil Map Unit Name: Doemill-Jokerst					_	ssification			
Are climatic / hydrologic conditions on the			ar? Vas (• No (
					"Normal Circumstan		<i>'</i>	No	
			disturbed			•		No	
,			oblematic?		eeded, explain any a		,		
SUMMARY OF FINDINGS - Att	ach site map sh	nowing	sampli	ng point l	ocations, transe	ects, imp	oortant fea	ıtures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		le	the Sampled	1 Δτορ				
Wetland Hydrology Present?	Yes No			thin a Wetla		\bigcirc	No 💿		
Remarks:				illiii a vvetia	100		110		
VEGETATION									
		bsolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species	Status_	Number of Domina				
1					That Are OBL, FA	CW, or FA	.C: 0		(A)
2				-	Total Number of D				
3					Species Across A	l Strata:	2		(B)
4		2/		-	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	.C: ().() %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	/ by:	-
3.					OBL species		x 1 =	0	
4					FACW species	10	x 2 =	20	
5					FAC species	5	x 3 =	15	
Harb Stratum	Total Cover:	%			FACU species	30	x 4 =	120	
Herb Stratum		30	Yes	FACU	UPL species	30	x 5 =	150	
1.Dichelostemma capitatum 2.Blennosperma nanum		10	No	FACW	Column Totals:	75	(A)	305	(B)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	ndex = B/	'A =	4.07	
4. Agoseris heterophylla		5	No	Not Listed Not Listed	Hydrophytic Veg	etation In	dicators:		
5.Lepidium nitidum		5	No	FAC	Dominance T				
6.Layia fremontii		5	No	Not Listed	Prevalence In	dex is ≤3.0	D ¹		
7.					Morphologica	l Adaptatio	ons ¹ (Provide	supportir	ng
8.					1		n a separate		
	Total Cover:	75 %			Problematic H	lydrophytic	c Vegetation'	(Explain)
Woody Vine Stratum		70 70			11. Parton of boot		dd land land	da a la accom	
1				_	¹ Indicators of hyd be present.	ric soil and	d wetland hyd	rology r	must
2				-	_				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum25	5 % Cover o	of Biotic C	Crust	%	Present?	Yes 🔘	No 💿		
Remarks:									

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SOIL Sampling Point: $\underline{DP01}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loam	1
	_							
	_							-
1			and Matrice O			1010		Lacation: DL Doro Lining M Matrix
Type: C=0	Concentration, D=Dep	oletion, RM=Redu	iced Matrix. C	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicat	ole to all I RRs. un	less otherwise	e noted)			Indicators for	Problematic Hydric Soils: 3
Histos			Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,				k (A10) (LRR B)
	Histic (A3)		Loamy Mud	cky Minera	l (F1)		Reduced	Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted M				Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)	(0.4.4)	Redox Dar		. ,			
. — .	ed Below Dark Surface	ce (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)	L	Redox Dep Vernal Poo	,	F8)			drology must be present.
	Gleyed Matrix (S4)	L	vernar r oo	13 (1 3)			unless dis	tributed or problematic
	Layer (if present):							
Type:du								
	nches):6						Hydric Soil Pr	esent? Yes No 💿
	Extremely rocky su	bstrate, lava ha	rdpan at or n	ear 6" th	roughout	most of	_	
	, ,	,	1		C		C	
	207							
HYDROL								
	ydrology Indicators:		1 1141 4				Sacanda	ry Indicators (2 or more required)
	dicators (minimum of o	one required; che						ry Indicators (2 or more required) er Marks (B1) (Riverine)
l ==	e Water (A1)		Salt Crust	` '				, , ,
l 🖳 🧻	Vater Table (A2)		Biotic Cru		(5.45)			iment Deposits (B2) (Riverine)
l 🖳	tion (A3)		Aquatic In					Deposits (B3) (Riverine)
=	Marks (B1) (Nonriver		Hydrogen		` '		= =	nage Patterns (B10)
	ent Deposits (B2) (No		==		res along	-		Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonrive	erine)			ed Iron (C4	,		rfish Burrows (C8)
=	e Soil Cracks (B6)	Imagan, (D7)			on in Plow	rea Solis (· <u>—</u>	ration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial	Imagery (B7)	Thin Muck	`	,			low Aquitard (D3)
Field Obse	Stained Leaves (B9)		Other (Ex	Diain in Re	emarks)		FAC	-Neutral Test (D5)
		∕es	Donth (in	choc):				
		_						
Water Tabl		res ○ No ●						
Saturation (includes c	Present? \ apillary fringe)	∕es	Depth (in	icnes):		Wetl	and Hydrology P	resent? Yes O No •
	ecorded Data (stream	n gauge, monitorii	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

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WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1 -	19-15
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:D	P02
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	nge:S 32, T 22N, I	R 2E	_	
Landform (hillslope, terrace, etc.): sloped terra	.ce		Local reli	ef (concave,	convex, none):conv	ex	Slop	e (%):5
Subregion (LRR):C - Mediterranean Californ		Lat:39.7			Long:-121.76909			n:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8					_	ssification		
Are climatic / hydrologic conditions on the site ty			ar? Ves (• No (
					"Normal Circumstand		,	No 🔘
			disturbed					INO (
Are Vegetation Soil or Hydrology	nat nat	turally pro	oblematic?	(If ne	eeded, explain any a	nswers in I	Remarks.)	
SUMMARY OF FINDINGS - Attach s	site map sh	nowing	sampli	ng point l	ocations, transe	ects, imp	oortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes	No	•						
Hydric Soil Present? Yes			Is	the Sampled	d Area			
Wetland Hydrology Present? Yes	No			thin a Wetla		\bigcirc	No 💿	
Remarks:								
VEGETATION								
T 0		bsolute		t Indicator	Dominance Test	workshee	t:	
Tree Stratum (Use scientific names.)	<u> 9</u>	<u> 6 Cover</u>	Species?	Status_	Number of Domina			(4)
1				_	That Are OBL, FA	CW, or FA	C: 0	(A)
2				-	Total Number of D		,	
3.					Species Across Al	l Strata:	4	(B)
4	Tatal Causan	0/		-	Percent of Domina			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0) % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove	r of:	Multiply	by:
3.					OBL species		x 1 =	0
4.					FACW species	5	x 2 =	10
5					FAC species		x 3 =	0
Harb Chrahina	Total Cover:	%			FACU species	55	x 4 =	220
Herb Stratum		20	V	D. 071	UPL species	20	x 5 =	100
1.Aira caryophyllea 2.Bromus hordeaceous		20	Yes	FACU	Column Totals:	80	(A)	330 (B)
3. Dichelostemma capitatum		15 20	Yes Yes	FACU FACU	Prevalence I	ndex = B/	A =	4.13
4.Blennosperma nanum		5	No	FACW	Hydrophytic Veg	etation Inc	dicators:	
5.Layia fremontii		5	No	Not Listed	Dominance T			
6.Festuca sp.		15	Yes	Not Listed	Prevalence In	dex is ≤3.0)1	
7.					Morphologica	l Adaptatio	ns ¹ (Provide s	supporting
8.				_			n a separate	
	Total Cover:	80 %		_	Problematic F	lydrophytic	Vegetation ¹	(Explain)
Woody Vine Stratum		00 %			1			
1					Indicators of hydbe be present.	ric soil and	d wetland hyd	Irology must
2					-			
	Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum20 %	% Cover of	of Biotic C	Crust	%	Present?	Yes 🔘	No 💿	
Remarks:					1			

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SOIL Sampling Point: $\underline{DP02}$

Profile De	scription: (Describe	to the depth nee	ded to docu	ment the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			T	5
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loam	
	_							
	_							
1								
'Type: C=	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydria Sail	Indicators: (Applicabl	o to all I BBs uni	occ othorwice	noted \			Indicators for	Problematic Hydric Soils: 3
Histos		e to all ERRS, ulli	Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)
	Histic (A3)		Loamy Mud	ky Minera	l (F1)		Reduced	Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted M	, ,			Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D Redox Dep		` '		3 Indicators of I	nydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	10)		wetland hy	drology must be present.
	Gleyed Matrix (S4)] voillair oo	10 (1 0)			unless dist	ributed or problematic
	e Layer (if present):							
Type:dı	ıripan							
Depth (i	inches):4						Hydric Soil Pro	esent? Yes No •
Remarks:	Extremely rocky sub	strate, lava har	dpan at or n	ear 4" th	roughout	most of	surrounding area	1.
HYDROL	OGY							
	lydrology Indicators:							
	dicators (minimum of o	ne required: chec	k all that ann	lv)			Secondar	y Indicators (2 or more required)
	e Water (A1)	rie regairea, eriec	Salt Crust	*				er Marks (B1) (Riverine)
	Vater Table (A2)	L	Biotic Cru	` '				ment Deposits (B2) (Riverine)
<u> </u>	ation (A3)	<u> </u>	Aquatic In		es (B13)			Deposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
	ent Deposits (B2) (Nor	· · · · =	Oxidized F		` '	Livina Ro	= =	Season Water Table (C2)
=	eposits (B3) (Nonriver	· =	Presence		_	-		fish Burrows (C8)
==	e Soil Cracks (B6)	· /	Recent Iro		`	,		ration Visible on Aerial Imagery (C9)
	ation Visible on Aerial I	magery (B7)	Thin Muck			`		ow Aquitard (D3)
=	-Stained Leaves (B9)		Other (Exp	olain in Re	marks)			-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? You	es O No 💿	Depth (in	ches):				
Water Tab	le Present? You	es O No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):				
	apillary fringe) Recorded Data (stream	gauga manitarin	a woll porial	nhotos nr	ovious ins		if available:	resent? Yes No •
Describe N	recorded Data (Stream	gauge, monitorin	g well, aerial	priotos, pr	evious iris	pections),	ii available.	
Remarks:								
iveillains.								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:DP03		
Investigator(s): D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	ed terrace		Local reli	ef (concave,	convex, none):none	;	Slop	pe (%):5	
Subregion (LRR):C - Mediterranean (California	Lat:39.7	714957		Long:-121.76756	55	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	· •		ear? Yes (No (
			disturbed		"Normal Circumstan		,	No (\circ
			oblematic?		eeded, explain any a			(
SUMMARY OF FINDINGS - At	· • —						,	aturos	otc
SUMMART OF FINDINGS - AL	lacii site iliap si	lowing	Sampin	ng point i	ocations, transe	ecis, iiii	portant lea		ell.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No			the Sample					
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 💿		
VEGETATION									
		Absolute		t Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)) <u>-9</u>	% Cover	Species?	Status_	Number of Domin			,	<i>(</i> •)
1				_	That Are OBL, FA	CW, or FA	C: 0	()	(A)
2. 3.					Total Number of D Species Across A		4	((B)
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0) % (A	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	/ by:	
3.					OBL species		x 1 =	0	
4.					FACW species	5	x 2 =	10	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	40	x 4 =	160	
1.Layia fremontii		20	Yes	NI	UPL species	35	x 5 =	175	<i>(</i> =)
2. Festuca sp.		10	Yes	Not Listed	Column Totals:	80	(A)	345	(B)
3. Dichelostemma capitatum		20	Yes	FACU	Prevalence	Index = B/	/A =	4.31	
4. Blennosperma nanum		5	No	FACW	Hydrophytic Veg	etation In	dicators:		
5. Dodecatheon clevelandii ssp. po	itulum -	5	No	Not Listed	Dominance T	est is >509	%		
6.Bromus hordeaceous		20	Yes	FACU	Prevalence Ir				
7.					Morphologica	l Adaptatio	ons ¹ (Provide on a separate	supportin	ıg
8.					- Problematic H			,	١
Mandy Vina Stratum	Total Cover:	80 %			1 Toblematic 1	туаторттуш	o vegetation	(Explain)	'
Woody Vine Stratum 1.				_	¹ Indicators of hyd be present.	ric soil and	d wetland hyd	drology m	nust
2					_				
	Total Cover:	%			Hydrophytic Vegetation				
	20 % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🗨	ı	
Remarks:								_	

SOIL Sampling Point: DP03

Profile De	scription: (Describe	to the depth nee	ded to docu	ment the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			T	5
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loam	
	_							
	_							
1								
'Type: C=	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydria Sail	Indicators: (Applicabl	o to all I BBs uni	occ othorwice	noted \			Indicators for	Problematic Hydric Soils: 3
Histos		e to all EKKS, ulli	Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)
	Histic (A3)		Loamy Mud	ky Minera	l (F1)		Reduced	Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted M	, ,			Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D Redox Dep		` '		3 Indicators of I	nydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	10)		wetland hy	drology must be present.
	Gleyed Matrix (S4)] voillair oo	.0 (. 0)			unless dist	ributed or problematic
	e Layer (if present):							
Type:dı	ıripan							
Depth (i	inches):4						Hydric Soil Pro	esent? Yes No •
Remarks:	Extremely rocky sub	strate, lava har	dpan at or n	ear 4" th	roughout	most of	surrounding area	1.
HYDROL	OGY							
	lydrology Indicators:							
	dicators (minimum of o	ne required: chec	k all that ann	lv)			Secondar	y Indicators (2 or more required)
	e Water (A1)	rie regairea, eriec	Salt Crust	*				er Marks (B1) (Riverine)
	Vater Table (A2)	L	Biotic Cru	` '				ment Deposits (B2) (Riverine)
<u> </u>	ation (A3)	<u> </u>	Aquatic In		es (B13)			Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
	ent Deposits (B2) (Nor	· · · · =	Oxidized F		` '	Livina Ro	= =	Season Water Table (C2)
=	eposits (B3) (Nonriver	· =	Presence		_	-		fish Burrows (C8)
==	e Soil Cracks (B6)	· /	Recent Iro		`	,		ration Visible on Aerial Imagery (C9)
	ation Visible on Aerial I	magery (B7)	Thin Muck			`		ow Aquitard (D3)
=	-Stained Leaves (B9)		Other (Exp	olain in Re	marks)			-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? You	es O No 💿	Depth (in	ches):				
Water Tab	le Present? You	es O No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):				
	apillary fringe) Recorded Data (stream	gauga manitarin	a woll porial	nhotos nr	ovious ins		if available:	resent? Yes No •
Describe N	recorded Data (Stream	gauge, monitorin	g well, aerial	priotos, pr	evious iris	pections),	ii available.	
Remarks:								
iveillains.								

Project/Site: The Valley's Edge		City/Co	unty:Butte		Sa	mpling Date: 1	-19-15
Applicant/Owner: B. Brouhard				State:CA	— Saı	- Impling Point:	DP04
Investigator(s):D. Machek, E. Gregg		Section	n, Township, Ra	nge:S 32, T 22N, R	2E	_	
Landform (hillslope, terrace, etc.): sloped terrace		Local r	elief (concave,	convex, none):none		Slo	pe (%):4
Subregion (LRR):C - Mediterranean California	Lat:39.7	712563		Long:-121.77343	7	 Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	opes			NWI clas	ssificatio	n:Upland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Ye	s (• No ((If no, explain	in Rema	arks.)	
	ignificantly			'Normal Circumstanc	es" prese	ent? Yes	No 🔘
	aturally pro			eeded, explain any an	swers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samp	ling point lo	ocations, transe	cts, im	portant fe	atures, etc.
Hydrophytic Vegetation Present? Yes No	o (
	o		Is the Sampled	l Area			
Wetland Hydrology Present? Yes No	0 (within a Wetlar		\bigcirc	No 💿	
Remarks:							
VEGETATION							
	Absolute	Domin	ant Indicator	Dominance Test v	vorkshe	et:	
			es? Status	Number of Domina			
1				That Are OBL, FAC	CW, or F	AC: 0	(A)
2				Total Number of Do	ominant		
3				Species Across All	Strata:	3	(B)
4				Percent of Domina			
Sapling/Shrub Stratum Total Cover	r: %			That Are OBL, FAC	CW, or F	AC: 0.	0 % (A/B)
1.				Prevalence Index	worksh	eet:	
2.				Total % Cover	of:	Multipl	y by:
3.				OBL species		x 1 =	0
4.				FACW species		x 2 =	0
5				FAC species		x 3 =	0
Total Cover Herb Stratum	: %			FACU species	30	x 4 =	120
1.Bromus hordeaceous	30	Yes	FACU	UPL species	60	x 5 =	300
2-Agoseris heterophylla	$\frac{30}{20}$	Yes	Not Listed	Column Totals:	90	(A)	420 (B)
3.Layia fremontii		No	NI	Prevalence Ir	ndex = E	3/A =	4.67
4. Dodecatheon clevelandii ssp. patulum		No	Not Listed	Hydrophytic Vege	tation Ir	ndicators:	
5. Festuca microstachys	20	Yes	Not Listed	Dominance Te	st is >50)%	
6.				Prevalence Inc	dex is ≤3	.01	
7.				Morphological			
8.				Problematic H		on a separate	,
Total Cover	90 %			- Thopiematic H	yuropriyi	ic vegetation	(Explain)
Woody Vine Stratum				¹ Indicators of hydri	c soil ar	nd wetland hy	drology must
1				be present.			
2Total Cover	. %			Hydrophytic			
	of Biotic C	Crust	%_	Vegetation Present?	Yes C	No •	
Remarks:							

SOIL Sampling Point: DP04

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features		1 - 2	Tand	D
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loan	<u> </u>
								-
								-
1							-	
'Type: C=0 	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all I RRs unl	ess otherwis	e noted)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Red					ck (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,			2 cm Mu	ck (A10) (LRR B)
Black H	Histic (A3)		Loamy Mu				Reduced	Vertic (F18)
	gen Sulfide (A4)		Loamy Gle	-	(F2)			ent Material (TF2)
	ed Layers (A5) (LRR C	<u> </u>	Depleted N		(FC)		Other (Ex	xplain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	\((\Lambda 11) \)	Redox Dar Depleted D		. ,			
. — .	Dark Surface (A12)	(A11)	Redox Dep		` '			hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	. 0)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)		J	` ,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:du	ripan							
Depth (ii	nches):4						Hydric Soil Pr	resent? Yes No •
Remarks: I	Extremely rocky sub	strate, lava har	dpan at or r	near 4" th	roughout	most of	surrounding are	ea.
HYDROLO	OGY							
Wetland H	ydrology Indicators:							
	licators (minimum of o	ne required; chec	k all that app	ly)			Seconda	ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crus	t (B11)			Wa	ter Marks (B1) (Riverine)
High W	/ater Table (A2)	F	Biotic Cru	` '			Sed	liment Deposits (B2) (Riverine)
<u> </u>	tion (A3)	Ī		vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	= '	Sulfide O			Drai	nage Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	res along	Living Ro	ots (C3) Dry-	Season Water Table (C2)
Drift De	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	1)	Cray	yfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Ire	on Reducti	on in Plow	ed Soils (C6) Satu	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial In	magery (B7)	Thin Mucl	k Surface (C7)		Sha	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es No 💿	Depth (ir	nches):				
Water Table	e Present? Ye	es No	Depth (ir	nches):				
Saturation I	Present? Yeapillary fringe)	es O No 💿	Depth (ir	nches):		Wetl	land Hydrology F	Present? Yes No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			100.111 100 0 110 0
Remarks:								

Project/Site: The Valley's Edge			City/Co	ounty:Butte		San	npling Date:	1-19-15	
Applicant/Owner:B. Brouhard					State: CA	San	npling Point:	DP05	
Investigator(s): D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 28, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): slope	ed terrace		Local	relief (concave,	convex, none):con	vex	SI	ope (%):5	.5
Subregion (LRR):C - Mediterranean	California	Lat:39.7	728250)	Long:-121.7653	75	 Dat	um:WGS	84
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cl	assification	:Upland		
Are climatic / hydrologic conditions on t	*	•	ar? Ye	es (• No (
		gnificantly			"Normal Circumstar		,) No	
		turally pro			eeded, explain any	·			
SUMMARY OF FINDINGS - A								atures	, etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•		Is the Sampled	I Area				
Wetland Hydrology Present?	Yes No			within a Wetla			No 💿		
VEGETATION									
Tree Stratum (Use scientific names. 1		Absolute % Cover		nant Indicator es? Status	Number of Domin That Are OBL, FA	nant Specie	S	0	(A)
3.					Total Number of Species Across A			5	(B)
4. Sapling/Shrub Stratum	Total Cover:	%			Percent of Domir That Are OBL, F			0.0 %	(A/B)
1.					Prevalence Inde	x workshe	et:		
2.					Total % Cov	er of:	Multip	oly by:	_
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	55	x 4 =	220	
1.Dichelostemma capitatum		30	Yes	FACU	UPL species	25	x 5 =	125	(D)
2. Aira caryophyllea		15	Yes	FACU	Column Totals:	80	(A)	345	(B)
3.Bromus hordeaceous		10	Yes	FACU	Prevalence	Index = B	'A =	4.31	
4. Festuca sp.		15	Yes	Not Listed	Hydrophytic Ve	getation In	dicators:		
5. Layia fremontii		10	Yes	NI	Dominance ⁻				
6.					Prevalence I				
7					Morphologica		ons¹ (Providen a separat		ng
8					- Problematic				1)
Woody Vine Stratum	Total Cover:	80 %				, ,		(=	-,
1					¹ Indicators of hydbe be present.	dric soil an	d wetland h	ydrology ı	must
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	20 % Cover		Crust _	%	Vegetation Present?	Yes 〇	No (•	
Remarks:					•				

SOIL Sampling Point: $\underline{DP05}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	2.5 YR 2.5/3	100					Gravelly clay loam	
	_							-
	_							
	-							
¹ Type: C=0	Concentration, D=Dep	letion RM=Redu	ıced Matrix C	S=Covere	d or Coate	d Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
Type. 0=\	Solicelitiation, B-Be,	Jones III III III III III III III III III I	icca iviatrix. O	0=007010	a or coate	a Garia Gi	idilis	Zooddon i Zar oro zining, manatiki
Hydric Soil	Indicators: (Applicat	le to all LRRs, un	less otherwis	e noted.)			Indicators for	Problematic Hydric Soils: ³
Histoso			Sandy Redo					k (A9) (LRR C)
Histic E	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muc	k (A10) (LRR B)
	Histic (A3)		Loamy Mu					Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted M				Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)		Redox Dar		. ,			
	ed Below Dark Surfac	ce (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	Ļ	Redox Dep	,	F8)			drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	IS (F9)				tributed or problematic
	Gleyed Matrix (S4)						1	
	Layer (if present):							
Type:du			-					
	nches):2						Hydric Soil Pr	
	-	rocky substrate	e, lava hardp	an at or n	iear surta	ce. Wate	r flows via shee	t flow in a westerly direction
C	lownslope.							
HYDROL	OGY							
Wetland H	ydrology Indicators:							
1	licators (minimum of o		ck all that app	lv)			Seconda	ry Indicators (2 or more required)
	e Water (A1)		Salt Crust					er Marks (B1) (Riverine)
l <u>=</u>	/ater Table (A2)		Biotic Cru	` '				ment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)			vertebrate	se (B13)			Deposits (B3) (Riverine)
l <u>—</u>	` '	rino)	=	Sulfide O				nage Patterns (B10)
l <u>=</u>	Marks (B1) (Nonriver				eres along	Livina Boo	= =	Season Water Table (C2)
=	ent Deposits (B2) (No		=		ed Iron (C4	-		, ,
l <u>=</u>	eposits (B3) (Nonrive	rine)	<u> </u>		on in Plow	,		fish Burrows (C8)
=	e Soil Cracks (B6)	Imagani (DZ)	_			rea sons (· <u>—</u>	ration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial	Imagery (B7)	_	Surface (,			low Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse		(aa (Danth (in	- de - e).				
		′es ○ No ●						
Water Table	e Present?	′es ○ No ●	Depth (ir	iches):				
Saturation		′es 🔵 No 💽	Depth (ir	iches):		Wetl	and Hydrology P	resent? Yes O No •
	apillary fringe) ecorded Data (stream	n gauge, monitori	ng well. aerial	photos, pr	evious insi			100 0 100
	2.2.2.2.2.2.4000000	J	, من المارين	,, pi		,,,		
Remarks:								
ixomaiks.								

Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	pling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:D	P06	
Investigator(s): D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 28, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): sloped	terrace		Local reli	ef (concave,	convex, none):none)	Slop	oe (%):5	.5
Subregion (LRR):C - Mediterranean Ca	lifornia	Lat:39.7	726571		Long:-121.76615	57	 Datur	n:WGS	84
Soil Map Unit Name: Doemill-Jokerst ,		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	*	•	ear? Yes (No (
Are Vegetation Soil or Hyd			disturbed		"Normal Circumstan		,	No (\circ
Are Vegetation Soil or Hyd			oblematic?		eeded, explain any a	·			
SUMMARY OF FINDINGS - Atta							,	aturos	oto
SOMMANT OF THIRDINGS - Atta	ich site map si	ilowing		ing point i	ocations, transi	zcis, iiiip	Jortant 1ea	itures,	eic.
Hydrophytic Vegetation Present?		•							
Hydric Soil Present?		•		the Sample					
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	O	No 🖲		
VEGETATION									
		Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species	Status_	Number of Domin				(4)
1. 2.			-		That Are OBL, FA	CVV, or FA	C: 0	((A)
3					Total Number of D Species Across A		3	((B)
4				_	Percent of Domin	ant Species	5		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.() % ((A/B)
1.					Prevalence Index	k workshe	et:		
2.					Total % Cove	r of:	Multiply	/ by:	<u>.</u>
3.					OBL species		x 1 =	0	
4.					FACW species	15	x 2 =	30	
5					FAC species		x 3 =	0	
Llorb Ctrotum	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1. Festuca sp.		25	Yes	Not Listed	UPL species	75	x 5 =	375	
2.Blennosperma nanum		15	No	FACW	Column Totals:	90	(A)	405	(B)
3.Bromus hordeaceous		20	Yes	UPL	Prevalence	Index = B/	A =	4.50	
4. Layia fremontii		10	No	NI	Hydrophytic Veg	etation Inc	dicators:		
5.Dodecatheon clevelandii ssp. pati	 ılum	20	Yes	Not Listed	Dominance T	est is >50%	6		
6.					Prevalence Ir	ndex is ≤3.0)1		
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supportin	ng
8.					- Problematic I		n a separate		`
	Total Cover:	90 %			- D Problematic i	тушторпушс	vegetation	(Explain))
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	l wetland hvo	drology n	nust
1. 2.					be present.	no con and	. Woulding Try	nology ii	naot
	Total Cover:	%			Hydrophytic			-	-
% Bare Ground in Herb Stratum 10			Crust	%	Vegetation Present?	Yes 〇	No 💿		
Remarks:									

SOIL Sampling Point: $\underline{DP06}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-2	2.5 YR 2.5/3						Gravelly clay loam	1
2-8	2.5 YR 3/3	100					Gravelly clay loam	1
	_	. — — —						
	_							
	_							
1								
'Type: C=0 	Concentration, D=Dep	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all I RRs u	nless otherwise	e noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to an Enns, u	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)	Ī	Stripped M	, ,				k (A10) (LRR B)
	Histic (A3)	Ī	Loamy Mu	cky Minera	al (F1)		Reduced	Vertic (F18)
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)			nt Material (TF2)
	ed Layers (A5) (LRR C	>)	Depleted M	` ,			Other (Ex	plain in Remarks)
	fluck (A9) (LRR D)	[Redox Dar		. ,			
	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	Ĺ	Redox Dep	,	F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Poo	is (F9)				tributed or problematic
	Layer (if present):							`
Type:du								
	nches):8		-				Hydric Soil Pr	esent? Yes No No
. ,	Steep south facing si	lone					Tryuno com Tr	
ixemans. L	steep south facing s.	юре						
HYDROL	OGY							
Wetland H	ydrology Indicators:							
Primary Inc	licators (minimum of o	ne required; che	eck all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	t (B11)			Wat	er Marks (B1) (Riverine)
High W	/ater Table (A2)		Biotic Cru	st (B12)			Sed	iment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic Ir	vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drai	nage Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	eres along	Living Ro	ots (C3) Dry-	Season Water Table (C2)
Drift De	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	!)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	on Reducti	ion in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Shal	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es 🔵 No 🤄	Depth (ir	nches):				
Water Table	e Present? Y	es O No 🤄	Depth (ir	nches):				
Saturation	•	es O No 🤄	Depth (ir	nches):		Wet	land Hydrology P	resent? Yes O No •
	apillary fringe) ecorded Data (stream	gauge monitor	ing well aerial	nhotos nr	evious ins		Iand Hydrology P	resent? Yes O No (•)
Poscibe K	Sosiaca Daia (Siledili	gaago, monitor	9 **********************************	Priotos, pi	O 11000 1115	, , , , , , , , , , , , , , , , , , ,	ii availabic.	
Remarks:								
ixemans.								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:D	P07	
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 28, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): sloped ter	race		Local reli	ef (concave,	convex, none):conv	/ex	Slop	oe (%):5	
Subregion (LRR):C - Mediterranean Califo		Lat:39.7			Long:-121.75792			n:WGS	84
Soil Map Unit Name: Doemill-Jokerst, 3 to					_	assification			
Are climatic / hydrologic conditions on the site	•	•	ear? Yes (• No (
Are Vegetation Soil or Hydrolo			disturbed		"Normal Circumstan		,	No	\circ
Are Vegetation Soil or Hydrolo			oblematic?		eeded, explain any a			140	
SUMMARY OF FINDINGS - Attach	·			•	, ,		,	itures.	etc.
				.5 po	ocanono, nano	,	30.14		
, , , ,	es No		lo i	tha Campla	d Aron				
1 -	es No			the Sampled thin a Wetla		\circ	No 💿		
Remarks:			VVII	illill a vvetia	iiu: ies		140 (3)		
VEGETATION		Absolute	Dominon	t Indicator	Dominance Test	workshoo	4.		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1.					That Are OBL, FA				(A)
2					Total Number of D	Oominant			
3				_	Species Across A		4		(B)
4				_	Percent of Domin	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 %	(A/B)
1.					Prevalence Index	k workshe	et:		
2.	 -			-	Total % Cove	er of:	Multiply	/ by:	_
3.					OBL species		x 1 =	0	
4.				-	FACW species	10	x 2 =	20	
5					FAC species	15	x 3 =	45	
	Total Cover:	%			FACU species	45	x 4 =	180	
Herb Stratum					UPL species	20	x 5 =	100	
1.Aira caryophyllea		15	Yes	FACU	Column Totals:	90	(A)	345	(B)
2.Dichelostemma capitatum		30	Yes	FACU	Prevalence	Index = B	'A =	3.83	
3.Blennosperma nanum		10	No	FACW	Hydrophytic Veg			3.03	
4.Sedella pumila 5.Festuca sp.		15 20	Yes Yes	- FAC Not Listed	Dominance T				
6.		20	168	- Not Listed	Prevalence Ir				
7.				-	Morphologica			supportir	ng
8.				-			n a separate	,	
	Total Cover:	90 %		-	Problematic I	Hydrophytic	c Vegetation ¹	(Explain)
Woody Vine Stratum		70 %			1				
1				-	Indicators of hydronic be present.	ric soil and	d wetland hyd	Irology n	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum10 %	% Cover	of Biotic C	Crust	%_	Vegetation Present?	Yes 〇	No 💿		
Remarks:	-								

SOIL Sampling Point: $\underline{DP07}$

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of ind	icators.)
Depth (inches)	Matrix	0/ 0-1		x Features		1002	Toytura	Domonto
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²		Remarks
0-2	2.5 YR 2.5/3						Gravelly clay loam	
				- ——				
1								
Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	o to all I DDs unl	ose othorwise	noted)			Indicators for Pro	blematic Hydric Soils: 3
Histoso		e to all Lixixs, ulli	Sandy Redo	-			1 cm Muck (A	
	Epipedon (A2)		Stripped M	, ,			2 cm Muck (A	, ,
	Histic (A3)		Loamy Mud	ky Minera	l (F1)		Reduced Ver	tic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)		Red Parent N	, ,
	ed Layers (A5) (LRR C	;)	Depleted M	, ,			Other (Explai	n in Remarks)
	Muck (A9) (LRR D)	(0.4.4)	Redox Darl					
	ed Below Dark Surface	(A11)	Depleted D		. ,		3 Indicators of hyd	rophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo	•	го)			logy must be present.
	Gleyed Matrix (S4)	L	J veman oo	15 (1 9)			unless distribu	uted or problematic
	Layer (if present):							
Type:du	ıripan							
	nches):2						Hydric Soil Prese	nt? Yes ○ No ●
Remarks: I	Extremely shallow, i	rocky substrate.	lava hardp	an at or n	ear surfa	ce. Wate	r flows via sheet flo	ow in a westerly direction
	downslope.		•					•
	200V							
HYDROL								
	ydrology Indicators: dicators (minimum of or	na raquirad, abaa	le all that ann				Secondary Ir	ndicators (2 or more required)
	,	<u>ne requirea; cnec</u>						Marks (B1) (Riverine)
	e Water (A1)	L	Salt Crust					, , ,
l <u> </u>	Vater Table (A2)	Ļ	Biotic Cru		- (D40)			nt Deposits (B2) (Riverine) posits (B3) (Riverine)
	tion (A3)		Aquatic In		, ,			e Patterns (B10)
=	Marks (B1) (Nonriveri	· '	Hydrogen		` '	Livina Do	=	uson Water Table (C2)
	ent Deposits (B2) (Nor	, E	Oxidized I		_	-	(/ ,	` '
l <u>=</u>	eposits (B3) (Nonriver	ine)	Presence Recent Iro		,	,		Burrows (C8) on Visible on Aerial Imagery (C9)
==	e Soil Cracks (B6)		_			rea Solis (′ <u></u>	3 , (,
l <u>—</u>	ition Visible on Aerial II Stained Leaves (B9)	magery (b7)	☐ Thin Muck☐ Other (Ex	`	,			Aquitard (D3) utral Test (D5)
Field Obse		L		Dialit III IXC	illaiks)			utiai rest (Do)
		es No 💿	Depth (in	ches):				
Water Tabl		es No (•)	Depth (in	· —				
Saturation	_	es No 💿	Depth (in	· —				
(includes ca	apillary fringe)						and Hydrology Pres	ent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
l								

Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	npling Date: 1	-19-15
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:D)P08
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 33, T 22N,	R 2E	_	
Landform (hillslope, terrace, etc.): sloped	d terrace		Local reli	ef (concave,	convex, none):none)	Slop	pe (%):5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724212		Long:-121.75282	27	 Datui	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst ,		pes			NWI cla	assification	:Upland	
Are climatic / hydrologic conditions on the	*	•	ear? Yes (No (
			disturbed		"Normal Circumstan		,	No 🔘
	- =		oblematic?		eeded, explain any a			
SUMMARY OF FINDINGS - Att	<u> </u>						,	aturos oto
SUMMART OF FINDINGS - AU	ach site map si	lowing	Sampin	ng point i	ocations, transe	ecis, iiii	Jortani iea	itures, etc.
Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes No	_		the Sample				
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 💿	
VEGETATION			Daminan	t laskastas	Daminana Tast		4-	
Tree Stratum (Use scientific names.)		Absolute % Cover	Species	t Indicator Status	Number of Domin			
1.					That Are OBL, FA			(A)
2.					Total Number of D	Onminant		
3.					Species Across A		3	(B)
4				_	Percent of Domina	ant Specie	s	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A/B)
1.					Prevalence Index	k workshe	et:	
2.					Total % Cove	er of:	Multiply	y by:
3.					OBL species		x 1 =	0
4.					FACW species	10	x 2 =	20
5					FAC species		x 3 =	0
	Total Cover:	%			FACU species	45	x 4 =	180
Herb Stratum		1.5	3 7		UPL species	35	x 5 =	175
1.Aira caryophyllea		15	Yes	FACU	Column Totals:	90	(A)	375 (B)
2.Dichelostemma capitatum 3.Layia fremontii		20	Yes No	FACU	Prevalence	Index = B/	'A =	4.17
4. Festuca microstachys		15	Yes	Not Listed	Hydrophytic Veg	etation In	dicators:	
5.Blennosperma nanum		10	No	FACW	Dominance T			
6.Bromus hordeaceous		10	No	FACU	Prevalence Ir	ndex is ≤3.0	D ¹	
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supporting
8.							n a separate	
	Total Cover:	90 %			Problematic H	Hydrophytic	c Vegetation'	(Explain)
Woody Vine Stratum		70			¹ Indicators of byd	rio goil on	d watland by	drology must
1. 2.					¹ Indicators of hyd be present.	nc son and	a welland nyo	arology must
2	Total Cover:	%			Hydrophytic			
% Bare Ground in Herb Stratum 10	0 % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 💿	j)
Remarks:								

SOIL Sampling Point: $\underline{DP08}$

Depth Matrix Redox Features Color (molst)
O-6 2.5 YR 2.5/3 100 Gravelly clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Vertice Soils: Type: C=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Vertice Soils: Type: C=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Vertice Soils: Type: C=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Vertice Soils: Type: C=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Vertice Soils: Type: Type: C=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Soils: Type: Typ
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Sandy Redox (S5) I to Muck (A9) (LRR C) Depletion Matrix (F3) Depletion Matrix (F3) Depletion Matrix (F3) Depleted Dark Surface (A10) Depleted Dark Surface (F1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9) Vernal Pools (F9) Vernal Pools (F9) Wetland Hydrology must be present. unless distributed or problematic Restrictive Layer (if present): Typedutripan Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. **YDROLOGY** Wetland Hydrology Indicators: Pt=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils: 3 I cm Muck (A9) (LRR C) Depleted Dark (A10) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes C No • Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. **YDROLOGY** Wetland Hydrology Indicators: Pt=Pore Lining, M=Matrix (B1) (Riverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Depletion Secondary Indicators
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Spipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocosi (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Epipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Epipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocosi (A1)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Epipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Epipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histor Epipedon (A2)
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocosi (A1)
Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present. Sandy Mucky Mineral (S1) Vernal Pools (F9) Vernal Pools (F9) Restrictive Layer (if present): Type:duripan Depth (inches):6 Hydric Soil Present? Yes No ● Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)
Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present. Sandy Mucky Mineral (S1) Vernal Pools (F9) Vernal Pools (F9) Restrictive Layer (if present): Type:duripan Depth (inches):6 Hydric Soil Present? Yes No ● Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:duripan Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. Hydric Soil Present? Yes No Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
1 cm Muck (A9) (LRR D)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:durripan Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. Hydric Soil Present? Yes No (•) No (•) Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Riverine) Drainage Patterns (B10)
Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present. Sandy Mucky Mineral (S1) Vernal Pools (F9) Restrictive Layer (if present): Type:duripan Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Prainage Patterns (B10)
Sandy Mucky Mineral (S1)
Restrictive Layer (if present): Type:duripan Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Sulface Water (A1) High Water Table (A2) Salt Crust (B12) Salturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Wetland Hydrology Indicators (2 or more required) Water Marks (B1) (Riverine) Drainage Patterns (B10)
Restrictive Layer (if present):
Depth (inches):6 Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Hydrogen Present? Yes ○ No ● Aquatic Invertebrates (B10)
Remarks: Hardpan visible at surface in many areas surrounding this data point. Soil on top of mounds were slightly deeper than in swale like features; however, they had similar characteristics. AYDROLOGY Wetland Hydrology Indicators:
swale like features; however, they had similar characteristics. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Sediment Deposits (B2) (Nontreeme)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches):
Water Table Present? Yes No (a) Depth (inches):
Saturation Present? Yes No Depth (inches):
(includes capillary fringe) Wetland Hydrology Present? Yes No •
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1-	-19-15
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:D	P09
Investigator(s): D. Machek, E. Gregg			Section,	Гownship, Ra	ange:S 33, T 22N,	R 2E	_	
Landform (hillslope, terrace, etc.): sloped	terrace		Local reli	ef (concave,	convex, none):none	;	Slop	pe (%):5.5
Subregion (LRR):C - Mediterranean Ca		Lat:39.7			Long:-121.76010			m:WGS 84
Soil Map Unit Name: Doemill-Jokerst , 3					_	assification		
Are climatic / hydrologic conditions on the		•	ar? Vec (No (
					"Normal Circumstan		,	No 🔘
			disturbed					INO (
Are Vegetation Soil or Hyd	rology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Atta	ch site map sl	nowing	sampli	ng point l	ocations, transe	ects, imp	portant fea	atures, etc.
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?		•	le	the Sample	1 Δτορ			
Wetland Hydrology Present?	_	•		thin a Wetla		\bigcirc	No 💿	
Remarks:				illiii a vvolia	103			
VEGETATION								
		Absolute		t Indicator	Dominance Test	workshee	et:	
Tree Stratum (Use scientific names.)	<u> </u>	% Cover	Species	Status_	Number of Domin			
1					That Are OBL, FA	.CW, or FA	C: 0	(A)
2					Total Number of D			
3					Species Across A	ll Strata:	4	(B)
4					Percent of Domina			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	.CW, or FA	C: ().() % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove	r of:	Multiply	/ by:
3.					OBL species		x 1 =	0
4.					FACW species	10	x 2 =	20
5					FAC species	10	x 3 =	30
Liberth Christian	Total Cover:	%			FACU species	35	x 4 =	140
Herb Stratum		1.5	Vac	E. Cu	UPL species	35	x 5 =	175
1.Aira caryophyllea		15	Yes	FACU	Column Totals:	90	(A)	365 (B)
2.Layia fremontii 3.Lepidium nitidum		15	Yes No	- NI FAC	Prevalence	Index = B/	/A =	4.06
4. Festuca sp.		20	Yes	Not Listed	Hydrophytic Veg	etation In	dicators:	
5.Blennosperma nanum		10	No	FACW	Dominance T			
6.Dichelostemma capitatum		20	Yes	FACU	Prevalence Ir	ndex is ≤3.0	O ¹	
7.					Morphologica	l Adaptatio	ons ¹ (Provide	supporting
8.				_	1		n a separate	
	Total Cover:	90 %		_	Problematic F	Hydrophytic	c Vegetation ¹	(Explain)
Woody Vine Stratum		JU %			1			
1					¹ Indicators of hyd be present.	ric soil and	d wetland hyd	drology must
2				_	_			
	Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 10	% Cover	of Biotic C	Crust	%	Present?	Yes 🔘	No 💿	
Remarks:				_ 	-1			

SOIL Sampling Point: $\underline{DP09}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	_ <u>%</u> _ Co	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3	100					Gravelly clay loam	<u> </u>
	_							-
	_							
	_							
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicat	ole to all LRRs, ur						Problematic Hydric Soils: 3
Histoso	. ,	Ļ	Sandy Redo					k (A9) (LRR C)
	Epipedon (A2) Histic (A3)	F	Stripped M Loamy Mu	. ,	J (F1)			k (A10) (LRR B) Vertic (F18)
	gen Sulfide (A4)	Ļ	Loamy Gle					nt Material (TF2)
`	ed Layers (A5) (LRR	C)	Depleted M		· (' -)			plain in Remarks)
	fluck (A9) (LRR D)	-/ 	Redox Dar		(F6)			, , ,
	ed Below Dark Surfac	ce (A11)	Depleted D		. ,			
Thick [Dark Surface (A12)		Redox Dep	ressions (F8)			hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				drology must be present.
Sandy	Gleyed Matrix (S4)						uniess als	tributed or problematic
Restrictive	Layer (if present):							
Type:du	ripan		_					
Depth (i	nches):4						Hydric Soil Pr	esent? Yes No No
Remarks: I	Hardpan visible at s	surface in many	areas surro	unding th	is data po	oint. Soil	on top of moun	ds were slightly deeper than in
s	wale like features;	however, they	had similar	character	istics.			
HYDROLO	200V							
	ydrology Indicators:							
	licators (minimum of o	one required; che	ck all that app	ly)				ry Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	t (B11)				er Marks (B1) (Riverine)
High W	/ater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic Ir	vertebrate	es (B13)			Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrive	rine)	Hydrogen	Sulfide O	dor (C1)			nage Patterns (B10)
Sedim	ent Deposits (B2) (No	onriverine)	Oxidized	Rhizosphe	res along	Living Roo		Season Water Table (C2)
Drift De	eposits (B3) (Nonrive	erine)	Presence	of Reduce	ed Iron (C4	1)	Cray	fish Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent Iro	on Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial	Imagery (B7)	Thin Mucl	Surface ((C7)		Shal	low Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present?	∕es	Depth (ir	nches):				
Water Tabl	e Present?	∕es ○ No ④	Depth (ir	nches):				
Saturation	Present?	res O No 🖲	Depth (ir	nches):				
	apillary fringe)						and Hydrology P	resent? Yes O No •
Describe R	ecorded Data (stream	n gauge, monitori	ng well, aerial	photos, pr	evious ins	pections),	ıt available:	
Remarks:		· · · · · · · · · · · · · · · · · · ·						

Section Strate CA Sampling Point DP10
Local relief (concave, convex, none): none
Solid Map Unit Name: Documil-Tokerst, 3 to 8 percent slopes
Solid Map Unit Name: Documil-Tokerst, 3 to 8 percent slopes
No Count Name: Documin Jokerst 3 to 8 percent slopes Ne Count Soil Or Hydrology Significantly disturbed? Are 'Normal Circumstances' present? Yes No No No No No No No N
Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are 'Normal Circumstances' present? Yes No No Are 'Normal Circumstances' present? Yes No No No Are 'Normal Circumstances' present? Yes No No No No Is the Sampled Area within a Wetland? Yes No No No No No No No N
Are Vegetation Soil or Hydrology Instituted? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology Instituted? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No
Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?
Hydrophytic Vegetation Present? Yes No Flat No Flat Scole Present? Yes No Flat Scole Present Scole Pr
Is the Sampled Area within a Wetland? Yes No No No No No No No N
Is the Sampled Area within a Wetland? Yes No No No No No No No N
Wetdland Hydrology Present? Yes No within a Wetland? Yes No • Remarks: Remarks: Within a Wetland? Yes No • VEGETATION VEGETATION VEGETATION Dominant Indicator Species Status Dominant Indicator Species Status Dominant Species That Are OBL, FACW, or FAC: 2 (A) 2 (A) 1. Septions Shrub Stratum Total Cover: % Total Species Status Total Species Status Total Species Status 6 (B) 1. Total Cover: % Prevalence Index worksheet: Total % Cover of Species Status Total Species Status X 1 = 0 OBL species Tatus X 1 = 0 OBL species Status X 1 = 0 OBL species Status X 1 = 0 OBL species Status X 1 = 0 FACW species Status X 2 = 20 FACW species Status X 3 = 45 FACU species Status X 3 = 45 FACU species Status X 5 = 75 Column Totals: Status X 5 = 75<
Number of Dominant Species Satistus Species Status Status Species Status Species Status Species Status Statu
Absolute Species Status Indicator Status Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Absolute Species Status Indicator Status Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Absolute Species Status Indicator Status Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Absolute Species Status Indicator Status Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Tree Stratum (Use scientific names.) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) 2. 3. Total Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) 3. 4. Percent of Dominant Species Across All Stratas: 6 (B) 4. Percent of Dominant Species That Are OBL, FACW, or FAC: 33,3 % (A/B) 7. Total Cover: % 9. Percent of Dominant Species That Are OBL, FACW, or FAC: 33,3 % (A/B) 8. Percent of Dominant Species That Are OBL, FACW, or FAC: 33,3 % (A/B) 9. Percent of Dominant Species Across All Stratas: 6 (B) 1. Percent of Dominant Species That Are OBL, FACW, or FAC: 33,3 % (A/B) 1. Percent of Dominant Species That Are OBL, FACW, or FAC: 32,3 % (A/B) 1. Percent of Dominant Species That Are OBL, FACW, or FAC: 32,0 % (A/B) 1. Percent of Dominant Species That Are OBL, FACW, or FAC: 32,0 % (A/B) 1. Percent of Dominant Species That Are OBL, FACW, or FAC: 32,0 % (A/B) 1. Percent of Dominant Species That Packed Species That Packed Species That Packed Spec
1.
2.
Sapling/Shrub Stratum
4.
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 % (A/B)
Prevalence Index worksheet: Total % Cover of:
1.
3.
4.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Herb Stratum 20 Yes FACU UPL species 15 x 5 = 75 1.Dichelostemma capitatum 10 Yes FACU Column Totals: 85 (A) 320 (B) 2.Aira caryophyllea 10 Yes FACU Prevalence Index = B/A = 3.76 3.Lepidium nitidum 10 Yes FAC Hydrophytic Vegetation Indicators: 5.Blennosperma nanum 10 Yes FACW Dominance Test is >50% Prevalence Index is ≤3.0¹ 6.Bromus hordeaceous 15 Yes FAC Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptations¹ (Explain) 7.Sedella pumila 5 No FAC Problematic Hydrophytic Vegetation¹ (Explain) Woody Vine Stratum 1 Indicators of hydric soil and wetland hydrology must be present.
1.Dichelostemma capitatum20YesFACUColumn Totals:85(A)320(B)2.Aira caryophyllea10YesFACUPrevalence Index = B/A = 3.763.Lepidium nitidum10YesFACHydrophytic Vegetation Indicators: $4.Festuca sp.$ 15YesNot ListedHydrophytic Vegetation Indicators: $5.Blennosperma nanum$ 10YesFACUDominance Test is >50% $6.Bromus hordeaceous$ 15YesFACUPrevalence Index is $\leq 3.0^{\circ}$ $7.Sedella pumila$ 5NoFACMorphological Adaptations (Provide supporting data in Remarks or on a separate sheet) $8.$ Problematic Hydrophytic Vegetation (Explain) $1.$ 1ndicators of hydric soil and wetland hydrology must be present.
2. Aira caryophyllea10YesFACU3. Lepidium nitidum10YesFACPrevalence Index = B/A = 3.764. Festuca sp.15YesNot Listed5. Blennosperma nanum10YesFACWDominance Test is >50%6. Bromus hordeaceous15YesFACUPrevalence Index is $\leq 3.0^{\circ}$ 7. Sedella pumila5NoFACMorphological Adaptations (Provide supporting data in Remarks or on a separate sheet)8.Problematic Hydrophytic Vegetation (Explain)
3. Lepidium nitidum 10 Yes FAC Prevalence Index = B/A = 3.76 4. Festuca sp. 15 Yes Not Listed Hydrophytic Vegetation Indicators: 5. Blennosperma nanum 10 Yes FACW Dominance Test is >50% 6. Bromus hordeaceous 15 Yes FACU Prevalence Index is ≤3.0¹ 7. Sedella pumila 5 No FAC Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. Problematic Hydrophytic Vegetation¹ (Explain) 1. Indicators of hydric soil and wetland hydrology must be present.
4. Festuca sp. 15 Yes Not Listed Hydrophytic Vegetation Indicators: 5. Blennosperma nanum 10 Yes FACW Dominance Test is >50% 6. Bromus hordeaceous 15 Yes FACU Prevalence Index is ≤3.0¹ 7. Sedella pumila 5 No FAC Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. Problematic Hydrophytic Vegetation¹ (Explain) Woody Vine Stratum ¹Indicators of hydric soil and wetland hydrology must be present.
5.Blennosperma nanum 10 Yes FACW 6.Bromus hordeaceous 7.Sedella pumila 8. Total Cover: 85 % Woody Vine Stratum 1. Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present.
6.Bromus hordeaceous 7.Sedella pumila 8. Total Cover: 85 % Woody Vine Stratum 1. Total Cover: 85 % Total Cover: 85 % 15 Yes FACU Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present.
7. Sedella pumila 8.
8
Woody Vine Stratum 1
Woody Vine Stratum 1.
be present.
20 process
2
Total Cover: % Hydrophytic Vegetation
% Bare Ground in Herb Stratum 15 % % Cover of Biotic Crust % Present? Yes O No •
Remarks:
ı

SOIL Sampling Point: $\underline{DP10}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	_ <u>%</u> _ Co	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	2.5 YR 2.5/3	_ 100					Gravelly clay loam	<u> </u>
								-
								-
	-							
							-	
								-
1	-							
'Type: C=0	Concentration, D=Dep	oletion, RM=Redu	iced Matrix. C	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicat	ole to all LRRs, un						Problematic Hydric Soils: 3
Histoso	. ,	L	Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)	L	Stripped M		.1 (54)			k (A10) (LRR B)
	Histic (A3)	L	Loamy Mu					Vertic (F18)
	gen Sulfide (A4)	C \	Loamy Gle Depleted M		(FZ)			nt Material (TF2) plain in Remarks)
	ed Layers (A5) (LRR Muck (A9) (LRR D)	<u> </u>	Redox Dar	, ,	(E6)		U Other (Ex	piair ir Keriarks)
	ed Below Dark Surfac	L (Δ11)	Depleted D		. ,			
	Dark Surface (A12)	C (ATT)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)	-	Vernal Poo		. 0)		wetland hy	drology must be present.
	Gleyed Matrix (S4)	L		(. 0)			unless dis	tributed or problematic
	Layer (if present):							
Type:du								
	nches):6		-				Hydric Soil Pr	esent? Yes No •
. ,		surface in many	orone currou	ındina th	ic data no	oint Soil	_	ds were slightly deeper than in
	wale like features;					mii. Son	on top of moun	us were slightly deeper than in
	swale like leatures,	nowever, they	nau siinnai v	maracter.	isucs.			
HYDROLO	OGY							
Wetland H	ydrology Indicators:							
	licators (minimum of o		ck all that ann	lv/)			Seconda	ry Indicators (2 or more required)
	•	one required, crie						er Marks (B1) (Riverine)
=	e Water (A1)		Salt Crust	` '				
l 🖳 🐧	/ater Table (A2)		Biotic Cru		(5.45)			iment Deposits (B2) (Riverine)
l 🖳	tion (A3)			vertebrate				Deposits (B3) (Riverine)
=	Marks (B1) (Nonriver			Sulfide O	` '		= =	nage Patterns (B10)
=	ent Deposits (B2) (No		_		res along	-		Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonrive	erine)			ed Iron (C4	,		fish Burrows (C8)
🗀	e Soil Cracks (B6)	ļ			on in Plow	ed Soils (· <u>—</u>	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial	Imagery (B7)	Thin Muck	Surface ((C7)			low Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present?	∕es	Depth (ir	iches):				
Water Tabl	e Present?	res No 📵	Depth (ir	iches):				
Saturation	Present?	∕es ○ No ●	Depth (ir	iches):				
	apillary fringe)						and Hydrology P	resent? Yes O No 💿
Describe R	ecorded Data (stream	n gauge, monitorii	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:)P11	
Investigator(s): D. Machek, E. Gregg			Section, T	Township, Ra	ange:S 28, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	ed terrace		Local reli	ef (concave,	convex, none):none	2	Slo	pe (%):6	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	731478		Long:-121.75485	50	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	ne site typical for this	time of ye	ar? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or H	ydrology sig	nificantly	disturbed'	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or H	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	howing	samplii	ng point l	ocations, transe	ects, imp	ortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VECETATION									
VEGETATION		Nh b - t -	Danis	t la Pastas	D T				
Tree Stratum (Use scientific names.)		Absolute % Cover	Species?	t Indicator Status	Dominance Test Number of Domin				
1.	_				That Are OBL, FA)	(A)
2.			-		Total Number of D	Cominant			
3.					Species Across A		4		(B)
4					Percent of Domin	ant Specie	3		
Sonling/Shrub Strotum	Total Cover:	%			That Are OBL, FA			0 %	(A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	y workshe	et.		
2.				_	Total % Cove		Multipl	v bv:	
3.				-	OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	35	x 4 =	140	
Herb Stratum		- 0	**		UPL species	55	x 5 =	275	
1. Festuca sp.		20	Yes	Not Listed	Column Totals:	90	(A)	415	(B)
2-Agoseris heterophylla		20	Yes	Not Listed	Prevalence	Index = B/	A =	4.61	
3.Bromus hordeaceous 4.Erodium botrys		15 20	No Yes	FACU FACU	Hydrophytic Veg	etation In	dicators:		
5.Dodecatheon clevelandii ssp. pa	 utulum	15	Yes	Not Listed	Dominance T				
6.	-	10	105		Prevalence Ir	ndex is ≤3.0) ¹		
7.				-	Morphologica	al Adaptatio	ns ¹ (Provide	supporti	ng
8.				_			n a separate		,
	Total Cover:	90 %			Problematic I	Hydrophytic	: Vegetation	(Explain	.)
Woody Vine Stratum					¹ Indicators of hyd	lric coil an	t wotland by	drology r	muet
1					be present.	inc son and	a welland my	urology i	iiust
2	Total Cover:	%			Hydrophytic				
					Vegetation				
	0 % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes 🖯	No 🖲)	
Remarks:									

SOIL Sampling Point: DP11

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	2.5 YR 2.5/3	100					Gravelly clay loam	
¹ Type: C=	 Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
								3
	Indicators: (Applicable	e to all LRRs, unl	_					Problematic Hydric Soils: 3
Histos			Sandy Redo	` '				k (A9) (LRR C)
	Epipedon (A2) Histic (A3)		Stripped Ma	, ,	J (E1)			k (A10) (LRR B) Vertic (F18)
	gen Sulfide (A4)		Loamy Gle					nt Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted M		(1 2)			plain in Remarks)
	/Juck (A9) (LRR D)	''	Redox Dark		(F6)			praint in the internet
	ed Below Dark Surface	e (A11)	Depleted D		. ,			
Thick I	Dark Surface (A12)	` '	Redox Dep	ressions (F8)			nydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				drology must be present.
Sandy	Gleyed Matrix (S4)						unless dist	ributed or problematic
Restrictive	e Layer (if present):							
Type:du	ıripan							
Depth (i	inches):2						Hydric Soil Pro	esent? Yes No No
Remarks: 1	Extremely shallow, 1	rocky substrate	, lava hardp	an at or n	ear surfa	ce. Wate	er flows via sheet	flow in a westerly direction
(downslope.							
HYDROL	nev							
	ydrology Indicators:		d. all that amal)			Secondar	ry Indicators (2 or more required)
	dicators (minimum of or	ne requirea; cned						er Marks (B1) (Riverine)
l ==	e Water (A1)	Ĺ	Salt Crust	` ′				
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Cru		(5.45)		<u></u>	ment Deposits (B2) (Riverine)
l 🖳	ition (A3)	Ĺ	Aquatic In					Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	nage Patterns (B10)
=	ent Deposits (B2) (Nor		Oxidized F		_	-	()	Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		fish Burrows (C8)
==	e Soil Cracks (B6)	(D7)	Recent Iro			red Soils (ration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial Ir	magery (B7)	Thin Muck	,	,			low Aquitard (D3)
	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse		O O	5 //					
		es No 💿	Depth (in	· —				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes c	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	land Hydrology P	resent? Yes No •
	lecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			
	`	_ '		• •		,,		
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:D	P12	
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 33, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): slope	d terrace		Local reli	ef (concave,	convex, none):sligh	tly conve	x Slop	oe (%):4.	.5
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	716327		Long:-121.76224	-2	 Datur	n:WGS	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification	:Upland		
Are climatic / hydrologic conditions on th	ne site typical for this	time of ye	ear? Yes (• No ((If no, explair	n in Remar	 ks.)		
Are Vegetation Soil or H	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No (\bigcirc
			oblematic?		eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - At								atures,	etc.
Hydrophytic Vegetation Present?		•	i i	<u> </u>	<u>, </u>				
Hydric Soil Present?		•	ls	the Sampled	d Δrea				
Wetland Hydrology Present?	_	•		thin a Wetla		\bigcirc	No 💿		
Remarks:			1						
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test				
1.	_	70 00101		<u> </u>	Number of Domina That Are OBL, FA			((A)
2.			-		-			,	()
3.					 Total Number of D Species Across Al 		3	((B)
4.				-	- Percent of Domina			,	
	Total Cover:	%			That Are OBL, FA) % ((A/B)
Sapling/Shrub Stratum					Prevalence Index	worksho	041		
1. 2.					Total % Cove		er. Multiply	, hv:	
3.					OBL species	1 01.	x 1 =	0	
4.				-	FACW species	10	x 2 =	20	
5.				-	FAC species	5	x 3 =	15	
	Total Cover:	%	_		FACU species	50	x 4 =	200	
Herb Stratum					UPL species	20	x 5 =	100	
1.Bromus hordeaceous		25	Yes	FACU	Column Totals:	85	(A)	335	(B)
2-Erodium botrys		25	Yes	FACU	Prevalence I	ndex = B/	Δ –	3.94	
3. Lepidium nitidum		5	No	FAC	Hydrophytic Veg			3.74	
4. Festuca microstachys 5. Blennosperma nanum		20 10	Yes No	Not Listed FACW	Dominance To				
6.		10		- TACW	Prevalence In				
7.				-	Morphologica	l Adaptatio	ns ¹ (Provide	supportir	ng
8.							n a separate		
	Total Cover:	85 %		-	Problematic F	lydrophytic	Vegetation'	(Explain))
Woody Vine Stratum		05 /0			1 adiantary of head		بريط لمصطلمين		
1				-	¹ Indicators of hyden be present.	nc son and	a wetland nyd	arology n	nust
2		0/			Hydrophytic				
	Total Cover:	%			Vegetation				
	5 % Cover 6	of Biotic C	Crust	<u>%</u>	Present?	Yes 🖯	No 💿		
Remarks:								•	

SOIL Sampling Point: <u>DP12</u>

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	2.5 YR 2.5/3	_100					Gravelly clay loam	
	_							
¹ Type: C=0	 Concentration, D=Depl 	etion. RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
, ,,,,,,,								3,
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwise	noted.)			Indicators for	Problematic Hydric Soils: 3
Histos	ol (A1)		Sandy Redo	x (S5)				k (A9) (LRR C)
Histic I	Epipedon (A2)		Stripped Ma	. ,			2 cm Muc	k (A10) (LRR B)
	Histic (A3)		Loamy Mud	-	. ,			Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	` '	(Fo)		Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)	(0.1.1)	Redox Dark		` '			
. — .	ed Below Dark Surface Dark Surface (A12)	(ATT)	Redox Dep		` '		3 Indicators of I	nydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	10)		wetland hy	drology must be present.
	Gleyed Matrix (S4)	L	_ vemair oo	15 (1 5)			unless dist	ributed or problematic
	Layer (if present):							
Type:	, , , ,							
Depth (i	nches):						Hydric Soil Pro	esent? Yes No 💿
Remarks:							,	
HYDROL								
Wetland H	ydrology Indicators:							
	dicators (minimum of or	ne required; chec	k all that appl	y)				y Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru				Sedi	ment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic In	vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drair	nage Patterns (B10)
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizosphe	res along	Living Roo	ots (C3) Dry-	Season Water Table (C2)
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	1)	Cray	fish Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface (C7)		Shall	ow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in Re	marks)		FAC-	-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):				
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):				
	apillary fringe)		a woll assist	nhotos ==	ovious in-		and Hydrology P	resent? Yes No •
Describe R	ecorded Data (stream	gauge, monitorin	ig weii, aerial	pnotos, pr	evious ins	pections),	ıı avallable:	
D								
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State: CA	Sam	npling Point:)P13	
Investigator(s): D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 33, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	ed terrace		Local reli	ef (concave,	convex, none):conv	/ex	Slo	pe (%):6	
Subregion (LRR):C - Mediterranean (California	Lat:39.7	720224		Long:-121.7518	75	 Datu	m:WGS	84
Soil Map Unit Name: Jokerst-Doemill		s, 8 to 1	15 percen	t slopes	NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the									
			disturbed		"Normal Circumstan		_	No (\bigcirc
			oblematic?		eeded, explain any a	•			
SUMMARY OF FINDINGS - At								atures.	etc.
						, _[
Hydrophytic Vegetation Present? Hydric Soil Present?		••	la.	the Comple	J A.o.o.				
Wetland Hydrology Present?	_	•		the Sampled thin a Wetla		\bigcirc	No 💿		
Remarks:	100		WI	um a vvena	iiu: 165		140 🕲		
VEGETATION									
		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)			Species?		Number of Domin	ant Specie	S		
1					That Are OBL, FA	CW, or FA	C: 0	(/	(A)
2				_	Total Number of [Dominant			
3					Species Across A	II Strata:	4	(1	(B)
4		0.1		_	Percent of Domin				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	.C: ().(0 % (/	A/B)
1.					Prevalence Inde	x workshe	et:		
2.					Total % Cove	er of:	Multiply	y by:	
3					OBL species		x 1 =	0	
4				_	FACW species	4.0	x 2 =	0	
5				-	FACILIANASIA	10	x 3 =	30	
Herb Stratum	Total Cover:	%			FACU species UPL species	00	x 4 = x 5 =	0	
1.Bromus hordeaceous		20	Yes	Not Listed	Column Totals:	80		400 430	(B)
2. Erodium botrys		15	Yes	Not Listed	_ Column Totals.	90	(A)	430	(D)
3. Lepidium nitidum		10	No	FAC	Prevalence			4.78	
4. Festuca microstachys		25	Yes	Not Listed	Hydrophytic Veg				
5. Dodecatheon clevelandii ssp. po	ıtulum	20	Yes	Not Listed	Dominance T				
6				_	Prevalence Ir				
7					Morphologica data in Re	emarks or o	ns (Provide n a separate	supportin	ig
8				_	Problematic I)
Woody Vine Stratum	Total Cover:	90 %							
1				_	¹ Indicators of hydbe be present.	Iric soil and	d wetland hy	drology m	nust
2					_				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum1	0 % Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🗨)	
Remarks:					•				

SOIL Sampling Point: <u>DP13</u>

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	_ <u>%</u> _ Co	olor (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3	100					Gravelly clay loam	<u> </u>
	-							
	-						-	
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicat	ole to all I RRs un	less otherwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)	<u> </u>	Stripped M	. ,				k (A10) (LRR B)
	Histic (A3)	Ī	Loamy Mu	. ,	ıl (F1)			Vertic (F18)
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Pare	nt Material (TF2)
Stratifie	ed Layers (A5) (LRR	C)	Depleted M	latrix (F3)			Other (Ex	plain in Remarks)
	fluck (A9) (LRR D)		Redox Dar		. ,			
	ed Below Dark Surfac	ce (A11)	Depleted D		` ,		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	Ĺ	Redox Dep	,	F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Poo	IS (F9)				tributed or problematic
	Layer (if present):							· · · · · · · · · · · · · · · · · · ·
	Layer (ii present):							
Type:								
Depth (i							Hydric Soil Pr	esent? Yes No •
Remarks: S	Soil sample taken o	on top of mound	1.					
HYDROLO	OGY							
	ydrology Indicators:	•						
1	licators (minimum of		ak all that ann	ls.			Seconda	ry Indicators (2 or more required)
	•	one required, che						er Marks (B1) (Riverine)
	e Water (A1)		Salt Crust	` '				iment Deposits (B2) (Riverine)
l 🖳 🐧	/ater Table (A2)		Biotic Cru		- (D40)			. , , , , ,
l <u>—</u>	tion (A3)		=	vertebrate				Deposits (B3) (Riverine)
l <u>=</u>	Marks (B1) (Nonrive	-		Sulfide O	` '	Listen De	= =	nage Patterns (B10)
=	ent Deposits (B2) (No		=		res along	-		Season Water Table (C2)
l <u>=</u>	eposits (B3) (Nonrive	erine)	<u> </u>		ed Iron (C4	,		rfish Burrows (C8)
=	e Soil Cracks (B6)	I (DZ)	_		on in Plow	rea Solis (· <u>—</u>	ration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial	Imagery (B7)	_	Surface (,			low Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse								
		∕es						
Water Tabl	e Present?	∕es ○ No ⊙	Depth (ir	iches):				
Saturation		∕es ○ No ●	Depth (ir	iches):		Wot	and Hydrology P	resent? Yes O No •
	apillary fringe) ecorded Data (stream	n gauge monitori	ng well aerial	photos pr	evious inc			resent? Yes O No (•)
2000 IN	Julia Dala (Bildall	. 34430, 111011110111		F. 10100, PI	27.000 IIIO	r 00000110),	aranabio.	
Remarks:								
nemarks.								

Project/Site: The Valley's Edge			City/C	county:Butte		Sar	mpling Date:	1-19-15
Applicant/Owner: B. Brouhard					State:CA	Sar	mpling Point:]	DP14
Investigator(s): D. Machek, E. Gregg			Section	on, Township, Ra	nge:S 33, T 22N,	R 2E	-	
Landform (hillslope, terrace, etc.): terrace	 e		Local	I relief (concave,	convex, none):none	 e	Slo	ope (%):3
Subregion (LRR):C - Mediterranean Ca		Lat:39.7	71237	3	Long:-121.75304	<u>47</u>		um:WGS 84
Soil Map Unit Name: Doemill-Jokerst ,					_		n:Upland	
Are climatic / hydrologic conditions on the	*	-	ar? V	es No (
		unificantly					,	No.C
		,			"Normal Circumstan	•		No (
Are Vegetation Soil or Hyd	rology na	turally pro	oblema	atic? (If ne	eeded, explain any a	inswers in	Remarks.)	
SUMMARY OF FINDINGS - Atta	ach site map sl	howing	sam	pling point le	ocations, trans	ects, im	portant fe	eatures, etc.
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?		•		Is the Sampled	1 Δτορ			
Wetland Hydrology Present?		•		within a Wetla		\bigcirc	No •	
Remarks:				Within a Wetia	10: 103		110	
VEGETATION					-			
Tree Stratum (Use scientific names.)		Absolute % Cover		inant Indicator cies? Status	Dominance Test			
1.		70 COVCI	Орсс	olds: Oldius	Number of Domin			1 (A)
2.					-	•		1 (71)
3.				·	 Total Number of I Species Across A 			5 (B)
4.				<u></u>	_) (D)
	Total Cover:	%		-	Percent of Domin That Are OBL, FA			0.0 % (A/B)
Sapling/Shrub Stratum		,,,			·).0 % (/(b)
1					Prevalence Inde			
2					Total % Cove	r of:	Multip	
3					OBL species	~	x 1 =	0
4				 -	FACW species	5	x 2 =	10 45
5	Total Causes	0/		<u>.</u>	FAC species FACU species	15	x 3 = x 4 =	
Herb Stratum	Total Cover:	%			UPL species	30	x 4 = x 5 =	120
1.Bromus hordeaceous		20	Yes	FACU	1	30		150 325 (B)
2. Erodium botrys		10	Yes	FACU	Column Totals:	80	(A)	323 (B)
3. Lepidium nitidum		15	Yes	FAC	Prevalence	Index = B	3/A =	4.06
4. Festuca microstachys		20	Yes	Not Listed	Hydrophytic Veg	etation Ir	ndicators:	
5. Layia fremontii		10	Yes	NI	Dominance T	est is >50)%	
6.Blennosperma nanum		5	No	FACW	Prevalence Ir			
7.					Morphologica		ions ¹ (Provide on a separate	
8.					Problematic I		•	•
Manda Vina Charles	Total Cover:	80 %			1 Toblematic i	тушторттуп	ic vegetation	(Explair)
Woody Vine Stratum					¹ Indicators of hyd	łric soil ar	nd wetland h	vdrology must
1. 2.			-		be present.	110 0011 011	ia wonana n	yarology mast
2	Total Cover:	%			Hydrophytic			
20					Vegetation			
% Bare Ground in Herb Stratum20	% Cover 0	or Biotic (rust _	<u></u>	Present?	Yes C	No (9
Remarks:								

SOIL Sampling Point: $\underline{DP14}$

Profile Description: (Describe to the			or confirm	n the absence of indica	ators.)		
Depth Matrix (inches) Color (moist) %		ox Features % Type ¹	Loc ²	Toyturo	Domorto		
		%Type ¹	LOC-		Remarks		
0-3 2.5 YR 2.5/3 10				Gravelly clay loam			
Type: C=Concentration, D=Depletion			od Sond Cr	roins ² l ocat	ion: PL=Pore Lining, M=Matrix.		
Type: C=Concentration, D=Depletion	, RIVI=Reduced Matrix. C	S=Covered or Coal	ed Sand Gi	rains Local	ion. FL=Fore Litting, W=Wattix.		
Hydric Soil Indicators: (Applicable to a	III LRRs, unless otherwis	e noted.)		Indicators for Proble	ematic Hydric Soils: 3		
Histosol (A1)	Sandy Red			1 cm Muck (A9)			
Histic Epipedon (A2)	Stripped M	, ,		2 cm Muck (A10			
Black Histic (A3)		cky Mineral (F1)		Reduced Vertic			
Hydrogen Sulfide (A4)	Loamy Gle	eyed Matrix (F2)		Red Parent Mat Other (Explain i	, ,		
Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)		rk Surface (F6)		Other (Explain)	ii Keiliaiks)		
Depleted Below Dark Surface (A1)		Dark Surface (F7)					
Thick Dark Surface (A12)	·	pressions (F8)		3 Indicators of hydror			
Sandy Mucky Mineral (S1)	Vernal Poo	ols (F9)			gy must be present.		
Sandy Gleyed Matrix (S4)				unless distribute			
Restrictive Layer (if present):							
Type:duripan							
Depth (inches):3				Hydric Soil Present	? Yes No •		
Remarks: Very thin layer of soil loo	cated on ridge top.						
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of one re-	quired; check all that app	oly)			cators (2 or more required)		
Surface Water (A1)	Salt Crus	t (B11)		Water Ma	rks (B1) (Riverine)		
High Water Table (A2)	Biotic Cru				Deposits (B2) (Riverine)		
Saturation (A3)	₩'	nvertebrates (B13)			sits (B3) (Riverine)		
Water Marks (B1) (Nonriverine)	₩, , ,	Sulfide Odor (C1)		=	Patterns (B10)		
Sediment Deposits (B2) (Nonriver	· =	Rhizospheres along	_		n Water Table (C2)		
Drift Deposits (B3) (Nonriverine)	<u></u>	e of Reduced Iron (Co on Reduction in Plo	,		urrows (C8) Visible on Aerial Imagery (C9)		
Surface Soil Cracks (B6) Inundation Visible on Aerial Image	<u></u>	k Surface (C7)	wed Solis (<i>'</i>	quitard (D3)		
Water-Stained Leaves (B9)		(plain in Remarks)			ral Test (D5)		
Field Observations:	Outlot (Ex	plain in remarks)		17.0 1.04	ui 100t (20)		
Surface Water Present? Yes	No Depth (ii	nches):					
Water Table Present? Yes		· ———					
Saturation Present? Yes		· ———					
(includes capillary fringe)				and Hydrology Presen	t? Yes O No 💿		
Describe Recorded Data (stream gaug	e, monitoring well, aerial	photos, previous in	spections),	if available:			
Remarks:							

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1	-19-15	
Applicant/Owner: B. Brouhard		State:CA					Sampling Point:DP15		
Investigator(s): D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 33, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	ed terrace		Local reli	ef (concave,	convex, none):none	;	Slo	pe (%):5	
Subregion (LRR):C - Mediterranean	California	Lat:39.7	714425		Long:-121.75847	['] 2	Datum: WGS 84		
Soil Map Unit Name: Jokerst-Doemill	-Typic Haploxeralf	s, 8 to 1	15 percen	t slopes	NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	he site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remai	·ks.)		
Are Vegetation Soil or H	lydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (\circ
Are Vegetation Soil or H	lydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map sl	nowing	sampli	ng point l	ocations, transe	ects, imp	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshoe			
Tree Stratum (Use scientific names.			Species?		Number of Domin				
1.					That Are OBL, FA			((A)
2					Total Number of D	Oominant			
3					Species Across A		4	((B)
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0	0 % ((A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species	10	x 3 =	30	
Herb Stratum	Total Cover:	%			FACU species	20	x 4 =	80	
1.Elymus caput medusae		20	Yes	UPL	UPL species	70	x 5 =	350	<i>(</i> =)
2. Dodecatheon clevelandii ssp. po	atulum	20	Yes	Not Listed	Column Totals:	100	(A)	460	(B)
3. Lepidium nitidum		10	No	FAC	Prevalence	Index = B	/A =	4.60	
4. Festuca microstachys		30	Yes	Not Listed	Hydrophytic Veg	etation In	dicators:		
5.Bromus hordeaceous		20	Yes	FACU	Dominance T	est is >509	%		
6.					Prevalence Ir				
7.					Morphologica	l Adaptatio	ons¹ (Provide on a separate	supporting	ng
8.					- Problematic H			,	١
Woody Vine Stratum	Total Cover:	100%			1 Toblematic 1	туагорттуа	o vegetation	(Explair)	,
					¹ Indicators of hyd	ric soil and	d wetland hy	drology n	nust
1. 2.				_	be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % % Cover of		Crust	%	Vegetation Present?	Yes 〇	No 💽)	
Remarks:			· <u> </u>						
1									

SOIL Sampling Point: DP15

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	2.5 YR 2.5/3						Gravelly clay loan	1
								-
	-							
	-							
-								
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	Cocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,				ck (A10) (LRR B)
	Histic (A3)		Loamy Mu					Vertic (F18)
	jen Sulfide (A4) ed Layers (A5) (LRR C	.,	Loamy Gle		(F2)			nt Material (TF2) plain in Remarks)
l <u>—</u>	luck (A9) (LRR D)	·)	Depleted Market Redox Dar		(F6)		Other (LX	piain in Kemarks)
	ed Below Dark Surface	e (A11)	Depleted D		,			
Thick D	Oark Surface (A12)	` '	Redox Dep	ressions (I	F8)			hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ols (F9)				drology must be present. ributed or problematic
	Gleyed Matrix (S4)						uniess dis	induted of problematic
	Layer (if present):							
Type:	l \						Uhadaia Gail Ba	No. 6
Depth (ii		:1 1:-	1				Hydric Soil Pr	esent? Yes No No
Remarks: V	Very thin layer of so	on rocated on ri	ige top					
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; chec	k all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crus	t (B11)				ter Marks (B1) (Riverine)
<u> </u>	ater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
l 🖳	tion (A3)		= '	vertebrate				Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	· _	= ' '	Sulfide O	, ,		= =	nage Patterns (B10)
==	ent Deposits (B2) (Nor	·	=	Rhizosphe	_	_	` / 📃	Season Water Table (C2)
🖳	eposits (B3) (Nonriver e Soil Cracks (B6)	ine)	=	of Reduce on Reduction				rfish Burrows (C8) Iration Visible on Aerial Imagery (C9)
🖳	tion Visible on Aerial I	mageny (B7)	=	k Surface (reu solis (· <u></u>	llow Aquitard (D3)
=	Stained Leaves (B9)		⊒	plain in Re	,			:-Neutral Test (D5)
Field Obse	. ,	L		piaiii iii ito	maritoj			
		es O No 💿	Depth (ir	nches):				
Water Table		es No 💿	Depth (ir	<i>′</i> —				
Saturation I		es No 💿	Depth (ir	· · · · · · · · · · · · · · · · · · ·				
	apillary fringe)		مسما ممتنما	nhotoo nr	ovious ins		land Hydrology P	Present? Yes No No
Describe K	ecorded Data (stream	gauge, monitorin	g well, aerial	priotos, pri	evious iris	pections),	ii avaliable.	
Remarks:								
. Komano.								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:D	P16	
Investigator(s): D. Machek, E. Gregg			Section, T	Township, Ra	ange:S 33, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	d terrace		Local reli	ef (concave,	convex, none):none	;	Slop	ne (%):5.5	
Subregion (LRR):C - Mediterranean C		Lat:39.7		•	Long:-121.76359				
Soil Map Unit Name: Doemill-Jokerst					_	assification			
Are climatic / hydrologic conditions on the	<u>*</u>	•	ar? Vas (• No (
					"Normal Circumstan		,	No C	,
			disturbed'			•		NO (
Are Vegetation Soil or H	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplii	ng point l	ocations, transe	ects, imp	oortant fea	ıtures, e	tc.
Hudrophytic Vagetation Present?	Yes No								
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No		le i	the Sample	d Aroa				
Wetland Hydrology Present?	Yes No	_		thin a Wetla		\circ	No 💿		
Remarks:			WIII	umi a vvena	iiu: ies		140 (3)		
VEGETATION									
	<i>F</i>	Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	, <u> </u>	% Cover	Species?	Status_	Number of Domin	ant Specie	S		
1				_	That Are OBL, FA	CW, or FA	C: 0	(A)	.)
2					Total Number of D	Oominant			
3					Species Across A		3	(B))
4					Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA) % (A/	/B)
1.					Prevalence Index	workshe	et:		
2.				-	Total % Cove		Multiply	v bv:	
3.				-	OBL species		x 1 =	0	
4.				-	FACW species	10	x 2 =	20	
5.				-	FAC species		x 3 =	0	
	Total Cover:	%			FACU species	40	x 4 =	160	
Herb Stratum					UPL species	40	x 5 =	200	
1. Trichostema lanceolatum		10	No	Not Listed	Column Totals:	90	(A)	380	(B)
2.Layia fremontii		10	No	NI	- Daniel and	la de la Di	^	4.00	
3.Blennosperma nanum		10	No	FACW	Prevalence			4.22	
4.Festuca sp.		20	Yes	Not Listed	Hydrophytic Veg Dominance T				
5.Bromus hordeaceous		20	Yes	FACU	Prevalence Ir				
6.Dichelostemma capitatum		20	Yes	FACU	Morphologica			cupporting	
7					data in Re	marks or o	n a separate	sheet)	1
8					Problematic F	Hydrophytic	Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover:	90 %							
1					¹ Indicators of hyd	ric soil and	d wetland hyd	drology mu	ıst
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 1	0 % % Cover o	of Riotic (ruet	04	Vegetation Present?	Yes 〇	No (•		
Remarks:		יייייייייייייייייייייייייייייייייייייי		<u>%</u>	i resent:	169 (140		
Nemarks.									

SOIL Sampling Point: $\underline{DP16}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	2.5 YR 2.5/3	100					Gravelly clay loam	<u> </u>
	_							-
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicab	ale to all I RRs ur	less otherwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)	-	Stripped M	. ,				k (A10) (LRR B)
	Histic (A3)	Ī	Loamy Mud	. ,	ıl (F1)			Vertic (F18)
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Pare	nt Material (TF2)
Stratific	ed Layers (A5) (LRR	C)	Depleted M	latrix (F3)			Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)		Redox Dar		. ,			
	ed Below Dark Surfac	e (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	L	Redox Dep	,	F8)			drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	IS (F9)				tributed or problematic
	Gleyed Matrix (S4) Layer (if present):							· · · · · · · · · · · · · · · · · · ·
Type:du			-					10 V C N G
. ,	nches):3	**		••			Hydric Soil Pr	esent? Yes No •
Remarks: I	Extremely rocky are	ea. Very thin to	p layer of so	1l.				
HYDROL	OGY							
	ydrology Indicators:							
	licators (minimum of c		ck all that ann	lv)			Seconda	ry Indicators (2 or more required)
	e Water (A1)	one required, ene	Salt Crust					er Marks (B1) (Riverine)
=	/ater Table (A2)		Biotic Crus	` '				iment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)			vertebrate	oc (B12)			Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonrive r	ino)	= '	Sulfide O				nage Patterns (B10)
=	ent Deposits (B2) (No				eres along	Living Por	= =	Season Water Table (C2)
=	ent Deposits (B2) (Nonrive		=		ed Iron (C4	_	(,	rfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	illo)	<u> </u>		on in Plow	,		ration Visible on Aerial Imagery (C9)
🗀	tion Visible on Aerial	Imagen/ (B7)	Thin Muck			rea cons (· <u>—</u>	low Aquitard (D3)
=	Stained Leaves (B9)	iiilageiy (b <i>i)</i>	_	plain in Re	,			-Neutral Test (D5)
Field Obse	. ,		Other (EX	piaiii iii ike	illarks)			reducti rest (Bo)
		′es O No 💽	Denth (in	ches).				
		_						
Water Tabl		′es O No 📵						
Saturation (includes ca	Present? γ apillary fringe)	′es O No 🗨	Depth (in	iches):		Wetl	and Hydrology P	resent? Yes No (•)
	ecorded Data (stream	n gauge, monitori	ng well, aerial	photos, pr	evious ins			
	,			•		,,		
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	npling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:[)P17	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 28, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): slope	d terrace		Local reli	ef (concave,	convex, none):none)	Slo	pe (%):5.	.5
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	729518		Long:-121.76133	38	 Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	· •	•	ear? Yes (No (
			disturbed		"Normal Circumstan		,	No	\bigcirc
			oblematic?		eeded, explain any a				
SUMMARY OF FINDINGS - At	_						,	aturas	etc
SOMMAN OF THE HOUSE AL			Sampin	ing point is	ocations, trans	oto, iiii	Jortant le	, itui 63,	CIC.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_		the Sample			0		
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 💿		
VEGETATION									
	<i>F</i>	Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	<u> </u>	% Cover	Species	Status_	Number of Domin	ant Specie	S		
1					That Are OBL, FA	CW, or FA	.C: 1		(A)
2					Total Number of D Species Across A		5		(B)
4					Percent of Domin	ant Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
1.					Prevalence Index	k workshe	et:		
2.				-	Total % Cove		Multipl	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species	15	x 3 =	45	
	Total Cover:	%			FACU species	55	x 4 =	220	
Herb Stratum		1.5	37		UPL species	10	x 5 =	50	
1.Aira carypohyllea		15	Yes	FACU	Column Totals:	80	(A)	315	(B)
2.Sedella pumila 3.Layia fremontii		15	Yes Yes	FAC NI	Prevalence	Index = B/	'A =	3.94	
4.Bromus hordeaceous		15	Yes	FACU	Hydrophytic Veg	etation In	dicators:		
5. Dichelostemma capitatum		25	Yes	FACU	Dominance T				
6.					Prevalence Ir	ndex is ≤3.0	D ¹		
7.					Morphologica	l Adaptatio	ons ¹ (Provide	supporti	ng
8.							n a separate		,
	Total Cover:	80 %			Problematic F	Hydrophytic	c Vegetation	(Explain)
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d watland by	drology	muet
1. 2.					be present.	iic son and	a welland ny	urology i	iiusi
2	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum2	0 % Cover o	of Biotic C	Crust	%	Present?	Yes 🔘	No 🖲)	
Remarks:					-1				

SOIL Sampling Point: <u>DP17</u>

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	2.5 YR 2.5/3	100					Gravelly clay loam	
	_							-
	_							
	-							
¹ Type: C=0	Concentration, D=Dep	letion RM=Redu	ıced Matrix C	S=Covere	d or Coate	d Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
Type. 0=\	Solicentiation, B-Be,	Jones III III III III III III III III III I	icca iviatrix. O	0=007010	a or coate	a Garia Gi	idilis	Zooddon i Zar oro zining, manadix.
Hydric Soil	Indicators: (Applicat	le to all LRRs, un	less otherwis	e noted.)			Indicators for	Problematic Hydric Soils: ³
Histoso			Sandy Redo					k (A9) (LRR C)
Histic E	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muc	k (A10) (LRR B)
	Histic (A3)		Loamy Mu					Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			nt Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted M				Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)		Redox Dar		. ,			
	ed Below Dark Surfac	ce (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	Ļ	Redox Dep	,	F8)			drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	IS (F9)				tributed or problematic
	Gleyed Matrix (S4)						1	
	Layer (if present):							
Type:du			-					
	nches):2						Hydric Soil Pr	
	-	rocky substrate	e, lava hardp	an at or n	iear surta	ce. Wate	r flows via shee	t flow in a westerly direction
C	lownslope.							
HYDROL	OGY							
Wetland H	ydrology Indicators:							
1	licators (minimum of o		ck all that app	lv)			Seconda	ry Indicators (2 or more required)
	e Water (A1)		Salt Crust					er Marks (B1) (Riverine)
l <u>=</u>	/ater Table (A2)		Biotic Cru	` '				ment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)			vertebrate	oc (B13)			Deposits (B3) (Riverine)
l <u>—</u>	` '	rino)	=	Sulfide O				nage Patterns (B10)
l <u>=</u>	Marks (B1) (Nonriver				eres along	Livina Boo	= =	Season Water Table (C2)
=	ent Deposits (B2) (No		=		ed Iron (C4	-		, ,
l <u>=</u>	eposits (B3) (Nonrive	rine)	<u> </u>		on in Plow	,		fish Burrows (C8)
=	e Soil Cracks (B6)	Imagani (DZ)	_			rea sons (· <u>—</u>	ration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial	Imagery (B7)	_	Surface (,			low Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)
Field Obse		(aa (Danth (in	- de - e).				
		′es ○ No ●						
Water Table	e Present?	′es ○ No ●	Depth (ir	iches):				
Saturation		′es 🔵 No 💽	Depth (ir	iches):		Wetl	and Hydrology P	resent? Yes O No •
	apillary fringe) ecorded Data (stream	n gauge, monitori	ng well. aerial	photos, pr	evious insi			100 0 100
	2.2.2.2.2.2.4000000	J	, من المارين	,, pi		,,,		
Remarks:								
ixomaiks.								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:	V02	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrac	e		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	724387		Long:-121.77601	7	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on th			ar? Yes	No (
			disturbed		"Normal Circumstand		,	No	\bigcirc
			oblematic		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att				`			,	atures.	etc.
	·			9 po		, , , , , , , ,			
Hydrophytic Vegetation Present? Hydric Soil Present?	_			(l Ol-	1.4				
Wetland Hydrology Present?	_			the Sampled ithin a Wetla			No (
Remarks:	103 (W	itnin a wetia	na? res		NO U		
VEGETATION									
Tree Charters (Head asigntific passes)		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina				(
1. 2.				_	That Are OBL, FA	CVV, OI FA	C: 4		(A)
3.					Total Number of D Species Across Al		5		(B)
4					Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	r of:	Multipl	y by:	_
3.				_	OBL species	20	x 1 =	20	
4.					FACW species	10	x 2 =	20	
5					FAC species	25	x 3 =	75	
	Total Cover:	%			FACU species	5	x 4 =	20	
Herb Stratum		25	V	D. C	UPL species		x 5 =	0	
1. Festuca perennis		25	Yes	FAC ON	Column Totals:	60	(A)	135	(B)
2.Navarretia leucocephala 3.Deschampsia danthonioides		15	Yes Yes	OBL FACW	Prevalence I	ndex = B	/A =	2.25	
4.Bromus hordeaceus		5	Yes	FACU	Hydrophytic Veg	etation In	dicators:		
5.Lasthenia fremontii		5	Yes	OBL	➤ Dominance Te				
6.					× Prevalence In	dex is ≤3.	01		
7.					Morphological	Adaptatio	ons ¹ (Provide	supporti	ng
8.							n a separate		,
	Total Cover:	60 %			Problematic H	lydrophyti	c Vegetation'	(Explain	1)
Woody Vine Stratum		70			¹ Indicators of hydr	io coil on	d watland by	drology	munt
1. 2.					be present.	ic son an	u welland ny	arology r	nust
2	Total Cover:	%			Hydrophytic				
	0 % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W02}$

Profile Des	scription: (Describe t	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-5	2.5 YR 3/3	98 2.5	YR 3/6	2	C	PL	Gravelly clay loam				
¹ Type: C=0	Concentration, D=Depl	etion, RM=Red	duced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applicable	to all I DDs i	inlass athorwise	noted)			Indicators for E	Problematic Hydric Soils: 3			
Histoso		s to all Littes, t	Sandy Redo					(A9) (LRR C)			
	Epipedon (A2)		Stripped Ma	, ,				k (A10) (LRR B)			
	Histic (A3)		Loamy Muc	. ,				Vertic (F18)			
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matri	x (F2)			nt Material (TF2)			
Stratific	ed Layers (A5) (LRR C)	Depleted M	atrix (F3))		Other (Exp	olain in Remarks)			
	Muck (A9) (LRR D)		Redox Darl		. ,						
	ed Below Dark Surface	(A11)	Depleted D		` ,		3 Indicators of h	nydrophytic vegetation and			
	Dark Surface (A12)		Redox Dep		(F8)			drology must be present.			
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	IS (F9)			unless distributed or problematic				
	Layer (if present):							·			
Type:	Eayer (ii present).										
Depth (i	nchos):		_				Hydric Soil Pre	esent? Yes No			
· ` `							Hydric Soil Fre	sent? res NO			
Remarks:											
HYDROL											
Wetland H	ydrology Indicators:										
	dicators (minimum of or	ne required; ch	eck all that appl	y)				y Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)			
High W	Vater Table (A2)		Biotic Cru				Sedir	ment Deposits (B2) (Riverine)			
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide C	Odor (C1)		Drain	age Patterns (B10)			
Sedimo	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosph	eres along	Living Roo		Season Water Table (C2)			
Drift Do	eposits (B3) (Nonriver i	ine)	Presence	of Reduc	ed Iron (C	4)	Crayt	fish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Satur	ration Visible on Aerial Imagery (C9)			
Inunda	ition Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)			ow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		× FAC-	Neutral Test (D5)			
Field Obse			_								
		es No (Depth (in	ches):							
Water Tabl	e Present? Ye	es O No (Depth (in	ches):							
Saturation (includes ca	Present? Ye apillary fringe)	es O No (Depth (in	ches):		Wetl	land Hydrology Pr	resent? Yes No			
	ecorded Data (stream	gauge, monito	ring well, aerial	photos, p	revious ins						
Remarks:											

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point: ${ m V}$	V03	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	 e		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724387		Long:-121.77601	7	 Datu	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No 🔘	
			oblematic?		eeded, explain any a				
SUMMARY OF FINDINGS - Atta				`	, ,		,	atures et	C
Comment of Findings - Au	·		Jampii	ng point i	ocations, transc	.013, 1111	portant re		<u> </u>
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample			0		
Wetland Hydrology Present? Remarks:	Yes No		wi	thin a Wetla	nd? Yes	•	No (
VEGETATION									
		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina			(4)	
1				_	That Are OBL, FA	CW, or FA	C: 3	(A)	
2				_	Total Number of D		2	(D)	
4.			-		Species Across Al		3	(B)	
T	Total Cover:	%			Percent of Domina That Are OBL, FA).0 % (A/B	٥١
Sapling/Shrub Stratum	rotal cover.	70						7.0 % (A/B	')
1					Prevalence Index				
2					Total % Cove		Multipl		
3					OBL species	10	x 1 =	10 30	
4				_	FACW species FAC species	15 50	x 2 = x 3 =	150	
5	Total Cover:	%		_	FACU species	10	x 4 =	40	
Herb Stratum	Total Cover.	%0			UPL species	10	x 5 =	0	
1.Festuca perennis		30	Yes	FAC	Column Totals:	85	(A)		B)
2. Hordeum marinum gussoneanum		20	Yes	FAC			, ,		-,
3. Deschampsia danthonioides		15	Yes	FACW	Prevalence I			2.71	
4. Navarretia leucocephala		10	No	OBL	Hydrophytic Veg				
5.Bromus hordeaceus		10	No	FACU	X Dominance To				
6					X Prevalence In Morphological			cupporting	
7					data in Rei	marks or c	on a separate	sheet)	
8	Total Cover:	0.5		_	Problematic H	lydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover:	85 %							
1					¹ Indicators of hydi	ric soil and	d wetland hy	drology mus	st
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 15	% % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes 💿	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W03}$

Profile Des	scription: (Describe	to the depth nee	ded to docun	nent the	indicator	or confirn	n the absence of in	dicators.)
Depth (inches)	Matrix Color (moist)	% Cole		Feature	es Type ¹	Loc ²	Texture	Remarks
(inches)	Color (moist)		or (moist)					Remarks
0-6	2.5 YR 2.5/3	95 2.5 YI	X 4/3	5	<u>C</u>	<u>PL</u>	Gravelly clay loam _	
	_							
	_							
1- 0							21	andian Di Dana Linian M Matrix
Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	=Cover	ed or Coate	ed Sand Gi	rains Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	le to all I RRs unl	ass athorwise	noted)			Indicators for Pr	oblematic Hydric Soils: 3
Histose		le to all ERRS, ulli	Sandy Redox					(A9) (LRR C)
	Epipedon (A2)		Stripped Ma	` '				(A10) (LRR B)
	Histic (A3)		Loamy Muck	ky Miner	al (F1)		Reduced Ve	ertic (F18)
	gen Sulfide (A4)		Loamy Gley					Material (TF2)
	ed Layers (A5) (LRR C		Depleted Ma				Other (Expla	ain in Remarks)
	/luck (A9) (LRR D) ed Below Dark Surface	_ (\(\) (\)	Redox Dark Depleted Da		` '			
· — ·	ed веюж вагк запасе Dark Surface (А12)	e (ATT)	Redox Depr				3 Indicators of hy	drophytic vegetation and
	Mucky Mineral (S1)	×	Vernal Pools		(1 0)		wetland hydr	ology must be present.
	Gleyed Matrix (S4)		J	` ,			unless distrib	outed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Pres	ent? Yes No
Remarks:								
HYDROL	nev							
	ydrology Indicators: dicators (minimum of o	no roquirod: obco	k all that apply	٨			Secondary	Indicators (2 or more required)
	e Water (A1)	ne required, chec						Marks (B1) (Riverine)
	Vater Table (A2)	L	Salt Crust					ent Deposits (B2) (Riverine)
l	tion (A3)	L	Biotic Crus Aquatic Inv		as (R13)			eposits (B3) (Riverine)
	Marks (B1) (Nonriveri	ine)	Hydrogen		` ,			ge Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized R		, ,	Livina Roc	=	ason Water Table (C2)
	eposits (B3) (Nonriver	, E	Presence of		_	_	· · · =	h Burrows (C8)
1 ==	e Soil Cracks (B6)	Ĺ	Recent Iron		`	,		tion Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface	(C7)		Shallov	w Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		∑ FAC-N	eutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es No 💿	Depth (inc	ches):				
Water Tabl	e Present? You	es O No 💿	Depth (inc	hes):				
Saturation		es O No 💿	Depth (inc	hes):		N/o4l	and Hudnalami Dra	
	apillary fringe) ecorded Data (stream	gauge monitorin	n well aerial n	hotos r	revious ins		and Hydrology Pre	sent? Yes (•) No (
DOSCING N	Sooraca Data (Stiedili	gaage, monitorin	y won, achai p	,,,οιουο, μ	A CVIOUS IIIS	ροσιστίο),	n avaliable.	
Remarks:								
ixciliains.								

Section Township, Range Section Township, Range Sa2, T 22N, R 2E	Project/Site: The Valley's Edge			City/Cour	ty:Butte		San	npling Date: 1	1/11/14	
Local relief (concave, convex, none):concave	Applicant/Owner: B. Brouhard					State:CA	San	npling Point:	V04	
Lat 39.724.387 Long-121.776017 Datum: WGS 84	Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E	_		
New Committed New Committe	Landform (hillslope, terrace, etc.): terrace	e		Local rel	ef (concave,	convex, none):conc	ave	Slo	pe (%):4	
re viersetic / hydrologic conditions on the site typical for this time of year? Yes No (iff no, explain in Remarks.) **Previous of the vierse of the vierse of year of the vierse of year of the vierse of the v	Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	7	 Datu	m:WGS	84
re viersetic / hydrologic conditions on the site typical for this time of year? Yes No (iff no, explain in Remarks.) **Previous of the vierse of the vierse of year of the vierse of year of the vierse of the v			pes			NWI cla	ssification	 :Vernal poo	 ol	
re Vegetation Soil or Hydrology significantly disturbed? Are 'Normal Circumstances' present? Yes • No Per Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) #### Common Commo	·		•	ear? Yes	• No (
Tree Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) ### Cover Species ###								,	No (\bigcirc
Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sistemap showing sampling point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Yes No Sistemap showing sampling point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Yes No Sistemap showing sampling point locations, transects, important features, etc. Sampling Should Stratum							·			
Hydrophytic Vegetation Present? Yes No No Sutthin a Wetland? Yes No No Sutthin a Wetland? No Species? No Species? Status No Species? No Species? Status Nomber of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Cover: % Septing/Shrub Stratum 1. Total Cover: % Total Cover: % Herb Stratum Noody Vine Stratum Total Cover: % Herb Stratum Tot					`	, , ,		,	aturos	otc
Is the Sampled Area within a Wetland? Yes No No	SUMMART OF FINDINGS - ALL	acii site iliap si	ilowing	Sampin	ng ponit it	ocations, transe		portant le		eic.
Methand Hydrology Present? Yes	Hydrophytic Vegetation Present?		_							
Percent of Dominant Species That Are OBL, FACW, or FAC: 100,0 % (A/B)		_			_					
Absolute Dominant Indicator Species? Status Sta		Yes (• No		wi	thin a Wetla	nd? Yes	•	No (
Absolute Cover Species Status Specie	Tromano.									
Absolute Continue Absolute Continue Absolute Continue										
Absolute Continue Absolute Continue Absolute Continue										
	VEGETATION									
1.	T 0: : ::::::::::::::::::::::::::::::::					Dominance Test	workshee	et:		
2. 3.	,	_	% Cover	Species	Status_					(A)
Sapling/Shrub Stratum						I hat Are OBL, FA	CVV, or FA	C: 2	(,	A)
Sapling/Shrub Stratum								2		(D)
Total Cover:	[] 			-	_	Species Across Ai	i Siraia.	2		D)
Prevalence Index worksheet: Total % Cover of:	Ţ	Total Cover:	0/0						0.00	Λ/D)
Total % Cover of: Multiply by:	Sapling/Shrub Stratum	rotal Gover.	70						1.0 % (/	н/Б)
OBL species 5	1					_				
FACW species 10 x 2 = 20	2					_				
FAC species 55 x 3 = 165 FACU species 10 x 4 = 40 UPL species x 5 = 0 Column Totals: 80 (A) 230 (B) Prevalence Index = B/A = 2.88 Hydrophytic Vegetation Indicators: **Dominance Test is >50% **Separate Index in Remarks or on a separate sheet) **Dominance Test is >50% **Separate Index is \$3.0¹ **Dominance Test is \$3.0¹ **Dominance Test is \$4.0¹ **Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) **Dominance Test is \$5.0% **Separate Index is \$3.0¹ **Indicators of hydric soil and wetland hydrology must be present.** **Indicators of hydric soil and wetland hydrology must be present.** **Hydrophytic Vegetation Present?** **Prevalence Index is \$3.0¹ **Indicators of hydric soil and wetland hydrology must be present.** **Hydrophytic Vegetation Present?** **Yes **No** **No**					_	_	-			
Total Cover: % Herb Stratum 1. Festuca perennis 2. Hordeum marinum gussoneanum 20 Yes FAC 3. Deschampsia danthonioides 4. Bromus hordeaceus 5. Navarretia leucocephala 6. 7. 8. Total Cover: 80 % Total Cover: 80 % Total Cover: 80 % Bare Ground in Herb Stratum 20 % Cover of Biotic Crust % FACU UPL species 10 x 4 = 40 UPL species x 5 = 0 Column Totals: 80 (A) 230 (B) Prevalence Index = B/A = 2.88 Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Hydrophytic Vegetation 1 Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Vegetation Present? Yes No ○					-	_ _				
Herb Stratum 1. Festuca perennis 2. Hordeum marinum gussoneanum 20 Yes FAC 3. Deschampsia danthonioides 4. Bromus hordeaceus 5. Navarretia leucocephala 6. 7. 8. Total Cover: 80 % Woody Vine Stratum 1. 2. Total Cover: 9% Bare Ground in Herb Stratum 20 Yes FAC FAC Column Totals: 80 (A) 230 (B) Prevalence Index = B/A = 2.88 Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	5	Total Cover:	0/-			- '				
1. Festuca perennis 2. Hordeum marinum gussoneanum 20 Yes FAC 3. Deschampsia danthonioides 10 No FACW 4. Bromus hordeaceus 10 No FACU 5. Navarretia leucocephala 6. 7. 8. Total Cover: 80 % Woody Vine Stratum 1. 2. Total Cover: % Bare Ground in Herb Stratum 20 Yes FAC Prevalence Index = B/A = 2.88 Hydrophytic Vegetation Indicators: ★ Dominance Test is >50% ★ Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) **Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation **Indicators of hydric soil and wetland hydrology must be present. **Hydrophytic Vegetation Present? Yes ● No ○	Herb Stratum	Total Cover.	%0				10			
2. Hordeum marinum gussoneanum 3. Deschampsia danthonioides 4. Bromus hordeaceus 5. Navarretia leucocephala 6. 7. 8. Woody Vine Stratum 1. 2. Woody Vine Stratum 1. 2. Total Cover: % Bare Ground in Herb Stratum 20 % Cover of Biotic Crust % We as a ground in Herb Stratum 20 % Cover of Biotic Crust % Prevalence Index = B/A = 2.88 Hydrophytic Vegetation Indicators: X. Dominance Test is >50% X. Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes No No ○	1.Festuca perennis		35	Yes	FAC		80			(B)
4. Bromus hordeaceus 5. No obl. 7. Woody Vine Stratum 1. Total Cover: % % Bare Ground in Herb Stratum 20 % % Cover of Biotic Crust % Hydrophytic Vegetation Indicators: X. Dominance Test is >50% X. Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1. Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes No No	2. Hordeum marinum gussoneanum	!	20	Yes	FAC		00	(7.1)		(-)
Solution	3. Deschampsia danthonioides		10	No	FACW				2.88	
6. 7. 8. Total Cover: 80 % Woody Vine Stratum 1. 2. Total Cover: % Bare Ground in Herb Stratum 20 % % Cover of Biotic Crust % Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes ♠ No ♠	4.Bromus hordeaceus		10		FACU					
7. 8. Total Cover: 80 % Woody Vine Stratum 1. 2. Total Cover: % Bare Ground in Herb Stratum 7. Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1. 1. 1. 1. Total Cover: % Warphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) I problematic Hydrophytic Vegetation Present: Hydrophytic Vegetation Present? Yes No	5.Navarretia leucocephala		5	No	OBL					
8.	6								ou no no estim	. ~
Total Cover: 80 % Woody Vine Stratum 1.						data in Re	marks or c	ons (Provide on a separate	supporting sheet)	ig
Woody Vine Stratum 1.	8				_	Problematic H	lydrophytic	c Vegetation ¹	(Explain))
1.	Woody Vine Stratum	Total Cover:	80 %							
2. Total Cover: % Hydrophytic Vegetation Present? Yes • No •							ric soil an	d wetland hy	drology m	nust
% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust % Vegetation Present? Yes • No C	2					be present.				
% Bare Ground in Herb Stratum % Cover of Biotic Crust % Present? Yes • No C		Total Cover:	%							
	% Bare Ground in Herb Stratum 20) % Cover	of Biotic C	Crust	%		Yes •	No C)	
	Remarks:					_				
· ·										
l la companya di managantan	I									

SOIL Sampling Point: $\underline{W04}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	ment the i	indicator	or confirm	n the absence of	indicators.)			
Depth	Matrix			x Features			_				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-4	2.5 YR 3/3						Gravelly clay loam				
	2.5 YR 3/6	98									
	_										
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
								3			
Hydric Soil Histose	Indicators: (Applicable	e to all LRRs, uni	ess otherwise Sandy Redo					Problematic Hydric Soils: ³ k (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)	_	Sandy Redo Stripped Ma	` '				k (A10) (LRR B)			
	Histic (A3)	<u> </u>	Loamy Muc	. ,	ıl (F1)			Vertic (F18)			
	gen Sulfide (A4)	-			nt Material (TF2)						
	ed Layers (A5) (LRR C	;)			plain in Remarks)						
1 cm N	Muck (A9) (LRR D)		Redox Dark	Surface	(F6)		_				
ı Ш ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of I	nydrophytic vegetation and			
	Dark Surface (A12)		Redox Dep	,	F8)			drology must be present.			
	Mucky Mineral (S1)	L	Vernal Poo	ls (F9)			unless distributed or problematic				
	Gleyed Matrix (S4) Layer (if present):						1				
Type:	e Layer (ii present).										
Depth (i	inches):						Hydric Soil Pre	esent? Yes No			
Remarks:							Hydric Soil Pre	esent? res • No			
Remarks.											
HYDROL	OGY										
Wetland H	ydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; chec	k all that appl	y)				y Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)			
High W	Vater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)			
Satura	tion (A3)		Aquatic In	vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drair	nage Patterns (B10)			
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized F	Rhizosphe	res along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	l)	Cray	fish Burrows (C8)			
	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)			
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface ((C7)		Shall	ow Aquitard (D3)			
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC-	-Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):							
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):							
Saturation		es O No 💿	Depth (in	ches):		Wot	and Hydrology P	resent? Yes No			
	apillary fringe) Secorded Data (stream	gauge, monitorin	g well. aerial	photos pr	evious ins		land Hydrology Point if available:	resent? Yes No			
20002011		gaage,ee	g tron, aonai	p	01.0000	p = = = = = = = = = = = = = = = = = = =	avallabio.				
Remarks:											
. tomanto.											

Project/Site: The Valley's Edge			City/Cour	ty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W05		
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace			Local rel	ef (concave,	convex, none):none		Slop	pe (%):1	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724860		Long:-121.77768	9 Datum:WGS 84			
Soil Map Unit Name: Redtough-Redsw		t slopes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	<u> </u>		ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (\bigcirc
			oblematic?		eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta				`	, , ,		,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	ilowing	Sampin	ing point it	ocations, transe	cis, iiii	Jortant 1ea		CIC.
Hydrophytic Vegetation Present?	_								
Hydric Soil Present?	_			the Sampled					
Wetland Hydrology Present? Remarks:	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔾		
Tromane.									
VECETATION									
VEGETATION		Absolute	Dominon	t Indicator	Dominance Test	workshoo	.4.		
Tree Stratum (Use scientific names.)			Species		Number of Domina				
1.					That Are OBL, FA			((A)
2.					- - Total Number of D	ominant			
3.					Species Across Al		2	((B)
4					Percent of Domina	int Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0.0%	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	r of:	Multiply	y by:	
3.					OBL species	5	x 1 =	5	
4.					FACW species	5	x 2 =	10	
5.					FAC species	55	x 3 =	165	
Hart Otratura	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		40	Yes	FAC	UPL species		x 5 =	0	
Festuca perennis Hordeum marinum gussoneanum		15	Yes	FAC FAC	Column Totals:	75	(A)	220	(B)
3. Bromus hordeaceous		10	No	FACU	Prevalence I	ndex = B/	/A =	2.93	
4. Juncus bufonius		5	No	FACW	Hydrophytic Vege	etation In	dicators:		
5.Navarretia leucocephala		5	No	OBL	X Dominance Te	est is >50%	%		
6.					× Prevalence In	dex is ≤3.0	01		
7.			-		Morphological	Adaptatio	ons ¹ (Provide	supportin	ng
8.					- Problematic H		on a separate		١
Manda Vina Chrotuna	Total Cover:	75 %			- Toblematic H	iyuropriyiid	vegetation	(Explain)	,
Woody Vine Stratum					¹ Indicators of hydr	ic soil and	d wetland hvo	drology n	nust
1. 2.					be present.		a	gy	
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 25	5 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:	<u> </u>								

Profile Des	cription: (Describe	to the depth n	eded to docun	nent the	indicator	or confirn	n the absence of indicate	ors.)
Depth	Matrix			C Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	2.5 YR 3/3	97 2.5	YR 3/6	3	C	<u>M</u>	Gravelly clay loam	
	-							
	-							
	-							
	-							
¹ Type: C=C	Concentration, D=Depl	letion, RM=Red	uced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ² Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, u	nless otherwise	noted.)			Indicators for Problem	atic Hydric Soils: 3
Histoso	ol (A1)		Sandy Redox	x (S5)			1 cm Muck (A9) (I	
Histic E	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck (A10)	(LRR B)
	listic (A3)		Loamy Muc				Reduced Vertic (F	•
	en Sulfide (A4)		Loamy Gley				Red Parent Mater	,
	ed Layers (A5) (LRR C	>)	Depleted Ma	` '			Other (Explain in	Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	. (044)	Redox Dark		. ,			
· — ·	ed Below Dark Surface Park Surface (A12)	e (A11)	Depleted Da Redox Depr		. ,		3 Indicators of hydroph	ytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		(10)		wetland hydrology	must be present.
	Gleyed Matrix (S4)		voinai i ooi	0 (1 0)			unless distributed	or problematic
	Layer (if present):							
Type:	, , ,							
Depth (ir	nches):		_				Hydric Soil Present?	Yes No
Remarks:							Tiyuno con i resent.	100 (0) 110 ()
rtemants.								
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
	icators (minimum of o	ne required: ch	eck all that annly	v)			Secondary Indica	tors (2 or more required)
	e Water (A1)	no required, on	Salt Crust					s (B1) (Riverine)
=	ater Table (A2)		Biotic Crus	` '				eposits (B2) (Riverine)
	ion (A3)		Aquatic Inv		oc (B13)			s (B3) (Riverine)
	Marks (B1) (Nonriveri	no)	Hydrogen		` ,			, , ,
	ent Deposits (B2) (Nor		Oxidized R		` ,	Living Roc		Water Table (C2)
	eposits (B3) (Nonriver	,	Presence		_	•	Crayfish Bur	
	e Soil Cracks (B6)	iiic)	Recent Iro		`	,		isible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck			vea oons (Shallow Aqu	
	Stained Leaves (B9)	magery (Br)	Other (Exp		` '		FAC-Neutral	,
Field Obse			Other (Exp	naiii iii ix	Ciriarks)		1710 Hodilal	1001 (20)
		es No (Depth (inc	chec).				
			_	· —				
Water Table		es No (· · ·				
Saturation F	Present? You	es O No (Depth (inc	ches):		Wetl	and Hydrology Present?	Yes No
	ecorded Data (stream	gauge, monito	ing well, aerial p	ohotos, p	revious ins			
Remarks:								

Project/Site: The Valley's Edge		City/Cour	nty:Butte		Sam	pling Date: 11	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W06		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	lief (concave,	convex, none):slight	tly concar	ve Slop	e (%):3.5	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	724860		Long:-121.77768	9	 Datun	n:WGS 84	
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	ssification:	—— Vernal pool		
Are climatic / hydrologic conditions on th			ear? Yes	No (-		
			disturbed		"Normal Circumstand			No 🔘	
			oblematic		eeded, explain any ar				
SUMMARY OF FINDINGS - Att							,	tures, etc.	
	·			9 po		,p			
Hydrophytic Vegetation Present? Hydric Soil Present?	_			the Commission	J A				
Wetland Hydrology Present?	_			the Sampled ithin a Wetla			No (
Remarks:	163 (110		l W	itnin a wetia	na? res		NO U		
VEGETATION									
	, ,	Absolute	Dominar	nt Indicator	Dominance Test	worksheet	::		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina				
1			-		That Are OBL, FA	CW, or FA	C: 3	(A)	
3					Total Number of D Species Across All		3	(B)	
4					Percent of Domina	ınt Species	;		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAG			.0 % (A/B)	
1.					Prevalence Index	workshee	et:		
2.			-		Total % Cover	r of:	Multiply	by:	
3.					OBL species	30	x 1 =	30	
4.					FACW species	45	x 2 =	90	
5.					FAC species		x 3 =	0	
Liante Christian	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum		20	Yes	ODI	UPL species		x 5 =	0	
Lasthenia fremontii Deschampsia danthonioides		20	Yes	OBL FACW	Column Totals:	75	(A)	120 (B)	
3. Festuca perennis		15	Yes	FACW	Prevalence I	ndex = B//	A =	1.60	
4.Bromus hordeaceus		10	No	FACW	Hydrophytic Vege	etation Inc	licators:		
5.Navarretia leucocephala		10	No	OBL	X Dominance Te	est is >50%	, 0		
6.					× Prevalence In	dex is ≤3.0	1		
7.					Morphological				
8.					- Problematic H		n a separate s	*	
Manda Vina Chatana	Total Cover:	75 %			- Troblematic m	iyuropriyiic	vegetation	(Explairi)	
Woody Vine Stratum 1.					¹ Indicators of hydr be present.	ric soil and	wetland hyd	Irology must	
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
	5 % % Cover	of Biotic C	Crust	<u>%</u>	Present?	Yes •	No 🔘		
Remarks:									

Profile Des	scription: (Describe t	o the depth ne	eded to docun	nent the	indicator	or confirn	n the absence of ind	licators.)
Depth (inches)	Matrix			Feature	es Type ¹	Loc ²	Toyturo	Domorko
(inches)	Color (moist)		olor (moist)	%				Remarks
0-5	5 YR 3/2	<u>98</u> <u>2.5 Y</u>	TR 4/8		<u>C</u>	<u>PL</u>	Gravelly clay loam	
1								
'Type: C=0	Concentration, D=Depl	etion, RM=Redu	uced Matrix. CS	S=Covere	ed or Coate	ed Sand Gi	rains ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I PRs ur	less otherwise	noted \			Indicators for Pro	blematic Hydric Soils: 3
Histoso		e to all Lixixs, ul	Sandy Redox				1 cm Muck (
	Epipedon (A2)	F	Stripped Ma	` '				A10) (LRR B)
Black H	Histic (A3)		Loamy Muc	ky Miner	al (F1)		Reduced Ve	rtic (F18)
	gen Sulfide (A4)		Loamy Gley					Material (TF2)
	ed Layers (A5) (LRR C	_	Depleted Ma				Other (Expla	in in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	\(\Lambda 11\)	Redox Dark Depleted Da		. ,			
. — .	ed Below Dark Surface Dark Surface (A12)	; (A11) [Redox Depr		, ,		3 Indicators of hyd	rophytic vegetation and
	Mucky Mineral (S1)	Ľ	Vernal Pool		(1 0)		wetland hydro	ology must be present.
	Gleyed Matrix (S4)	L		()			unless distrib	uted or problematic
Restrictive	Layer (if present):							
Type:			_					
Depth (ii	nches):						Hydric Soil Prese	ent? Yes No
Remarks:								
HYDROLO	nev .							
	ydrology Indicators:		المصلحة المساد	۸			Secondary I	ndicators (2 or more required)
	licators (minimum of or	ne requirea; cne						Marks (B1) (Riverine)
l <u>—</u>	e Water (A1)		Salt Crust					ent Deposits (B2) (Riverine)
	/ater Table (A2) tion (A3)		Biotic Crus Aguatic Inv		oc (B13)			posits (B3) (Riverine)
	Marks (B1) (Nonriveri i	ne)	Hydrogen		` '			je Patterns (B10)
l 🗀	ent Deposits (B2) (Non	•	Oxidized R		, ,	Living Roc	=	ason Water Table (C2)
=	eposits (B3) (Nonriver	,	Presence		_	_	··· () <u>·</u>	n Burrows (C8)
	e Soil Cracks (B6)	,	Recent Iro		`	,		on Visible on Aerial Imagery (C9)
==	tion Visible on Aerial Ir	magery (B7)	Thin Muck			,	· <u>—</u>	Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-Ne	eutral Test (D5)
Field Obse	ervations:		<u> </u>					
Surface Wa	ater Present? Ye	es 🔘 No 📵	Depth (inc	ches):				
Water Table	e Present? Ye	es No 📵	Depth (inc	ches):				
Saturation I	1.5	es No 🖲	Depth (inc	ches):				
	apillary fringe)	aquaq monitori	ng wall parial r	hotoo r	rovious inc		and Hydrology Pres	sent? Yes ● No ○
Describe R	ecorded Data (stream	yauy e , monitori	ng wen, aenal [ποιος, β	nevious ins	speciions),	ıı avallable.	
Domosto:								
Remarks:								

Project/Site: The Valley's Edge		City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W07		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	lief (concave,	convex, none):sligh	tly conca	ve Slop	pe (%):3	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	724860		Long:-121.77768	9	 Datur	n:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	Vernal pool	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	d? Are	"Normal Circumstand	ces" preser	nt? Yes •	No 🔘	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic	? (If ne	eeded, explain any a	nswers in F	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	ortant fea	atures, etc.	
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?			Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VECETATION									
VEGETATION		\ baalista	Dominor	at Indicator	Dominance Test	aukahaa	4.		
<u>Tree Stratum</u> (Use scientific names.)		Absolute <u>% Cover</u>		nt Indicator ? Status	Number of Domina				
1.					That Are OBL, FA			(A)	
2.					- - Total Number of D	ominant			
3					Species Across Al		3	(B)	
4					Percent of Domina	ant Species	3		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 % (A/B)	
1.					Prevalence Index	workshee	et:		
2.			-		Total % Cove	r of:	Multiply	/ by:	
3.					OBL species	30	x 1 =	30	
4.					FACW species	45	x 2 =	90	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species		x 4 =	0	
1.Lasthenia fremontii		20	Yes	OBL	UPL species		x 5 =	0	
2. Deschampsia danthonioides		20	Yes	FACW	Column Totals:	75	(A)	120 (B)	
3. Festuca perennis		15	Yes	FACW	Prevalence I	ndex = B/	A =	1.60	
4.Bromus hordeaceus		10	No	FACW	Hydrophytic Vege	etation Inc	dicators:		
5.Navarretia leucocephala		10	No	OBL	X Dominance Te				
6.					× Prevalence In				
7					Morphological		ns' (Provide : n a separate		
8					- Problematic H			•	
Woody Vine Stratum	Total Cover:	75 %					Ü	, ,	
1					¹ Indicators of hydr	ric soil and	wetland hyd	drology must	
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum25	5 % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes •	No 🔘		
Remarks:					1				

SOIL Sampling Point: $\underline{W07}$

Profile De	scription: (Describe t	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		color (moist)	%_	Type ¹	Loc ²	Texture	Remarks Remarks			
0-5	5 YR 3/2	98 2.5	YR 4/8	2	C	PL	Gravelly clay loam				
	-										
¹ Type: C=	Concentration, D=Deple	etion, RM=Red	duced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.			
	, ,	,									
Hydric Soi	Indicators: (Applicable	e to all LRRs, ι	ınless otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3			
_	ol (A1)		Sandy Redo	` '				(A9) (LRR C)			
	Epipedon (A2)		Stripped M	, ,				(A10) (LRR B)			
	Histic (A3)		Loamy Mud					/ertic (F18)			
	gen Sulfide (A4)	`	Loamy Gle	•	. ,			nt Material (TF2)			
	ied Layers (A5) (LRR C Muck (A9) (LRR D))	Depleted M Redox Darl	, ,			U Other (Exp	olain in Remarks)			
	ted Below Dark Surface	(A11)	Depleted D		. ,						
	Dark Surface (A12)	(2011)	Redox Dep		` ,			nydrophytic vegetation and			
	Mucky Mineral (S1)		Vernal Poo		(. 0)		wetland hydrology must be present.				
	Gleyed Matrix (S4)						unless distributed or problematic				
Restrictive	e Layer (if present):										
Type:											
Depth (inches):		_				Hydric Soil Pre	esent? Yes No			
Remarks:											
HYDROL											
	lydrology Indicators:										
	dicators (minimum of or	ne required; ch						y Indicators (2 or more required)			
Surfac	ce Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)			
<u> </u>	Vater Table (A2)		Biotic Cru					ment Deposits (B2) (Riverine)			
l 🖳	ation (A3)		Aquatic In					Deposits (B3) (Riverine)			
l 🗀	Marks (B1) (Nonriveri	,	Hydrogen		` '		= -	age Patterns (B10)			
=	ent Deposits (B2) (Non				eres along	-		Season Water Table (C2)			
==	eposits (B3) (Nonriver i	ine)			ed Iron (C	,		ish Burrows (C8)			
=	ce Soil Cracks (B6)		_		tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)			
=	ation Visible on Aerial In	nagery (B7)	Thin Muck		` '			ow Aquitard (D3)			
	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		× FAC-	Neutral Test (D5)			
Field Obs											
		es No (
Water Tab	le Present? Ye	s No (Depth (in	ches):							
Saturation		es O No (Depth (in	ches):		Wetl	land Hydrology Pr	resent? Yes No			
	capillary fringe) Recorded Data (stream	gauge, monito	ring well, aerial	photos, r	revious ins						
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	J J ,c	J, 201141			, , ,					
Remarks:											

Project/Site: The Valley's Edge			City/C	ounty:Butte	Sampling Date: 11/11/14					
Applicant/Owner: B. Brouhard					Sta	ate:CA	San	npling Point:	W08	
Investigator(s): D. Machek, E. Gregg			Sectio	n, Township, Ra	ange: <u>S</u> 32,	T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local	relief (concave,	convex, no	one):sligh	ntly conca	ive Sle	ope (%):3	
Subregion (LRR):C - Mediterranean C	California	Lat:39.	724860	0	Long:-1	21.77768	39	Dat	um:WGS	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent sl	lopes				NWI cla	assification	:Vernal po	ol	
Are climatic / hydrologic conditions on th	e site typical for thi	s time of ye	ear? Y	es No ((If	– no, explai	n in Remai	rks.)		
Are Vegetation Soil or Hy	ydrology s	ignificantly	disturk	ped? Are	"Normal C	ircumstan	ces" prese	nt? Yes	No	\bigcirc
Are Vegetation Soil or Hy	ydrology r	naturally pr	oblema	itic? (If n	eeded, exp	olain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map	showing	sam	pling point l	ocations	s, transe	ects, im	portant fe	atures,	, etc.
Hydrophytic Vegetation Present?	Yes N	o 🔘								
Hydric Soil Present?	Yes N	0 🔘		Is the Sample	d Area					
Wetland Hydrology Present? Remarks:	Yes N	0 🔘		within a Wetla	nd?	Yes	•	No 🔘		
VEGETATION										
Tree Stratum (Use scientific names.) 1.		Absolute % Cover		nant Indicator ies? Status	Number	of Domin	workshee ant Specie CW, or FA	s	2	(A)
2					I	umber of [Across A			2	(B)
4. Sapling/Shrub Stratum	Total Cove	r: %					ant Specie CW, or FA		0.0%	(A/B)
1.					Prevale	nce Inde	x workshe	et:		
2.					Tot	al % Cove	er of:	Multip	oly by:	_
3.					OBL sp	ecies	15	x 1 =	15	
4.					FACW	•	65	x 2 =	130	
5					FAC sp			x 3 =	0	
Herb Stratum	Total Cove	r: %			FACU s	•		x 4 =	0	
1.Lasthenia fremontii		10	No	OBL	UPL spe		20	x 5 =	0	(D)
2.Deschampsia danthonioides		20	Yes	FACW	Column	l otals:	80	(A)	145	(B)
3. Festuca perennis		35	Yes	FACW	- Pr	evalence	Index = B	/A =	1.81	
4.Bromus hordeaceus		10	No	FACW	Hydrop	hytic Veg	etation In	dicators:		
5.Navarretia leucocephala		5	No	OBL			est is >50°			
6.							ndex is ≤3.			
7								ons¹ (Providen on a separat		ng
8								c Vegetation	,	1)
Woody Vine Stratum	Total Cove	r: 80 %					, , ,	Ü	` '	,
1					¹ Indicate be pres		lric soil an	d wetland h	ydrology r	must
Z	Total Cove	r: %			Hydrop	hytic				
% Bare Ground in Herb Stratum2		r of Biotic (%_	Vegetat Present		Yes	No (\supset	
Remarks:										

SOIL Sampling Point: $\underline{W08}$

Profile De	scription: (Describe to	o the depth n	eeded to docui	ment the	indicator	or confirm	n the absence of i	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		Color (moist)	%_	Type ¹	_Loc ²	Texture	Remarks			
0-5	5 YR 3/2	95 2.5	YR 4/8	5	C	<u>PL</u>	Gravelly clay loam				
¹ Type: C=	Concentration, D=Deple	etion, RM=Re	duced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	I Indicators: (Applicable	e to all I RRs i	ınless otherwise	noted)			Indicators for F	Problematic Hydric Soils: 3			
	ol (A1)	o to un Entre, t	Sandy Redo					(A9) (LRR C)			
_	Epipedon (A2)		Stripped Ma	, ,				k (A10) (LRR B)			
Black	Histic (A3)		Loamy Muc	ky Miner	al (F1)		Reduced \	Vertic (F18)			
Hydro	gen Sulfide (A4)		Loamy Gley	yed Matri	x (F2)			nt Material (TF2)			
	ied Layers (A5) (LRR C)	Depleted M	,	,		Other (Exp	olain in Remarks)			
	Muck (A9) (LRR D)		Redox Darl		. ,						
	ted Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and			
	Dark Surface (A12)		Redox Dep		(F8)			drology must be present.			
	Mucky Mineral (S1) Gleyed Matrix (S4)		∨ Vernal Pool ✓ V	is (F9)			unless distributed or problematic				
	e Layer (if present):										
Type:	o _u, o. (p. ooo).										
'' —	inches):		_				Hydric Soil Pre	esent? Yes No			
Remarks:							Try dire con Tre				
rtomanto.											
HYDROL	OGY										
Wetland H	lydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; ch	eck all that appl	y)				y Indicators (2 or more required)			
Surfac	ce Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)			
High V	Vater Table (A2)		Biotic Crus				Sedi	ment Deposits (B2) (Riverine)			
Satura	ation (A3)		Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonrivering	ne)	Hydrogen	Sulfide (Odor (C1)			age Patterns (B10)			
=	ent Deposits (B2) (Non				eres along	-		Season Water Table (C2)			
l <u>=</u>	eposits (B3) (Nonriveri	ine)	_		ced Iron (C	,		fish Burrows (C8)			
=	ce Soil Cracks (B6)				tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)			
=	ation Visible on Aerial In	nagery (B7)	Thin Muck		` '			ow Aquitard (D3)			
	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		× FAC-	Neutral Test (D5)			
Field Obse			_								
		es No (
Water Tab	le Present? Ye	es No (Depth (in	ches):							
Saturation (includes c	Present? Ye apillary fringe)	es O No	Depth (in	ches):		Wetl	land Hydrology Pı	resent? Yes No			
Describe R	Recorded Data (stream	gauge, monito	ring well, aerial	photos, p	revious ins	spections),	if available:				
Remarks:											

Project/Site: The Valley's Edge			City/C	ounty:Butte	Sa	Sampling Date: 11/11/14				
Applicant/Owner: B. Brouhard						State:CA	Sai	mpling Point:	W09	
Investigator(s):D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S	32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ee		Local	relief (concave,	conve	x, none):cone	cave	SI	ope (%):4	
Subregion (LRR):C - Mediterranean C	 California	Lat:39.			Long:-121.776017 Datum:WGS 84					
Soil Map Unit Name: Doemill-Jokerst								n:Vernal po		
Are climatic / hydrologic conditions on th	*	•	ar? V	es (• No ((If no, explain				
		gnificantly				al Circumstar		,) No	
		aturally pr					•		y NO	
Are Vegetation Soil or Hy SUMMARY OF FINDINGS - At:	,	, ,		,		explain any a			eatures	. etc.
			Jan	pinig point i	- Court	ono, trano		portant i		
Hydrophytic Vegetation Present? Hydric Soil Present?				Is the Sample	d Aroo					
Wetland Hydrology Present?				within a Wetla			•	No O		
Remarks:				within a wetta	iiu:	103		110		
VEGETATION		Absolute	Domii	nant Indicator	Don	ninance Test	worksho	ot·		
Tree Stratum (Use scientific names.) 1				ies? Status	Nun	nber of Domir t Are OBL, FA	nant Speci	es	3	(A)
2. 3.						al Number of lecies Across A			3	(B)
4Sapling/Shrub Stratum	Total Cover	: %				cent of Domin t Are OBL, FA			00.0 %	(A/B)
1.					Pre	valence Inde	x worksh	eet:		
2.					_	Total % Cove			oly by:	
3.					_	species	10	x 1 =	10	
4.					FAC	CW species	10	x 2 =	20	
5.					FAC	Species	50	x 3 =	150	
	Total Cover:	%			FAC	CU species	10	x 4 =	40	
Herb Stratum					UPL	species		x 5 =	0	
1.Festuca perennis		30	Yes	FAC	Colu	umn Totals:	80	(A)	220	(B)
2-Hordeum marinum gussoneanum	<u>1</u>		Yes	FAC	_	Prevalence	Index - F	2/Δ —	2.75	
3. Deschampsia danthonioides			Yes	FACW	Hyd	Irophytic Veg			2.13	
4.Lasthenia fremontii		5 5	No No	OBL	_	Dominance				
5.Navarretia leucocephala 6.Bromus hordeacus		$\frac{3}{5}$	No	OBL FACU		Prevalence I				
7. Festuca myuros		$\frac{3}{5}$	No	FACU		Morphologica			e supporti	ing
8.				TACO	- ''			on a separat		J
<u> </u>	Total Cover:	80 %			$- \square $	Problematic	Hydrophyt	ic Vegetatior	າ¹ (Explain	1)
Woody Vine Stratum 1						icators of hyd	dric soil ar	nd wetland h	ydrology	must
2					-	la a sala sati a				
% Bare Ground in Herb Stratum 2	Total Cover: 0 % Cover	% of Biotic 0	Crust	%	Veg	Irophytic etation sent?	Yes 🖲	No (\supset	
Remarks:			_							

SOIL Sampling Point: $\underline{W09}$

Profile Des	scription: (Describe t	o the depth ne	eded to docur	nent the	indicator	or confirm	n the absence of	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)	<u></u> % C	olor (moist)	%	Type ¹	_Loc ²	Texture	Remarks			
0-5	2.5 YR 3/3	95 2.5 Y	YR 3/6	5	C	<u>M</u>	Gravelly clay loam				
				-							
¹ Type: C=0	Concentration, D=Deple	etion, RM=Red	uced Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applicable	e to all LRRs. u	nless otherwise	noted.)			Indicators for I	Problematic Hydric Soils: 3			
Histos		[Sandy Redo					(A9) (LRR C)			
Histic I	Epipedon (A2)	ĺ	Stripped Ma	atrix (S6)				k (A10) (LRR B)			
Black I	Histic (A3)	Ĭ	Loamy Muc	ky Miner	al (F1)			Vertic (F18)			
	gen Sulfide (A4)		Loamy Gley					nt Material (TF2)			
	ed Layers (A5) (LRR C) [Depleted M	,	,		Other (Exp	olain in Remarks)			
	Muck (A9) (LRR D)	(1)	Redox Dark		, ,						
ı Ш ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and			
	Dark Surface (A12) Mucky Mineral (S1)	Į ſ	Redox Dep X Vernal Pool		(F8)			drology must be present.			
	Gleyed Matrix (S4)	L	Vernai Fooi	S (1-9)			unless distributed or problematic				
	Layer (if present):										
Type:	zayor (ii procont)i										
Depth (i	nches):		_				Hydric Soil Pre	esent? Yes No			
Remarks:							Tiyano con Ti				
rtomanto.											
HYDROL	OGY										
Wetland H	ydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; che	eck all that appl	y)				y Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)			
High W	Vater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)			
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)		Drift	Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveria	ne)	Hydrogen	Sulfide (Odor (C1)		Drair	age Patterns (B10)			
	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Ro	ots (C3) Dry-S	Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver i	ine)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Satu	ration Visible on Aerial Imagery (C9)			
Inunda	ition Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)			ow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC-	Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	es No 🤄	Depth (in	ches):							
Water Tabl	e Present? Ye	es O No 🤄	Depth (in	ches):							
Saturation		es O No (Depth (in	ches):		Wet	land Hydrology D	resent? Yes No			
	apillary fringe) ecorded Data (stream	gauge monitor	ing well aerial	nhotos r	revious ins		land Hydrology P	resent? Yes No			
DOSCIDE N	Data (Sticalit	gaago, momilio	y won, achai	μποισο, μ		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ii availabio.				
Remarks:											
ixciliains.											

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W10		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, 1	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	lief (concave,	convex, none):conc	ave	Slop	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	7	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	*	•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (
			oblematic		eeded, explain any a	•		(
SUMMARY OF FINDINGS - Att				`	, , ,		,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ing point it	ocations, transe	ecis, iiii	Jortani ied	itures,	elc.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
Trace Charles (Use exicutific research)		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina That Are OBL, FA			,	Λ\
1. 2.				_	- I I I I I I I I I I I I I I I I I I I	CVV, OI FA	C: 3	()	(A)
3.					Total Number of D Species Across Al		3	ľ	В)
4.				_	-			(,	<i>D</i>)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0%	A/B)
Sapling/Shrub Stratum								.0 /0 (/	42)
1					Prevalence Index				
2					OBL species	10	Multiply x 1 =	10	
3. 4.				_	FACW species	10	x 2 =	20	
5.					FAC species	50	x 3 =	150	
o	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		70			UPL species	10	x 5 =	0	
1. Festuca perennis		30	Yes	FAC	Column Totals:	80	(A)	220	(B)
2. Hordeum marinum gussoneanum	<u>!</u>	20	Yes	FAC		a da co	/A	2.75	
3. Deschampsia danthonioides		10	Yes	FACW	Prevalence I			2.75	
4.Lasthenia fremontii		5	No	OBL	Hydrophytic Veg X Dominance To				
5.Navarretia leucocephala 6.Bromus hordeacus		5	No	OBL	× Prevalence In				
7. Festuca myuros		5	No No	FACU FACU	Morphologica			supportin	ıa
8.			110	- FACU	data in Re	marks or c	n a separate	sheet)	3
o	Total Cover:	80 %			Problematic F	lydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Gover.	80 %							
1					¹ Indicators of hydbe present.	ric soil and	d wetland hyd	drology m	nust
2				_	-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum20	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No C		
Remarks:									

Profile Des	cription: (Describe t	o the depth nee	ded to docu	ment the	indicator	or confirm	n the absence o	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	2.5 YR 3/3	96 <u>2.5 Y</u>	R 3/6	4	<u>C</u>	<u>M</u>	Gravelly clay loa	<u>mm</u>
	-							
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I PDs uni	ace athorwise	noted)			Indicators fo	or Problematic Hydric Soils: 3
Histoso		e to all Lixixs, ulli	Sandy Redo					uck (A9) (LRR C)
	Epipedon (A2)		Stripped M	` '			<u></u>	uck (A10) (LRR B)
	listic (A3)		Loamy Mud	cky Miner	al (F1)		Reduce	d Vertic (F18)
	en Sulfide (A4)		Loamy Gle				=	rent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` '	,		Other (E	Explain in Remarks)
l	luck (A9) (LRR D)	(011)	Redox Dar		, ,			
I Ш .	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D		` '		3 Indicators of	of hydrophytic vegetation and
l	Mucky Mineral (S1)	-	Vernal Poo		(1 0)		wetland	hydrology must be present.
	Gleyed Matrix (S4)		_	,			unless d	istributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil F	Present? Yes No
Remarks:							•	
HYDROLO	OGY							
	drology Indicators:							
_	icators (minimum of or	ne required: chec	k all that ann	lv)			Second	lary Indicators (2 or more required)
	Water (A1)		Salt Crust					ater Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Cru	` '			☐ Se	ediment Deposits (B2) (Riverine)
1 == -	ion (A3)	Ī	Aquatic In	, ,	es (B13)			ift Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri i	ne)	 Hydrogen				Dr	ainage Patterns (B10)
	ent Deposits (B2) (Non	· _	= ' '		eres along	Living Roo	= =	y-Season Water Table (C2)
	eposits (B3) (Nonriveri		=		ced Iron (C	-		ayfish Burrows (C8)
X Surface	e Soil Cracks (B6)		Recent Iro	on Reduc	tion in Plov	ved Soils ((C6)	turation Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		☐ Sh	allow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Ex	plain in R	emarks)			.C-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es O No 💿	Depth (in	iches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	iches):				
Saturation F	Present? Ye apillary fringe)	es O No 💿	Depth (in	iches):		Wetl	land Hydrology	Present? Yes No
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, p	revious ins			110001111 100 0 110 0
	,					. /		
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:W	V11	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	lief (concave,	convex, none):conc	ave	Slop	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	7	 Datui	m:WGS 84	4
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the			ear? Yes	No (
			disturbed		"Normal Circumstan		,	No ()
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	atures e	tc
	·			mg pomer		, oto, _[
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No			the Sampled		<u> </u>	Na O		
Remarks:	162 6 140		W	ithin a Wetla	na? Yes	<u> </u>	No C		
VEGETATION									
Tree Stratum (Use scientific names.)		bsolute Cover		nt Indicator ? Status	Dominance Test				
1.		00101	Сроснос	<u> Otatao</u>	Number of Domini That Are OBL, FA			(A))
2.					-			,	
3.					 Total Number of D Species Across A 		3	(B))
4.					- Percent of Domina		e		
0 1: (0) 1 0: (Total Cover:	%			That Are OBL, FA).0 % (A/I	B)
Sapling/Shrub Stratum					Prevalence Index	worksho	ot:		
1. 2.					Total % Cove		Multiply	v bv:	
3.				_	OBL species	10	x 1 =	10	
4.					FACW species	10	x 2 =	20	
5.					FAC species	50	x 3 =	150	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum					UPL species		x 5 =	0	
1.Festuca perennis		30	Yes	FAC	Column Totals:	80	(A)	220	(B)
2 Hordeum marinum gussoneanum		20	Yes	FAC	Prevalence	ndex = B/	'A =	2.75	
3. Deschampsia danthonioides 4. Lasthenia fremontii		10 5	Yes No	FACW OBL	Hydrophytic Veg			2.73	
5.Navarretia leucocephala		5	No	OBL	X Dominance T				
6.Bromus hordeacus		5	No	FACU	× Prevalence In				
7.Festuca myuros		5	No	FACU	Morphologica	l Adaptatio	ons ¹ (Provide	supporting	
8.					l		n a separate		
	Total Cover:	80 %			Problematic F	lydrophytic	c Vegetation.	(Explain)	
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hy	drology mu	ıet
1. 2.					be present.	no son and	a welland nyt	arology mu.	Si
	Total Cover:	%			Hydrophytic				
20					Vegetation				
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes •	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W11}$

Profile Des	scription: (Describe t	o the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of ir	ndicators.)
Depth	Matrix			c Feature	es			
(inches)	Color (moist)	%Co	or (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-5	2.5 YR 3/3	98 2.5 Y	R 3/6		C	<u>M</u>	Gravelly clay loam	
	-							
	<u> </u>							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr	rains ² L	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators for P	roblematic Hydric Soils: 3
Histoso	ol (A1)		Sandy Redo	x (S5)				(A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,				(A10) (LRR B)
	Histic (A3)		Loamy Muc				Reduced V	` '
	gen Sulfide (A4)		Loamy Gley					Material (TF2)
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	` '			Uther (Expl	lain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface		Redox Dark Depleted Da		` ,			
	Dark Surface (A12)	(A11)	Redox Depi		` '		3 Indicators of hy	ydrophytic vegetation and
	Mucky Mineral (S1)	-	Vernal Pool		(1.0)		wetland hyd	rology must be present.
	Gleyed Matrix (S4)			- (- /			unless distri	buted or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ii	nches):						Hydric Soil Pres	sent? Yes No
Remarks:							'	
	201/							
HYDROLO								
	ydrology Indicators:						0 1	
	licators (minimum of or	ne required; che						Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	` '				r Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Crus					nent Deposits (B2) (Riverine)
	tion (A3)		Aquatic In					Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri		Hydrogen		` '		= -	age Patterns (B10)
=	ent Deposits (B2) (Non		=		_	Living Roo	` ,	eason Water Table (C2)
	eposits (B3) (Nonriver	ine)			ed Iron (C	,		sh Burrows (C8)
	e Soil Cracks (B6)	[=			ved Soils (· <u>—</u>	ation Visible on Aerial Imagery (C9)
	tion Visible on Aerial Ir	magery (B7) [Thin Muck		` '			w Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	iain in K	emarks)		X FAC-I	Neutral Test (D5)
Field Obse		No O	Danth (in	-11-				
		es No 💿		· —				
Water Table		es No 💿		· —				
Saturation I	Present? γ_{ϵ} apillary fringe)	es O No 🗨	Depth (in	ches):		Wetl	and Hydrology Pre	esent? Yes No
`	ecorded Data (stream	gauge, monitorir	g well, aerial	ohotos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:W	/12	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace			Local rel	ief (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724324		Long:-121.77354	7	 Datur	n:WGS 84	4
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal pool	 I	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No 🔘	j)
			oblematic?		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att	<u> </u>				• •		,	itures e	tc
				ng pome i		, oto, _[901141111100		
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No			the Sample			No. O		
Remarks:	165 0 140		WI	thin a Wetla	na? Yes		No (
VEGETATION									
Troc Stratum (Has aciantific names)		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina That Are OBL, FA			(4)	
1. 2.			-	_	- I Hat Ale OBL, FAI	CVV, OI FA	C: 3	(A)	'
3.				_	Total Number of D Species Across Al		3	(B)	`
4.					_			(D)	'
	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 % (A/E	B)
Sapling/Shrub Stratum								.0 /0 (/ 4-	
1					Prevalence Index				
2					OBL species	30	Multiply x 1 =	30	
3. 4.				_	FACW species	40	x 1 = x 2 =	80	
5.					FAC species	40	x 3 =	0	
o	Total Cover:	%		_	FACU species	5	x 4 =	20	
Herb Stratum		70			UPL species	J	x 5 =	0	
1. Hordeum marinum gussoneanum	·	20	Yes	OBL	Column Totals:	75	(A)		(B)
2. Festuca perennis		20	Yes	FACW	- Danielana i		, , , ,	1.72	
3. Deschampsia danthonioides		15	Yes	FACW	Prevalence I			1.73	
4.Lasthenia fremontii		5	No	FACW	Hydrophytic Veg				
5. Plagiobothrys stipitatus		5	No	OBL	× Prevalence In				
6.Navarretia leucocephala 7.Festuca myuros		5	No No	OBL FACU	Morphological			supporting	
8.			110	- FACU	data in Rei	marks or o	n a separate	sheet)	
o	Total Cover:	75 %			Problematic H	lydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Covol.	13 %							
1					¹ Indicators of hydibe present.	ric soil and	d wetland hyd	Irology mus	st
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum25	% Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No 🔘		
Remarks:									

Profile Des	cription: (Describe to	o the depth n	eeded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	97 2.5	YR 3/6	3	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
								-
Type: C=C	Concentration, D=Deple	etion, RM=Red	duced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indiantara, /Amplianhi	to all I DDa i	unlana ethemule	noted \			Indicators for	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LKKS, t	Sandy Redo					ck (A9) (LRR C)
=	pipedon (A2)		Stripped M	` '				ck (A10) (LRR B)
	listic (A3)		Loamy Mud	, ,			Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle				<u></u>	nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` '	,		Other (Ex	xplain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(111)	Redox Dar		, ,			
	ed Below Dark Surface Park Surface (A12)	(ATT)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		(1 0)		wetland hy	drology must be present.
	Gleyed Matrix (S4)			, ,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:			_					
Depth (ir	nches):						Hydric Soil Pr	esent? Yes No
Remarks:								
HYDROLO	OGY							
	/drology Indicators:							
l -	icators (minimum of or	ne required: ch	eck all that ann	lv)			Seconda	ry Indicators (2 or more required)
	Water (A1)		Salt Crust					ter Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru	` '			Sed	iment Deposits (B2) (Riverine)
1 == -	ion (A3)		Aquatic In	, ,	tes (B13)			Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri r	ne)	Hydrogen				Drai	nage Patterns (B10)
	ent Deposits (B2) (Non	riverine)	Oxidized	Rhizosph	eres along	Living Roo	ots (C3) Dry-	Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ne)	Presence	of Reduc	ced Iron (C	4)	Cray	rfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	on Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)			llow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Ex	plain in R	emarks)			-Neutral Test (D5)
Field Obse								
		s No (· —				
Water Table	e Present? Ye	s No (Depth (in	iches):				
Saturation F	10	s No (Depth (in	iches):		Wetl	and Hydrology P	Present? Yes No
	pillary fringe) ecorded Data (stream g	gauge, monito	ring well, aerial	photos, p	revious ins			10001111 100 (0 110 (0
	,	- -	<u>.</u> .			. "		
Remarks:								

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sar	npling Date:	11/11/14	
Applicant/Owner: B. Brouhard					St	tate:CA	San	npling Point:	W13	
Investigator(s):D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S 32	2, T 22N, 1	R 2E			
Landform (hillslope, terrace, etc.): terrace	2		Local	relief (concave,	convex, r	none):conc	ave	SI	ope (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724324	4	Long:-	121.77354	17	 Dat	um:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst,		opes				NWI cla	assification	:Vernal po	ol	
Are climatic / hydrologic conditions on the		•	ear? Ye	es (•) No () (If	— f no, explair				
· -		gnificantly			•			ent? Yes	No ($\overline{}$
		aturally pro				plain any a			,	
SUMMARY OF FINDINGS - Atta	0,			`					eatures,	etc.
Hydrophytic Vegetation Present?									<u> </u>	
Hydric Soil Present?	Yes No			Is the Sampled	d Area					
Wetland Hydrology Present?	Yes No			within a Wetla	nd?	Yes	•	No 🔘		
Remarks:										
VEGETATION		Absolute	Domir	nant Indicator	Domin	ance Test	workshee	et:		
Tree Stratum (Use scientific names.) 1				es? Status	Numbe	er of Dominare OBL, FA	ant Specie	es	2 (A	A)
2. 3.					1	lumber of D s Across A			2 (E	В)
4.	Total Cover	: %				t of Domina re OBL, FA			00.0 % (A	4/B)
Sapling/Shrub Stratum 1.					Preval	ence Index	v workshe	ot:		
2.					_	tal % Cove			oly by:	
3.					OBL sp		15	x 1 =	15	
4.					_	species	10	x 2 =	20	
5.			-		FAC sp	pecies	65	x 3 =	195	
	Total Cover:	%			FACU:	species		x 4 =	0	
Herb Stratum					UPL sp	ecies		x 5 =	0	
1.Festuca perennis		40	Yes	FAC	_ Columi	n Totals:	90	(A)	230	(B)
2 Hordeum marinum gussoneanum		25	Yes	FAC	- Р	revalence l	Index = B	/A =	2.56	
3. Lasthenia fremontii		10	No	OBL		phytic Veg		•	2.30	
4. Plagiobothrys stipitatus 5. Deschampsia danthonoides		5 5	No No	FACW		minance T				
6.Navarretia leucocephala		$\frac{3}{5}$	No	FACW OBL		evalence In				
7.			-110					ons¹ (Provide	e supporting	g
8.					-	data in Re	marks or o	on a separat	e sheet)	
	Total Cover:	90 %			- Pro	oblematic F	Hydrophyti	c Vegetation	1 (Explain)	
Woody Vine Stratum 1		70 70					lric soil an	d wetland h	ydrology m	ıust
2					be pre	sent.				
% Bare Ground in Herb Stratum 10	Total Cover: % Cover	of Biotic C	ruet	04	Hydroj Vegeta Preser	ition	Yes •	No ($\overline{}$	
Remarks:		טווטונע וכ		<u>%</u>	1.16261		162 (NO (<u> </u>	
Tromano.										

SOIL Sampling Point: $\underline{W13}$

Profile Des	cription: (Describe to	o the depth nee	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	992.5 Y	R 3/6	_ 1	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	- 							
	-							-
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	iced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I PDe un	loce othorwice	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all ERRS, ull	Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)	-	Stripped M	` '				ck (A10) (LRR B)
Black F	listic (A3)		Loamy Mud	cky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle				<u></u>	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` '	•		Other (Ex	cplain in Remarks)
l	luck (A9) (LRR D)	(444)	Redox Dar		. ,			
	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
🗀	Mucky Mineral (S1)	<u> </u>	Vernal Poo		(10)		wetland h	drology must be present.
	Gleyed Matrix (S4)	L	_	,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
	drology Indicators:							
_	icators (minimum of or	ne required: che	ck all that ann	lv)			Seconda	ry Indicators (2 or more required)
	Water (A1)		Salt Crust					ter Marks (B1) (Riverine)
	ater Table (A2)	[Biotic Cru	` '			Sed	iment Deposits (B2) (Riverine)
1 == -	ion (A3)	[Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri r	ne)	 Hydrogen				Drai	nage Patterns (B10)
	ent Deposits (B2) (Non	,	= -		eres along	Living Roo		Season Water Table (C2)
	eposits (B3) (Nonriveri		Presence	of Reduc	ed Iron (C	4)	Cray	rfish Burrows (C8)
X Surface	e Soil Cracks (B6)	j	Recent Iro	on Reduc	tion in Plov	ved Soils (C6) 🔲 Satı	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7) [Thin Muck	Surface	(C7)		Sha	llow Aquitard (D3)
Water-S	Stained Leaves (B9)	[Other (Ex	plain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es 🖯 No 💽		iches):				
Water Table	e Present? Ye	s No 💽	Depth (in	iches):				
Saturation F	Present? Ye apillary fringe)	s O No 💽	Depth (in	iches):		Wetl	and Hydrology F	Present? Yes No
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, p	revious ins			1000
	,					, ,,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:V	V14	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	Э		Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724324		Long:-121.77354	7	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	ı in Remar	·ks.)		
Are Vegetation Soil or Hyd	drology sig	nificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes	No (\circ
			oblematic'		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	- <u>-</u>				ocations, transe	cts, im	oortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominar	nt Indicator	Dominance Test	workshee	ht-		
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domina				
1					That Are OBL, FA			((A)
2					Total Number of D	ominant			
3					Species Across Al	l Strata:	2	((B)
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	0.0 %	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	r of:	Multiply	y by:	
3.					OBL species	15	x 1 =	15	
4					FACW species	10	x 2 =	20	
5		21			FACIL appeirs	65	x 3 =	195	
Herb Stratum	Total Cover:	%			FACU species UPL species		x 4 = x 5 =	0	
1.Festuca perennis		40	Yes	FAC	Column Totals:	90	(A)	230	(B)
2.Hordeum marinum gussoneanum	-	25	Yes	FAC	_ Column rotals.	90	(A)		(D)
3. Lasthenia fremontii		10	No	OBL	Prevalence I			2.56	
4. Plagiobothrys stipitatus		5	No	FACW	Hydrophytic Veg				
5. Deschampsia danthonoides		5	No	FACW	X Dominance Te				
6.Navarretia leucocephala		5	No	OBL	X Prevalence In Morphological			aupportin	
7					data in Rer	marks or o	n a separate	sheet)	ıg
8	Total Covers	0.0			Problematic H	lydrophytic	c Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover:	90 %							
1					¹ Indicators of hydr	ric soil and	d wetland hyd	drology m	nust
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum10	% Cover 0	of Biotic C	Crust	%_	Present?	Yes •	No C		
Remarks:					1				

Profile Des	scription: (Describe to	o the depth nee	eded to docu	ment the	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	R 3/6	5	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand Gr	rains	2 Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso	ol (A1)		Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,			<u> </u>	ck (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)	L	Loamy Mud					Vertic (F18) ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M					plain in Remarks)
	luck (A9) (LRR D)	´ [Redox Darl	k Surface	(F6)			,
	ed Below Dark Surface	(A11)	Depleted D		` ,		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)	L	Redox Dep Vernal Poo		(F8)			/drology must be present.
	Gleyed Matrix (S4)	2	vemai Poo	is (F9)				tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	licators (minimum of or	ne required; che	ck all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				ter Marks (B1) (Riverine)
1 == -	/ater Table (A2)	[Biotic Cru	, ,				iment Deposits (B2) (Riverine)
	tion (A3)	Ĺ	Aquatic In					Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriverir ent Deposits (B2) (Non	· ·	Hydrogen		oor (C1) eres along	Living Boo	=	nage Patterns (B10) Season Water Table (C2)
_	ent Deposits (B2) (Nonriveri eposits (B3) (Nonriveri				ced Iron (C	•	` ' 🔛 '	rfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)				tion in Plov			uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			`	· <u>—</u>	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	plain in R	emarks)		FAC	c-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ater Present? Ye	es O No 💽		iches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	iches):				
Saturation F (includes ca	Present? Ye apillary fringe)	s No 🗨	Depth (in	iches):		Wetla	and Hydrology F	Present? Yes No
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	V15
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, 1	R 2E		
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	pe (%):4
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724324		Long:-121.77354	-7	 Datur	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)	
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No 🔘
			oblematic		eeded, explain any a	nswers in l	Remarks.)	
SUMMARY OF FINDINGS - Att					. ,		,	atures, etc.
Hydrophytic Vegetation Present?	Yes No	0			·	<u> </u>		
Hydric Soil Present?	_		Is	the Sampled	d Area			
Wetland Hydrology Present?	_			thin a Wetla		•	No (
Remarks:			ı					
VEGETATION								
VEGETATION								
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test			
1.	-				Number of Domina That Are OBL, FA			(A)
2.			-	_	- - Total Number of D	lominant		
3.					Species Across Al		2	(B)
4.					Percent of Domina	ant Species	e	
Canling of Charles Charles	Total Cover:	%			That Are OBL, FA).0 % (A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	worksho	et.	
2.					Total % Cove		Multiply	v bv:
3.			-		OBL species	40	x 1 =	40
4.					FACW species	45	x 2 =	90
5					FAC species		x 3 =	0
	Total Cover:	%			FACU species		x 4 =	0
Herb Stratum		20	3.7		UPL species		x 5 =	0
1.Festuca perennis		30	Yes	OBL	Column Totals:	85	(A)	130 (B)
2. Hordeum marinum gussoneanum 3. Plagiobothrys stipitatus	!	25 10	Yes No	FACW FACW	Prevalence I	ndex = B/	A =	1.53
4. Deschampsia danthonoides		10	No	FACW FACW	Hydrophytic Veg	etation Inc	dicators:	
5.Lasthenia fremontii		5	No	OBL	X Dominance T			
6.Navarretia leucocephala		5	No	OBL	× Prevalence In	dex is ≤3.0) ¹	
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supporting
8.				_	data in Re		n a separate	
Manda Mina Chraham	Total Cover:	85 %			- I Froblematic r	iyaropriyud	, vegetation	(Explair)
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil and	d wetland hvo	droloav must
2				_	be present.			
Z	Total Cover:	%		_	Hydrophytic			
0/ Para Craund in Harb Stratum 15			ruot	0/	Vegetation	Yes •	No 〇	'
% Bare Ground in Herb Stratum15 Remarks:	% Cover 0	טווטום ת		<u>%</u>	Present?	res 🛡	NO U	r
Remarks:								

Profile Des	cription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	R 3/6	5	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
				-				
	-			-				-
	·							
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I DDs un	lace athorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all ERRS, un	Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)	<u> </u>	Stripped Ma	. ,				ck (A10) (LRR B)
	listic (A3)		Loamy Mud	ky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle				<u></u>	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M		,		Other (Ex	cplain in Remarks)
	uck (A9) (LRR D)	(011)	Redox Dark		` '			
· — ·	ed Below Dark Surface Park Surface (A12)	(A11)	Depleted D Redox Dep				3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		(10)		wetland h	drology must be present.
	Gleyed Matrix (S4)	۷	<u> </u>	()			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO)GY							
	/drology Indicators:							
1	icators (minimum of or	ne required: che	ck all that ann	(v)			Seconda	ry Indicators (2 or more required)
	Water (A1)	le required, ene	Salt Crust					ter Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Cru	,				iment Deposits (B2) (Riverine)
	ion (A3)		Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri r	ne)	Hydrogen				<u> </u>	nage Patterns (B10)
	ent Deposits (B2) (Non	· '	= ' '		eres along	Livina Roc		Season Water Table (C2)
_	eposits (B3) (Nonriveri				ced Iron (C	•	` / 🗀	rfish Burrows (C8)
🖳	Soil Cracks (B6)	,			tion in Plov	•		ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			,	· 🖳	llow Aquitard (D3)
=	Stained Leaves (B9)		Other (Exp	olain in R	emarks)			C-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s No 💽	Depth (in	ches):				
Water Table	e Present? Ye	s No 🕞	Depth (in	ches):				
Saturation F	10	s No 🖲	Depth (in	ches):		Wotl	and Hydrology F	Present? Yes No
	pillary fringe) ecorded Data (stream g	gauge, monitorii	ng well, aerial	photos, r	revious ins			resent: Tes © NO
		J	J 5, aonai	,, p		,,		
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	<i>V</i> 16
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, 1	R 2E	_	
Landform (hillslope, terrace, etc.): terrace	2		Local re	lief (concave,	convex, none):conc	ave	Slop	oe (%):4
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724324		Long:-121.77354	.7	——— Datur	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal pool	1
Are climatic / hydrologic conditions on the	-		ear? Yes	No (
	<u> </u>		disturbed		"Normal Circumstand		,	No 🔘
			oblematic		eeded, explain any a	·		
SUMMARY OF FINDINGS - Atta					. ,		,	oturos oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampi	ing point it	ocalions, transe	ecis, iiiip	Jortani iea	itures, etc.
Hydrophytic Vegetation Present?	_							
Hydric Soil Present?	_			the Sample				
Wetland Hydrology Present? Remarks:	Yes No		w	ithin a Wetla	nd? Yes	•	No (
Nomano.								
VEGETATION								
		Absolute		nt Indicator	Dominance Test	workshee	t:	
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina			(4)
1			-		That Are OBL, FA	CW, or FA	C: 2	(A)
2. 3.					Total Number of D		2	(D)
4.					Species Across Al	i Siraia.	2	(B)
T	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 % (A/B)
Sapling/Shrub Stratum	rotal cover.	70						.0 % (A/B)
1					Prevalence Index			
2					Total % Cove		Multiply	
3					OBL species	40	x 1 =	40
4					FACW species FAC species	45	x 2 = x 3 =	90
5	Total Cover:	%			FACU species		x 4 =	0
Herb Stratum	Total Cover.	%0			UPL species		x 5 =	0
1.Festuca perennis		30	Yes	OBL	Column Totals:	85	(A)	130 (B)
2. Hordeum marinum gussoneanum		25	Yes	FACW		03	(7.1)	
3.Plagiobothrys stipitatus		10	No	FACW	Prevalence I			1.53
4. Deschampsia danthonoides		10	No	FACW	Hydrophytic Veg			
5.Lasthenia fremontii		5	No	OBL	X Dominance T			
6.Navarretia leucocephala		5	No	OBL	X Prevalence In Morphologica			aupporting
7					data in Re	marks or o	n a separate	sheet)
8	Total Carren				Problematic F	lydrophytic	Vegetation ¹	(Explain)
Woody Vine Stratum	Total Cover:	85 %						
1					¹ Indicators of hyd	ric soil and	d wetland hyd	drology must
2					be present.			
	Total Cover:	%			Hydrophytic			
% Bare Ground in Herb Stratum 15	% % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes	No 🔘	
Remarks:	<u> </u>							

SOIL Sampling Point: $\underline{W16}$

Profile Des	cription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	R 3/6	5	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	-			-				-
	·							
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I DDs un	lace athorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all ERRS, un	Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)	<u> </u>	Stripped Ma	. ,				ck (A10) (LRR B)
	listic (A3)		Loamy Mud	ky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle				<u></u>	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M		,		Other (Ex	cplain in Remarks)
	uck (A9) (LRR D)	(011)	Redox Dark		` '			
· — ·	ed Below Dark Surface Park Surface (A12)	(A11)	Depleted D Redox Dep				3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		(10)		wetland h	drology must be present.
	Gleyed Matrix (S4)	۷	<u> </u>	()			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO)GY							
	/drology Indicators:							
1	icators (minimum of or	ne required: che	ck all that ann	(v)			Seconda	ry Indicators (2 or more required)
	Water (A1)	le required, ene	Salt Crust					ter Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Cru	,				iment Deposits (B2) (Riverine)
	ion (A3)		Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri r	ne)	Hydrogen				<u> </u>	nage Patterns (B10)
	ent Deposits (B2) (Non	· '	= ' '		eres along	Livina Roc		Season Water Table (C2)
_	eposits (B3) (Nonriveri				ced Iron (C	•	` / 🗀	rfish Burrows (C8)
🖳	Soil Cracks (B6)	,			tion in Plov	•		uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			,	· 🖳	llow Aquitard (D3)
=	Stained Leaves (B9)		Other (Exp	olain in R	emarks)			C-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s No 💽	Depth (in	ches):				
Water Table	e Present? Ye	s No 🕞	Depth (in	ches):				
Saturation F	10	s No 🖲	Depth (in	ches):		Wotl	and Hydrology F	Present? Yes No
	pillary fringe) ecorded Data (stream g	gauge, monitorii	ng well, aerial	photos, r	revious ins			resent: Tes © NO
		J	J 5, aonai	,, p		,,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W17		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	7	 Datur	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	in Remar	 ks.)		
Are Vegetation Soil or Hy	drology siç	nificantly	disturbed	? Are	"Normal Circumstand	es" presei	nt? Yes	No 🔘	
			oblematic?		eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, imp	ortant fea	atures, etc	
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.	_				Number of Domina That Are OBL, FA			(A)	
2.			-	_	- - Total Number of D	ominant			
3.					Species Across Al		2	(B)	
4.					- - Percent of Domina	nt Species	3		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0.0 % (A/B)	
1.					Prevalence Index	workshe	et:		
2.					Total % Cove		Multiply	y by:	
3.				_	OBL species	10	x 1 =	10	
4.			-	_	FACW species	10	x 2 =	20	
5.					FAC species	60	x 3 =	180	
Harb Stratum	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1. Festuca perennis		40	Yes	FAC	UPL species		x 5 =	0	
2.Hordeum marinum gussoneanum		20	Yes	FAC	Column Totals:	80	(A)	210 (B)	
3. Deschampsia danthonioides	<u>′</u>	10	No	FACW	Prevalence I	ndex = B/	A =	2.63	
4.Lasthenia fremontii		5	No	OBL	Hydrophytic Veg	etation Inc	dicators:		
5.Navarretia leucocephala		5	No	OBL	X Dominance Te				
6.					× Prevalence In				
7					Morphological	Adaptatio marks or o	ns' (Provide : n a separate	supporting sheet)	
8				_	Problematic H			*	
Woody Vine Stratum	Total Cover:	80 %							
1					¹ Indicators of hydrobe be present.	ric soil and	d wetland hyd	drology must	
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum20) % Cover		Crust	%	Vegetation Present?	Yes •	No 🔿		
Remarks:									

SOIL Sampling Point: $\underline{W17}$

Profile Des	cription: (Describe to	o the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of	f indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	R 3/6	5	<u>C</u>	PL	Gravelly clay loar	<u>n</u>
								_
	- 							_
				-				
	-							_
								_
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I PDs un	loss othorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all EKKS, ull	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,			<u> </u>	ck (A10) (LRR B)
	listic (A3)		Loamy Mud	cky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle				=	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M		,		Other (E	xplain in Remarks)
l	luck (A9) (LRR D)	(011)	Redox Dark		` '			
I Ш .	ed Below Dark Surface Dark Surface (A12)	(ATT)	Redox Dep		` ,		3 Indicators of	hydrophytic vegetation and
l	Mucky Mineral (S1)		Vernal Poo		(10)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)		_	,			unless dis	stributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Remarks:							•	
HYDROLO	OGY							
	drology Indicators:							
_	icators (minimum of or	ne required: chec	k all that ann	lv)			Seconda	ary Indicators (2 or more required)
	Water (A1)		Salt Crust					ater Marks (B1) (Riverine)
	ater Table (A2)	L [Biotic Cru	` '			☐ Sed	diment Deposits (B2) (Riverine)
1 == -	ion (A3)		Aquatic In	, ,	es (B13)			t Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri r	ne)	Hydrogen				∑ Dra	inage Patterns (B10)
	ent Deposits (B2) (Non	· ·	= -		eres along	Living Roo	= -	-Season Water Table (C2)
	eposits (B3) (Nonriveri		Presence	of Reduc	ced Iron (C	4)	Cra	yfish Burrows (C8)
X Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Sat	uration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	allow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es O No 💿		iches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	iches):				
Saturation F		es O No 💿	Depth (in	ches):		Wetl	and Hydrology I	Present? Yes No
	apillary fringe) ecorded Data (stream g	gauge, monitorir	ng well, aerial	photos, p	revious ins			resent: res © No O
		33.,	J ,	, ,,,,		.,		
Remarks:								

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sar	npling Date:	11/11/14	+
Applicant/Owner: B. Brouhard					St	ate: <u>CA</u>	Sar	npling Point:	W18	
Investigator(s): D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S 32	, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local	relief (concave,	convex, n	one):conc	ave	SI	ope (%):4	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	724381	7	Long:-	21.77601	17	 Dat	um:WGS	84
Soil Map Unit Name: Doemill-Jokerst		opes			_	NWI cla	VI classification:Vernal pool			
Are climatic / hydrologic conditions on th		•	ear? Ye	es (•) No () (If	— no, explair				
		gnificantly			•			ent? Yes) No	
		aturally pro						Remarks.)	,	
SUMMARY OF FINDINGS - At	, o, <u> </u>	, ,		,					eatures,	, etc.
Hydrophytic Vegetation Present?						•	· · ·	<u>-</u>		
Hydric Soil Present?	Yes No			Is the Sample	d Area					
Wetland Hydrology Present?	Yes No			within a Wetla	nd?	Yes	•	No 🔘		
Remarks:										
VEGETATION		A la a a la sta	D	and Indiana	D	-		-4		
Tree Stratum (Use scientific names.)		Absolute % Cover		nant Indicator ies? Status		ance Test r of Domina				
1.						e OBL, FA			2	(A)
2.					Total N	umber of D	Oominant			
3					1	s Across A			2	(B)
4					Percen	t of Domina	ant Specie	s		
Sapling/Shrub Stratum	Total Cover	: %			That Ar	e OBL, FA	CW, or FA	AC: 10	00.0 %	(A/B)
1.					Prevale	ence Index	k workshe	et:		
2.					To	tal % Cove	r of:	Multip	oly by:	_
3.					OBL sp	ecies	20	x 1 =	20	
4.					FACW	species	5	x 2 =	10	
5					FAC sp		55	x 3 =	165	
Herb Stratum	Total Cover:	%				species	5	x 4 =	20	
1.Festuca perennis		35	Yes	FAC	UPL sp			x 5 =	0	
2.Navarretia leucocephala		15	$\frac{1 \text{ cs}}{\text{No}}$	OBL	_ Columr	n Totals:	85	(A)	215	(B)
3. Deschampsia danthonioides		5	No	FACW	P	revalence l	Index = B	/A =	2.53	
4.Bromus hordeaceus		5	No	FACU	Hydro	hytic Veg	etation In	dicators:		
5. Lasthenia fremontii		5	No	OBL	× Do	minance T	est is >50	%		
6. Hordeum marinum gussoneanum	n	20	Yes	FAC		evalence In				
7								ons ¹ (Provid on a separat		ng
8								c Vegetation		1)
Woody Vine Stratum	Total Cover:	85 %				obioinatio i	iyaropiiya	o vogotatioi	(Explair)	'/
1					¹ Indicate be pre		ric soil an	d wetland h	ydrology r	must
2	Total Cover:				Hydro	hytic				
					Vegeta	tion				
	5 % Cover	of Biotic C	rust _	<u></u>	Presen	it?	Yes •	No ()	
Remarks:										

Profile Des	scription: (Describe to	o the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	2.5 YR 3/3	98 2.5 Y	R 3/6	2	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	-							
				-				
	-							-
	-						-	
				_				
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicators (Amplicable	to all LDDs		\			lu dianta un fau	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LRRS, un	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	` '				ck (A10) (LRR B)
	Histic (A3)		Loamy Mud	, ,			Reduced	Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gle				Red Pare	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (E)	plain in Remarks)
l	luck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
🗀	Mucky Mineral (S1)		Vernal Poo		(ГО)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)		_ voinai i oo	.0 (1 0)			unless dis	tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
	ydrology Indicators:							
_	icators (minimum of or	ne required: chec	k all that ann	lv)			Seconda	ry Indicators (2 or more required)
	Water (A1)		Salt Crust					ter Marks (B1) (Riverine)
l 🖳	ater Table (A2)	L	Biotic Cru	` '				iment Deposits (B2) (Riverine)
1 == -	tion (A3)	L	Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriverir	ne) [Hydrogen				<u> </u>	nage Patterns (B10)
1 ==	ent Deposits (B2) (Non		= -		eres along	Livina Roc		Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriveri	· ·	=		ced Iron (C	-	• • =	rfish Burrows (C8)
🖳	e Soil Cracks (B6)	ĺ			tion in Plov			uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	llow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse	rvations:	_						
Surface Wa	iter Present? Ye	es O No 💿	Depth (in	iches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation F		es O No 💿	Depth (in	iches):		Wot	and Hydrology F	Present? Yes No
	apillary fringe) ecorded Data (stream g	gauge, monitorin	g well, aerial	photos, r	revious ins		and Hydrology F if available:	Present? Yes (● No (
Booonso IX	ooorada Bata (otroann ;	gaage, memen	ig won, donar	priotoo, p	novious inc	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ii availabio.	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	inty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W19		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	elief (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	7	7 Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbe		"Normal Circumstand		,	No ($\overline{}$
			oblematic		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att							,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampi	ing point it	ocations, transe	cts, iiii	Jortani lee		eic.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			s the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Tromane.									
VEGETATION									
T 0: 11 : 17		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	s? Status	Number of Domina			,	Δ.
1					That Are OBL, FA	JVV, or FA	C: 2	()	A)
2					Total Number of D		2	//	D)
4.			-		Species Across Al	i Strata.	2	(1	B)
	Total Cover:	%			Percent of Domina That Are OBL, FA).0 % (A	A/B)
Sapling/Shrub Stratum	rotal cover.	70			That Are OBE, I A	5 VV, OI 1 A	100).U% (F	-v <i>D</i>)
1					Prevalence Index				
2					Total % Cover		Multiply		
3					OBL species	20	x 1 =	20	
4					FACW species FAC species	5 55	x 2 = x 3 =	10 165	
5	Total Cover:	%			FACU species	5	x 4 =	20	
Herb Stratum	Total Cover.	%0			UPL species	3	x 5 =	0	
1.Festuca perennis		35	Yes	FAC	Column Totals:	85	(A)	215	(B)
2.Navarretia leucocephala		15	No	OBL			. ,		(-)
3. Deschampsia danthonioides		5	No	FACW	Prevalence I			2.53	
4.Bromus hordeaceus		5	No	FACU	Hydrophytic Veg				
5.Lasthenia fremontii		5	No	OBL	X Dominance Te				
6. Hordeum marinum gussoneanum	<u>. </u>	20	Yes	FAC	X Prevalence In				_
7					Morphological data in Rer	Adaptation narks or c	ns (Provide n a separate	supporting sheet)	g
8					- Problematic H				,
Woody Vine Stratum	Total Cover:	85 %							
1					¹ Indicators of hydr	ic soil and	d wetland hy	drology m	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 15	5 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 💿	No C)	
Remarks:				<u> </u>					
l									

Profile Des	scription: (Describe to	o the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	2.5 YR 3/3	98 2.5 Y	R 3/6	2	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	-							
				-				
	-							-
	-						-	
				_				
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicators (Amplicable	to all LDDs		\			lu dianta un fau	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LRRS, un	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	` '				ck (A10) (LRR B)
	Histic (A3)		Loamy Mud	, ,			Reduced	Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gle				Red Pare	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (E)	plain in Remarks)
l	luck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
🗀	Mucky Mineral (S1)		Vernal Poo		(ГО)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)		_ voinai i oo	.0 (1 0)			unless dis	tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
	ydrology Indicators:							
_	icators (minimum of or	ne required: chec	k all that ann	lv)			Seconda	ry Indicators (2 or more required)
	Water (A1)		Salt Crust					ter Marks (B1) (Riverine)
l 🖳	ater Table (A2)	L	Biotic Cru	` '				iment Deposits (B2) (Riverine)
1 == -	tion (A3)	L	Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriverir	ne) [Hydrogen				<u> </u>	nage Patterns (B10)
1 ==	ent Deposits (B2) (Non		= -		eres along	Livina Roc		Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriveri	· ·	=		ced Iron (C	-	• • =	rfish Burrows (C8)
🖳	e Soil Cracks (B6)	ĺ			tion in Plov			uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	llow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse	rvations:	_						
Surface Wa	iter Present? Ye	es O No 💿	Depth (in	iches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation F		es O No 💿	Depth (in	iches):		Wet	and Hydrology F	Present? Yes No
	apillary fringe) ecorded Data (stream g	gauge, monitorin	g well, aerial	photos, r	revious ins		and Hydrology F if available:	Present? Yes (● No (
Booonso IX	ooorada Bata (otroann ;	gaage, memen	ig won, donar	priotoo, p	TOTIOGO IIIC	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ii availabio.	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W20		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	elief (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724173		Long:-121.77478	3	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	 :Vernal swa	ıle	
Are climatic / hydrologic conditions on the	*	•	ear? Yes	No ((If no, explair	in Remai	rks.)		
			disturbed		"Normal Circumstand			No (\circ
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta							,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	llowing	Sampi	ing point it	ocations, transe	:015, 1111	portant lea		eic.
Hydrophytic Vegetation Present?	_								
Hydric Soil Present?	_			the Sample			_		
Wetland Hydrology Present? Remarks:	Yes No		w	ithin a Wetla	nd? Yes	(•)	No (
Tromano.									
VEGETATION									
T 0: 1 (1) : 25		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	_	% Cover	Species	s? Status	Number of Domina			,	(A)
1			-		That Are OBL, FA	CVV, or FA	C: 2	((A)
2. 3.					Total Number of D		2	,	(D)
4.					Species Across Al	i Siraia.	2	((B)
T	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum	rotal Gover.	70).U % (A	A/b)
1					Prevalence Index				
2					Total % Cove		Multiply		
3					OBL species	5	x 1 =	5 20	
4					FACW species FAC species	10 60	x 2 = x 3 =	180	
5	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum	Total Cover.	%0			UPL species	10	x 5 =	0	
1.Festuca perennis		40	Yes	FAC	Column Totals:	85	(A)	245	(B)
2. Hordeum marinum gussoneanum		20	Yes	FAC			. ,		(-)
3. Deschampsia danthonoides		10	No	FACW	Prevalence I			2.88	
4.Navarretia leucocephala		5	No	OBL	Hydrophytic Veg				
5.Centromadia fitchii		5	No	FACU	X Dominance To				
6.Bromus hordeaceus		5	No	FACU	× Prevalence In				. ~
7					Morphologica data in Re	narks or c	ons (Provide on a separate	supporting sheet)	ıg
8					Problematic F)
Woody Vine Stratum	Total Cover:	85 %							
1.					¹ Indicators of hyd	ic soil an	d wetland hy	drology m	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 15	% % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:				<u> </u>					
l									

SOIL Sampling Point: $\underline{W20}$

Profile Des	scription: (Describe	to the depth ne	eded to docui	nent the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	97 2.5 Y	R 3/6	3	C	<u>PL</u>	Gravelly clay loam	
	-							
	-	·						-
	-							
¹ Type: C=0	Concentration, D=Dep	letion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand Gr		Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicable	le to all LRRs, un	less otherwise	noted.)				Problematic Hydric Soils: 3
Histoso	, ,		Sandy Redo	. ,			<u> </u>	k (A9) (LRR C)
	Epipedon (A2)	Ļ	Stripped Ma	` ,			<u> </u>	k (A10) (LRR B)
	Histic (A3) en Sulfide (A4)	L	Loamy Mud	-	. ,			Vertic (F18) nt Material (TF2)
	ed Layers (A5) (LRR (E)	Depleted M					plain in Remarks)
	luck (A9) (LRR D)		Redox Dark	` '				
Deplete	ed Below Dark Surface	e (A11)	Depleted D	ark Surfa	ice (F7)		2 Indicators of	hydraphytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			hydrophytic vegetation and drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	s (F9)				ributed or problematic
	Gleyed Matrix (S4) Layer (if present):							•
Type:	Layer (ii present).							
Depth (ii	oches).						Hydric Soil Pro	esent? Yes (•) No (
Remarks:							Hydric 30ii Fit	esent: Tes NO
ixemaiks.								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of o	ne required; che	ck all that appl	y)			Secondar	ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			Wat	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Saturat	tion (A3)		Aquatic In					Deposits (B3) (Riverine)
	Marks (B1) (Nonriver i		Hydrogen					nage Patterns (B10)
=	ent Deposits (B2) (No		=		_	Living Roo	` / 🖳 -	Season Water Table (C2)
	eposits (B3) (Nonriver	rine)			ed Iron (C	,		fish Burrows (C8)
	e Soil Cracks (B6)	magan, (D7)	=			ved Soils (· <u></u>	ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial I Stained Leaves (B9)	magery (67) [Thin Muck Other (Exp		` '			low Aquitard (D3) -Neutral Test (D5)
Field Obse		l	Other (EX	naiii iii ix	emarks)		ПЛО	Tredital Test (DS)
		es No 💽	Depth (in	ches).				
Water Table		es No (•		· —				
Saturation I		es O No 💽		· · ·				
	apillary fringe)	es No (Dopui (iii	onco)		Wetl	and Hydrology P	resent? Yes No
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge		City/Coun	ty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W21		
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conc	ave	Slop	pe (%):5	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	725628		Long:-121.77545	8	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ar? Yes (No ((If no, explain	in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If n	eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point l	ocations, transe	cts, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
		bsolute		t Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	<u>.</u>	% Cover	Species	Status_	Number of Domina				(*)
1				_	That Are OBL, FA	CW, or FA	C: 3		(A)
2. 3.					Total Number of D Species Across Al		4		(B)
4					Percent of Domina	nt Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	of:	Multiply	y by:	_
3.					OBL species	25	x 1 =	25	
4.					FACW species	20	x 2 =	40	
5.					FAC species		x 3 =	0	
Liante Christians	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum 1.Navarretia leucocephala		20	Yes	OBL	UPL species		x 5 =	0	
2. Deschampsia danthonioides		20	Yes	FACW	Column Totals:	55	(A)	105	(B)
3. Bromus hordeaceous		10	Yes	FACU	Prevalence I	ndex = B/	/A =	1.91	
4. Lasthenia fremontii		5	Yes	OBL	Hydrophytic Vege	etation In	dicators:		
5.					X Dominance Te	est is >509	%		
6.					× Prevalence In				
7.					Morphological	Adaptatio	ons ¹ (Provide on a separate	supportir	ng
8.					- Problematic H				١
Wasdy Vina Stratum	Total Cover:	55 %			- Troblematic H	yuropriyii	vegetation	(Explain	,
Woody Vine Stratum 1.					¹ Indicators of hydr	ic soil and	d wetland hyd	drology r	nust
2.					be present.		•		
	Total Cover:	%		_	Hydrophytic Vegetation				
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes •	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W21}$

Profile Des	cription: (Describe t	o the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of ir	ndicators.)				
Depth	Matrix			k Feature	es							
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	2.5 YR 3/3	99 <u>2.5 Y</u>]	R 3/6	1	C	<u>M</u>	Gravelly clay loam					
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr	rains ² L	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all LRRs, unl	ess otherwise	noted.)			Indicators for P	roblematic Hydric Soils: 3				
Histoso	ol (A1)		Sandy Redo	x (S5)				(A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	` ,				(A10) (LRR B)				
	Histic (A3)		Loamy Muc				Reduced V	· /				
	en Sulfide (A4)		Loamy Gley					t Material (TF2)				
	ed Layers (A5) (LRR C	[_	Depleted M	, ,			U Other (Exp	lain in Remarks)				
	luck (A9) (LRR D) ed Below Dark Surface	\(\(\Delta\)	Redox Dark Depleted Da		` '							
	Park Surface (A12)	(A11)	Redox Depi		` '		3 Indicators of hy	ydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Pool		(. 0)		wetland hydrology must be present.					
	Gleyed Matrix (S4)			- (- /			unless distri	buted or problematic				
Restrictive	Layer (if present):											
Type:du	ripan											
Depth (ii	nches):4						Hydric Soil Pres	sent? Yes ● No ○				
Remarks:												
	201											
HYDROLO												
_	ydrology Indicators:						Casandan	. In disease (O en enema no enviro d)				
	icators (minimum of or	<u>ne required; chec</u>						Indicators (2 or more required)				
	e Water (A1)	Ĺ	Salt Crust	` '				r Marks (B1) (Riverine)				
	ater Table (A2)	Ĺ	Biotic Crus	' '				nent Deposits (B2) (Riverine)				
	tion (A3)	Ĺ	Aquatic In					Deposits (B3) (Riverine)				
	Marks (B1) (Nonriveri		Hydrogen		, ,			age Patterns (B10)				
	ent Deposits (B2) (Non		_		•	Living Roc	` ,	eason Water Table (C2)				
	eposits (B3) (Nonriver	ine)	Presence		`	,		sh Burrows (C8)				
	e Soil Cracks (B6)		=			ved Soils (0	· <u>—</u>	ation Visible on Aerial Imagery (C9)				
	tion Visible on Aerial Ir	nagery (B7)	Thin Muck		, ,			ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	olain in K	emarks)		X FAC-I	Neutral Test (D5)				
Field Obse		No O	Danth (in	-1								
		es No No	Depth (in	′ —								
Water Table		es No 💿	Depth (in	· —								
Saturation I	Present? Ye γ_{ϵ}	es O No 💿	Depth (in	ches):		Wetla	and Hydrology Pre	esent? Yes No				
`	ecorded Data (stream	gauge, monitorin	g well, aerial p	ohotos, p	revious ins	spections),	if available:					
Remarks:												

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W22			
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E				
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):sligh	tly concar	ve Slop	oe (%):3		
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	725346		Long:-121.77005	50	Datum: WGS 84			
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	assification:	Wet meado	W		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remarl	rs.)			
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	l? Are	"Normal Circumstan	ces" preser	nt? Yes 💿	No	\circ	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic	? (If ne	eeded, explain any a	nswers in F	Remarks.)			
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point le	ocations, transe	ects, imp	ortant fea	atures,	etc.	
Hydrophytic Vegetation Present?	Yes No									
Hydric Soil Present?	_		Is	the Sampled	d Area					
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘			
Remarks:										
VEGETATION										
		Absolute		nt Indicator	Dominance Test	workshee	i:			
Tree Stratum (Use scientific names.)	_	% Cover	Species	? Status	Number of Domin				(4)	
1. 2.			-		That Are OBL, FA	CW, or FA	C: 2		(A)	
3.					Total Number of D Species Across A		3		(B)	
4.				- -	_				(6)	
	Total Cover:	%		<u> </u>	Percent of Domina That Are OBL, FA			.7 % ((A/B)	
Sapling/Shrub Stratum								70	, , , ,	
1				_	Prevalence Index Total % Cove		et: Multiply	, by:		
2. 3.					OBL species	1 01.	x 1 =	0		
4.					FACW species		x 2 =	0		
5.				_	FAC species	65	x 3 =	195		
	Total Cover:	%			FACU species	35	x 4 =	140		
Herb Stratum		•	**		UPL species		x 5 =	0		
1 Hordeum marinum gussoneanum	!	30	Yes	FAC	Column Totals:	100	(A)	335	(B)	
2. Festuca perennis 3. Leontodon saxatillis		30	$\frac{\text{Yes}}{\text{Yes}}$	FAC FACU	Prevalence	Index = B/	A =	3.35		
4. Centromadia fitchii		15	$\frac{1cs}{No}$	FACU FACU	Hydrophytic Veg	etation Inc	licators:			
5.Rumex crispus		5	No	FAC	X Dominance T	est is >50%	, o			
6.			-		Prevalence Ir	dex is ≤3.0	1			
7.					Morphologica	l Adaptatio	ns ¹ (Provide n a separate	supportir	ng	
8.					- Problematic H)	
Woody Vine Stratum	Total Cover:	100%			i robiematio i	туагорттупо	vegetation	(Explain)	,	
					¹ Indicators of hyd	ric soil and	wetland hyd	drology r	nust	
1. 2.					be present.					
	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum 0	% Cover	of Biotic C	Crust	%	Vegetation Present?	Yes	No C			
Remarks:					1					

Profile Des	scription: (Describe t	o the depth nee	ded to docun	nent the	indicator	or confirr	n the absence of	indicators.)
Depth	Matrix			Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	5 YR 3/2			15	<u>C</u>	<u>M</u>	Clay loam	
		2.5 Y	R 3/6	10	<u>C</u>	<u>PL</u>	Clay loam	-
								-
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	=Cover	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso	ol (A1)		Sandy Redox					k (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	, ,				k (A10) (LRR B)
	Histic (A3) gen Sulfide (A4)		Loamy Mucl					Vertic (F18) nt Material (TF2)
	ed Layers (A5) (LRR C	,	Depleted Ma					plain in Remarks)
	Muck (A9) (LRR D)	´	Redox Dark	,	,			, , ,
	ed Below Dark Surface	(A11)	Depleted Da		, ,		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	<u>></u>	Redox Depr		(F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Pool	s (F9)				tributed or problematic
	Layer (if present):							
Type:	, , , ,							
Depth (ii	nches):						Hydric Soil Pr	esent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland H	ydrology Indicators:							
Primary Ind	licators (minimum of or	ne required; che	k all that apply	y)				ry Indicators (2 or more required)
Surface	e Water (A1)	[Salt Crust	(B11)			Wat	er Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Crus					iment Deposits (B2) (Riverine)
l 🖳	tion (A3)		Aquatic Inv					Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri		Hydrogen :		. ,	Listan Da	= =	nage Patterns (B10)
==	ent Deposits (B2) (Non eposits (B3) (Nonriver i		Oxidized R		_	_	` / 🗀 -	Season Water Table (C2) rfish Burrows (C8)
	e Soil Cracks (B6)	[[Recent Iron		•	•		ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck					low Aquitard (D3)
=	Stained Leaves (B9)		Other (Exp		` '			-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es O No 💿	Depth (inc	ches):				
Water Table	e Present? Ye	es O No 💿	Depth (inc	ches):				
Saturation I	Present? Ye apillary fringe)	es O No 💿	Depth (inc	ches):		Wet	land Hydrology P	resent? Yes No
	ecorded Data (stream	gauge, monitorir	ıg well, aerial p	ohotos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W23		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	725346		Long:-121.77005	0 Datum:WGS 84			84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hyd	drology siç	gnificantly	disturbed	l? Are	"Normal Circumstand	es" prese	nt? Yes	No (\bigcirc
			oblematic?		eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Atta					ocations, transe	cts, im	oortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	_		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No O		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominar	nt Indicator	Dominance Test	workshoe			
Tree Stratum (Use scientific names.)				? Status	Number of Domina				
1			_		That Are OBL, FAC			((A)
2					Total Number of D	ominant			
3					Species Across All		3	((B)
4					Percent of Domina	nt Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAG	CW, or FA	C: 100	0.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	of:	Multiply	y by:	
3.			-		OBL species	5	x 1 =	5	
4.					FACW species	15	x 2 =	30	
5					FAC species	60	x 3 =	180	
Herb Stratum	Total Cover:	%			FACU species	15	x 4 =	60	
1.Hordeum marinum gussoneanum		30	Yes	FAC	UPL species	0.7	x 5 =	0	(D)
2. Festuca perennis		30	Yes	FAC	Column Totals:	95	(A)	275	(B)
3.Ranunculus muricatus		15	Yes	FACW	Prevalence I	ndex = B	'A =	2.89	
4. Leontodon saxatillis		15	No	FACU	Hydrophytic Vege	etation In	dicators:		
5.Navarretia leucocephala		5	No	OBL	X Dominance Te				
6					× Prevalence In				
7					Morphological data in Rer	Adaptation narks or c	ns" (Provide n a separate	supporting sheet)	ng
8				_	Problematic H)
Woody Vine Stratum	Total Cover:	95 %							
1					¹ Indicators of hydr	ic soil an	d wetland hyd	drology n	nust
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 5	% Cover	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C		
Remarks:									

SOIL Sampling Point: $\underline{W23}$

Profile Des	scription: (Describe t	o the depth ne	eded to docun	nent the	indicator	or confir	m the absence o	of indicators.)			
Depth	Matrix			Feature		. 2	- .	5			
(inches)	Color (moist)		olor (moist)	%_	Type ¹	Loc ²	Texture	Remarks			
0-5	5 YR 3/2	90 2.5 Y	ZR 3/6		C	<u>M</u>	Clay loam				
	_	2.5 Y	YR 3/6	3	C	PL	Clay loam				
	_										
¹ Type: C=0	Concentration, D=Depl	etion, RM=Red	uced Matrix. CS	=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applicable	e to all LRRs, ur	nless otherwise	noted.)			Indicators fo	or Problematic Hydric Soils: ³			
Histoso	ol (A1)		Sandy Redox	(S5)				uck (A9) (LRR C)			
Histic E	Epipedon (A2)		Stripped Ma	. ,			2 cm Mi	uck (A10) (LRR B)			
	Histic (A3)		Loamy Mucl	-	. ,		<u> </u>	d Vertic (F18)			
	gen Sulfide (A4)	, [Loamy Gley					rent Material (TF2)			
	ed Layers (A5) (LRR C	[Depleted Ma	` '	,		Other (E	Explain in Remarks)			
	/luck (A9) (LRR D) ed Below Dark Surface	\ (A11) \	Redox Dark Depleted Da		, ,						
I 🗀 ·	oark Surface (A12)	(A11) [Redox Depr		, ,			of hydrophytic vegetation and			
l <u>—</u>	Mucky Mineral (S1)	Ľ	Vernal Pools		(1 0)		wetland hydrology must be present.				
	Gleyed Matrix (S4)	L		` ,			unless distributed or problematic				
Restrictive	Layer (if present):										
Type:											
Depth (i	nches):		-				Hydric Soil F	Present? Yes No			
Remarks:	<u> </u>										
HYDROL	OGY										
Wetland H	ydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; che	ck all that apply	/)			Second	lary Indicators (2 or more required)			
Surface	e Water (A1)		Salt Crust	(B11)			W	ater Marks (B1) (Riverine)			
High W	/ater Table (A2)		Biotic Crus	t (B12)			Se	ediment Deposits (B2) (Riverine)			
	tion (A3)		Aquatic Inv	ertebrat	es (B13)		Dri	ift Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide (Odor (C1)		Dra	ainage Patterns (B10)			
Sedime	ent Deposits (B2) (Nor	riverine)	Oxidized R	hizosph	eres along	Living Ro	ots (C3) Dr	y-Season Water Table (C2)			
Drift De	eposits (B3) (Nonriver	ine)	Presence of	of Reduc	ced Iron (C	4)	Cra	ayfish Burrows (C8)			
X Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Sa	turation Visible on Aerial Imagery (C9)			
Inunda	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)		☐ Sh	allow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		 FA	.C-Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	es No (Depth (inc	ches):							
Water Table	e Present? Ye	es No (Depth (inc	ches):							
Saturation		es O No (· · ·							
(includes ca	apillary fringe)			· —				Present? Yes No			
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial p	hotos, p	revious ins	spections)	, if available:				
Remarks:											

Project/Site: The Valley's Edge	City/Cour	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W24		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724324		Long:-121.77354	ļ7	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	assification	:Vernal poo	1	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstan		,	No 🔘	
			oblematic?		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	atures et	c
	·		Jampii	ng ponit it	ocations, transc	,013, 1111	Jortant ree		
Hydrophytic Vegetation Present?	_								
Hydric Soil Present? Wetland Hydrology Present?	_			the Sampled					
Remarks:	res 🕒 No		WI	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
		Absolute	Dominar	nt Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	<u> </u>	% Cover	Species'	? Status	Number of Domina				
1				_	That Are OBL, FA	CW, or FA	C: 3	(A)	
2					Total Number of D			(5)	
3				_	Species Across A	II Strata:	3	(B)	
4	Total Cover:	%			Percent of Domina That Are OBL, FA			0	٥,
Sapling/Shrub Stratum	Total Cover.	/0			That Are OBL, FA	CVV, OI FA	ic. 100	0.0 % (A/E	3)
1					Prevalence Index				
2					Total % Cove		Multiply		
3					OBL species	25	x 1 =	25 80	
4				- -	FACW species FAC species	40	x 2 = x 3 =	0	
5	Total Cover:	%		_	FACU species	10	x 4 =	40	
Herb Stratum	Total Gover.	/0			UPL species	10	x 5 =	0	
1.Hordeum marinum gussoneanum	ļ.	20	Yes	OBL	Column Totals:	75	(A)		(B)
2. Festuca perennis		20	Yes	FACW			, ,		
3. Deschampsia danthonioides		15	Yes	FACW	Prevalence			1.93	
4.Lasthenia fremontii		5	No	FACW	Hydrophytic Veg X Dominance T				
5. Plagiobothrys stipitatus		5	No	OBL	× Prevalence In				
6.Bromus hordeaceous		5	No No	FACU	Morphologica			supporting	
7. Festuca myuros 8.		3	INO	FACU	data in Re	marks or c	n a separate	sheet)	
o	Total Cover:	75		- -	Problematic F	Hydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	75 %							
1				_	Indicators of hyd be present.	ric soil and	d wetland hyd	drology mus	st
2	T / 10			<u> </u>	-				
	Total Cover:	%			Hydrophytic Vegetation				
	5 % Cover 6	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No 🖯	ı	
Remarks:									

Profile Des	cription: (Describe to	the depth ne	eded to docur	nent the	indicator	or confirm	the absence of	indicators.)
Depth	Matrix	o allo dopan no		Feature		0. 00		
(inches)	Color (moist)	% C	olor (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	/R 3/6	5	C	PL	Gravelly clay loam	
	·							
¹ Type: C=C	Concentration, D=Deple	etion, RM=Red	uced Matrix. CS	S=Covere	ed or Coate	d Sand Gr	ains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all LRRs, u	nless otherwise	noted.)			Indicators for I	Problematic Hydric Soils: 3
Histoso		[Sandy Redox	` '				k (A9) (LRR C)
	pipedon (A2)	Ĺ	Stripped Ma	` '				k (A10) (LRR B)
	listic (A3)	Ĺ	Loamy Muc					Vertic (F18) nt Material (TF2)
	en Sulfide (A4) ed Layers (A5) (LRR C)	, <u> </u>	Loamy Gley Depleted Ma				<u></u>	plain in Remarks)
	uck (A9) (LRR D)	' [Redox Dark	` '			Other (EX	plain in Nomarka)
	ed Below Dark Surface	(A11)	Depleted Da		` '			
Thick D	ark Surface (A12)		Redox Depi	essions	(F8)			nydrophytic vegetation and
Sandy	Mucky Mineral (S1)	[∨ Vernal Pool	s (F9)				drology must be present.
	Gleyed Matrix (S4)						uniess dist	ributed or problematic
	Layer (if present):							
Type:			_					
Depth (ir	nches):						Hydric Soil Pre	esent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
Primary Ind	icators (minimum of on	e required; che	eck all that apply	y)			Secondar	ry Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Saturat	ion (A3)		Aquatic Inv	ertebrat	es (B13)		Drift	Deposits (B3) (Riverine)
X Water I	Marks (B1) (Nonriverin	ie)	Hydrogen	Sulfide C	Odor (C1)		Drair	nage Patterns (B10)
=	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Roo	ts (C3) Dry-9	Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ne)	Presence	of Reduc	ed Iron (C4	1)	Cray	fish Burrows (C8)
X Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plow	ed Soils (C	C6) Satu	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial Im	nagery (B7)	Thin Muck	Surface	(C7)		Shall	low Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		X FAC-	-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s 🔘 No 🤄	Depth (inc	ches):				
Water Table	e Present? Ye	s O No (Depth (inc	ches):				
Saturation F (includes ca	Present? Ye pillary fringe)	s No (Depth (inc	ches):		Wetla	and Hydrology P	resent? Yes No
Describe Re	ecorded Data (stream of	gauge, monitor	ing well, aerial p	hotos, p	revious ins	pections), i	if available:	
Remarks:								

Project/Site: The Valley's Edge	City/Cour	ty:Butte		San	npling Date: 1	1/11/14	·		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W25		
Investigator(s): D. Machek, E. Gregg			Section,	Гownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	 e		Local reli	ef (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7			Long:-121.77354		Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,					_		:Vernal poo		
Are climatic / hydrologic conditions on the		•	ar? Vec	No (
					"Normal Circumstan		,	No	
			disturbed			•		No	
Are Vegetation Soil or Hyd	drology na	turally pro	oblematic?	' (If ne	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sh	nowing	sampli	ng point l	ocations, transe	ects, im	portant fea	ıtures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_	le	the Sampled	1 Δτορ				
Wetland Hydrology Present?	Yes No			thin a Wetla		•	No O		
Remarks:			1	timi a vvetia	100		110		
VEGETATION									
		Absolute		t Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	Status_	Number of Domina				
1				_	That Are OBL, FA	CW, or FA	C: 4		(A)
2					Total Number of D				
3					Species Across A	ll Strata:	4		(B)
4		0/		-	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	/ by:	-
3.					OBL species	25	x 1 =	25	
4					FACW species	40	x 2 =	80	
5					FAC species		x 3 =	0	
Horb Strotum	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		20	Yes	OBL	UPL species		x 5 =	0	
1. Hordeum marinum gussoneanum 2. Festuca perennis		20	Yes	FACW	Column Totals:	75	(A)	145	(B)
3. Deschampsia danthonioides		10	Yes	FACW	Prevalence	Index = B	/A =	1.93	
4. Lasthenia fremontii		10	Yes	FACW	Hydrophytic Veg	etation In	dicators:		
5. Plagiobothrys stipitatus		5	No	OBL	X Dominance T	est is >509	%		
6.Bromus hordeaceous		5	No	FACU	× Prevalence In	dex is ≤3.	01		
7.Festuca myuros		5	No	FACU	Morphologica	l Adaptatio	ons ¹ (Provide	supporti	ng
8.					I		n a separate		
	Total Cover:	75 %			Problematic F	Hydrophyti	c Vegetation'	(Explain)
Woody Vine Stratum		70 70			11. Parton of boot		dd bd	da a la ancio	
1					¹ Indicators of hyd be present.	ric soil an	a wetiana nyo	rology r	nust
2			-	-	_				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum25	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No 🔘		
Remarks:									

SOIL Sampling Point: $\underline{W25}$

Profile Des	scription: (Describe	to the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of	indicators.)				
Depth	Matrix		Redo	x Feature								
(inches)	Color (moist)	% Col	or (moist)	%_	Type ¹	Loc ²	Texture	Remarks				
0-4	2.5 YR 3/3	97 2.5 Y	R 3/6	_ 3	C	PL	Gravelly clay loam					
	-											
	<u> </u>											
		- <u> </u>										
¹ Type: C=0	Concentration, D=Dep	letion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr		Location: PL=Pore Lining, M=Matrix.				
	Indicators: (Applicable	le to all LRRs, un	_					Problematic Hydric Soils: 3				
Histoso	` '		Sandy Redo	. ,				k (A9) (LRR C)				
	Epipedon (A2) Histic (A3)		Stripped Ma	` ,				k (A10) (LRR B) Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley	-	. ,		_	nt Material (TF2)				
	ed Layers (A5) (LRR ()	Depleted M					plain in Remarks)				
	luck (A9) (LRR D)	´ _	Redox Dark	Surface	(F6)		` `	,				
	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and				
	Dark Surface (A12)		Redox Dep		(F8)			drology must be present.				
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	s (F9)			unless distributed or problematic					
	Layer (if present):											
Type:	Layer (ii present).											
Depth (ii	nches).						Hydric Soil Pro	esent? Yes (•) No (
Remarks:							Trydric doi: 11	res (No				
rtomanto.												
HYDROLO												
Wetland Hy	ydrology Indicators:											
Primary Ind	licators (minimum of o	ne required; ched	k all that appl	y)				ry Indicators (2 or more required)				
Surface	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)				
High W	/ater Table (A2)		Biotic Crus	, ,				ment Deposits (B2) (Riverine)				
	tion (A3)		Aquatic In				<u> </u>	Deposits (B3) (Riverine)				
	Marks (B1) (Nonriver i		Hydrogen					nage Patterns (B10)				
=	ent Deposits (B2) (No		_		_	Living Roc	` / 📃	Season Water Table (C2)				
	eposits (B3) (Nonriver	rine) [ed Iron (C	⁴⁾ ved Soils ((fish Burrows (C8)				
	e Soil Cracks (B6) tion Visible on Aerial I	magany (B7)	Thin Muck			ved Solis (C		ration Visible on Aerial Imagery (C9) low Aquitard (D3)				
	Stained Leaves (B9)	magery (br)	Other (Exp		` '			-Neutral Test (D5)				
Field Obse	. ,	L		, , , , , , , , , , , , , , , , , , ,	- Ciriarito)			1100.101 (20)				
		es No 💿	Depth (in	ches):								
Water Table		es No 💿	Depth (in	′ —								
Saturation I	_	es O No •	Depth (in	· · ·								
(includes ca	apillary fringe)						and Hydrology P	resent? Yes No				
Describe R	ecorded Data (stream	gauge, monitoring	g well, aerial	photos, p	revious ins	spections),	if available:					
Remarks:												

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W26		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace			Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	723412		Long:-121.77459	6	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the	*	•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (\bigcirc
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta							,	atures.	etc.
	·			9 po					
Hydrophytic Vegetation Present? Hydric Soil Present?	_			the Commiss	I A				
Wetland Hydrology Present?	_			the Sampled ithin a Wetla			No O		
Remarks:	103 (110		W	itnin a wetia	na? res		NO U		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.	_	76 COVEL	Opecies	: Status	Number of Domina That Are OBL, FA			((A)
2.					-	•	2		., .,
3.				_	 Total Number of D Species Across Al 		2	((B)
4.					- ' - Percent of Domina		c	,	,
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 %	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.			-		OBL species	5	x 1 =	5	
4.					FACW species	10	x 2 =	20	
5					FAC species	65	x 3 =	195	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		45	V	P. 6	UPL species		x 5 =	0	
1. Festuca perennis		45 20	Yes Yes	FAC	Column Totals:	90	(A)	260	(B)
2.Hordeum marinum gussoneanum 3.Deschampsia danthonoides		10	No	FAC FACW	Prevalence I	ndex = B/	'A =	2.89	
4.Bromus hordeaceus		10	No	FACU	Hydrophytic Veg	etation In	dicators:		
5.Navarretia leucocephala		5	No	OBL	X Dominance Te				
6.				<u> </u>	× Prevalence In	dex is ≤3.	01		
7.				_	Morphological	Adaptatio	ons ¹ (Provide	supportin	ıg
8.							n a separate	,	
	Total Cover:	90 %			Problematic H	iyaropnyti	c vegetation	(Explain)	1
Woody Vine Stratum					¹ Indicators of hydr	ic soil an	d wetland hy	drology m	nust
1. 2.					be present.	io son an	a welland ny	arology ii	iust
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum 10) % % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	ļ
Remarks:									

Profile Des	scription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	97 2.5 Y	R 3/6	3	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	-							
	-							-
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	iced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I DDs un	loss othorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all EKKs, ul	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)	F	Stripped M	` '				ck (A10) (LRR B)
Black F	Histic (A3)		Loamy Mud	cky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle					ent Material (TF2)
	ed Layers (A5) (LRR C) _	Depleted M	` '	•		Other (Ex	cplain in Remarks)
l	luck (A9) (LRR D)	(0.14)	Redox Dar		. ,			
	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D Redox Dep		, ,		3 Indicators of	hydrophytic vegetation and
🗀	Mucky Mineral (S1)	F	Vernal Poo		(10)		wetland hy	drology must be present.
	Gleyed Matrix (S4)	L	_	,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
	ydrology Indicators:							
_	icators (minimum of or	ne required: che	ck all that ann	lv)			Seconda	ry Indicators (2 or more required)
	e Water (A1)	ic required, crie	Salt Crust					ter Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru	` '				iment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)		Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri r	ne)	Hydrogen					nage Patterns (B10)
l <u>—</u>	ent Deposits (B2) (Non				eres along	Living Roo		Season Water Table (C2)
	eposits (B3) (Nonriveri		Presence	of Reduc	ed Iron (C	4)	Cray	rfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	on Reduc	tion in Plov	ved Soils (C6) Satu	uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es O No 💽	Depth (in	iches):				
Water Table	e Present? Ye	es O No 💽	Depth (in	iches):				
Saturation F		es O No 🖲	Depth (in	iches):		Wetl	and Hydrology F	Present? Yes No
	apillary fringe) ecorded Data (stream g	gauge, monitori	ng well, aerial	photos, r	revious ins			resent: les 🕓 NO
	Zata (otrouit)	J , 111	J 5, aonai	,, p		,/,		
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W27		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): fan te	rrace		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723412		Long:-121.77459	6	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on th	1	•	ear? Yes	No (
			disturbed		"Normal Circumstance		,	No 🔿)
			oblematic		eeded, explain any ar	•			
SUMMARY OF FINDINGS - Att							,	aturos o	to
SUMMART OF FRUITINGS - AU	acii site iliap si	ilowing	Sampii	ing point i	ocations, transe	cis, iiii	Jortani 1 c		
Hydrophytic Vegetation Present?	_								
Hydric Soil Present?	_			the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Tromano.									
VEGETATION									
		Absolute		nt Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	_	% Cover	Species	? Status	Number of Domina				
1					That Are OBL, FAC	CW, or FA	C: 3	(A)	1
2					Total Number of D		,	(5)	
3					Species Across All	l Strata:	4	(B)	1
4	Total Cover:	%			Percent of Domina			0 (4.4)	D)
Sapling/Shrub Stratum	Total Cover.	70			That Are OBL, FAG	CVV, OI FA	10. /5.	.0 % (A/E	3)
1					Prevalence Index		et:		
2					Total % Cover		Multiply		
3					OBL species	10	x 1 =	10	
4					FACW species	10	x 2 =	20	
5	T-1-1-0	21			FAC species FACU species	50	x 3 =	150	
Herb Stratum	Total Cover:	%			UPL species	10	x 4 = x 5 =	40	
1.Festuca perennis		35	Yes	FAC	Column Totals:	90			(B)
2.Hordeum marinum gussoneanun	$\overline{\imath}$	15	Yes	FAC	_ Column Totals:	80	(A)	220	(0)
3. Deschampsia danthonioides		10	Yes	FACW	Prevalence I			2.75	
4.Bromus hordeaceus	·	10	Yes	FACU	Hydrophytic Vege	etation In	dicators:		
5.Lasthenia fremontii		5	No	OBL	X Dominance Te				
6.Navarretia leucocephala		5	No	OBL	× Prevalence In				
7					Morphological	Adaptation	ons' (Provide on a separate	supporting sheet)	
8					- Problematic H				
Woody Vine Stratum	Total Cover:	80 %				, , ,		(/	
1.					¹ Indicators of hydr	ic soil and	d wetland hy	drology mu:	st
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 20	0 % Cover o	of Biotic (Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:	70 00 00 10	J. D. 10110 C			. 10001111	103 (5)	140 (
1									

Profile Des	cription: (Describe t	o the depth nee	ded to docu	ment the	indicator	or confirn	n the absence o	f indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	98 <u></u> 2.5 Y	R 3/6	2	<u>C</u>	<u>PL</u>	Gravelly clay loa	<u>m</u>
				_				
								_
Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicators, (Applicable	a to all I BBa un	laga athamuia	noted \			Indicators fo	r Problematic Hydric Soils: ³
Histoso	Indicators: (Applicable (A1)	e to all LKKS, un	Sandy Redo					ick (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,			<u></u>	ick (A10) (LRR B)
	Histic (A3)		Loamy Mud	, ,			Reduced	d Vertic (F18)
	en Sulfide (A4)		Loamy Gle				=	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (E	xplain in Remarks)
l	luck (A9) (LRR D) ed Below Dark Surface	\(\(\lambda\)	Redox Darl Depleted D		. ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Redox Dep		` '		3 Indicators o	f hydrophytic vegetation and
🗀	Mucky Mineral (S1)	_	Vernal Poo		(1 0)		wetland h	nydrology must be present.
Sandy	Gleyed Matrix (S4)		_				unless di	stributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
_	icators (minimum of or	ne required; ched	k all that app	ly)			Second	ary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			Wa	ater Marks (B1) (Riverine)
High W	ater Table (A2)	Ī	Biotic Cru	st (B12)			Se	diment Deposits (B2) (Riverine)
Saturat	tion (A3)	Ī	Aquatic In	vertebrat	es (B13)		Dri	ft Deposits (B3) (Riverine)
X Water I	Marks (B1) (Nonriveri i	ne)	Hydrogen	Sulfide (Odor (C1)		Dra	ninage Patterns (B10)
	ent Deposits (B2) (Non		Oxidized I	Rhizosph	eres along	Living Roo	ots (C3) Dry	-Season Water Table (C2)
	eposits (B3) (Nonriver i	ine)			ced Iron (C			ayfish Burrows (C8)
	e Soil Cracks (B6)		=		tion in Plov	ved Soils (turation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		` '			allow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		× FA	C-Neutral Test (D5)
Field Obse		No C	Donth (in	oboo).				
		es No No No		· -				
Water Table		es No		· -				
Saturation F (includes ca	Present? Ye apillary fringe)	es O No 💿	Depth (in	icnes):		Wetl	land Hydrology	Present? Yes No
	ecorded Data (stream	gauge, monitorir	g well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W28		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7			Long:-121.77459		Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,					_		:Vernal swa		
Are climatic / hydrologic conditions on the		•	ar? Vec	No (
					"Normal Circumstan			No (
			disturbed			•		No (
Are Vegetation Soil or Hy	drology na	iturally pro	oblematic [*]	? (If no	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ing point l	ocations, transe	ects, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?			le	the Sample	I Area				
Wetland Hydrology Present?	_			ithin a Wetla		•	No (
Remarks:				itiiii a vvetta	163		110		
VEGETATION									
T 0: 11 : 17		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	_	% Cover	Species	? Status	Number of Domin			,	(4)
1					That Are OBL, FA	CVV, or FA	C: 2	(.	(A)
2			-		Total Number of D		2	,	(D)
[] 					Species Across A	ii Strata:	2	((B)
4	Total Cover:	0/			Percent of Domina				
Sapling/Shrub Stratum	Total Cover.	%			That Are OBL, FA	Cvv, or FA	ic: 100).0 %	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3					OBL species	5	x 1 =	5	
4					FACW species		x 2 =	0	
5					FAC species	60	x 3 =	180	
Herb Stratum	Total Cover:	%			FACU species	25	x 4 =	100	
1.Festuca perennis		35	Yes	FAC	UPL species		x 5 =	0	
2. Hordeum marinum gussoneanum	<u> </u>	25	Yes	FAC	Column Totals:	90	(A)	285	(B)
3. Bromus hordeaceous	·	10	No	FACU	Prevalence	Index = B	/A =	3.17	
4. Leontodon taraxacoides		10	No	FACU	Hydrophytic Veg	etation In	dicators:		
5. Festuca myuros		5	No	FACU	X Dominance T	est is >509	%		
6.Navarretia leucocephala		5	No	OBL	Prevalence In	dex is ≤3.	O ¹		
7.					Morphologica	l Adaptatio	ons ¹ (Provide	supportin	ıg
8.							n a separate	,	
	Total Cover:	90 %			Problematic F	lydrophyti	c Vegetation	(Explain)	1
Woody Vine Stratum		,,,			¹ Indicators of hyd	rio goil on	d watland by	drology n	ouet
1					¹ Indicators of hyd be present.	nc son an	u welland ny	arology II	iust
2									
	Total Cover:				Hydrophytic Vegetation				
% Bare Ground in Herb Stratum10	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:					1				

SOIL Sampling Point: $\underline{W28}$

Profile Des	cription: (Describe to	o the depth	needed to docui	nent the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	<u>98</u> <u>2</u>	.5 YR 3/6		<u>C</u>	<u>PL</u>	Gravelly clay loam	1
							Gravelly clay loam	1
								-
								-
¹ Type: C=C	Concentration, D=Deple	etion, RM=F	Reduced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains 2	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I PP	e unloss othorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		to all LKK	Sandy Redo					ck (A9) (LRR C)
l <u>—</u>	pipedon (A2)		Stripped Ma	. ,				ck (A10) (LRR B)
Black F	listic (A3)		Loamy Muc	ky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gley					nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` '	,		Other (Ex	plain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(Δ11)	Redox Dark Depleted D		. ,			
	Park Surface (A12)	(Д11)	Redox Dep		` '			hydrophytic vegetation and
🗀	Mucky Mineral (S1)		Vernal Poo		(. 0)			drology must be present.
Sandy	Gleyed Matrix (S4)						unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	esent? Yes ● No ○
Remarks:								
HYDROLO	OGY							
	/drology Indicators:							
_	icators (minimum of on	e required:	check all that appl	v)			Seconda	ry Indicators (2 or more required)
	Water (A1)	io roquirou,	Salt Crust					er Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Crus	` '			Sed	iment Deposits (B2) (Riverine)
	ion (A3)		Aquatic In	, ,	es (B13)			Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri r	ne)	Hydrogen					nage Patterns (B10)
1 ==	ent Deposits (B2) (Non		= ' '		eres along	Living Roo	ots (C3) Dry-	Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ne)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shal	llow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse								
Surface Wa	ter Present? Ye		o Depth (in	ches):				
Water Table	Present? Ye	s ON	o Depth (in	ches):				
Saturation F	10	s N	o Depth (in	ches):		Wetl	land Hydrology P	resent? Yes No
	pillary fringe) ecorded Data (stream ç	gauge, mor	itoring well, aerial	photos, p	revious ins			
	, ,					. ,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W29		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724324		Long:-121.77354	ŀ7	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	assification	:Vernal poo	1	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstan		,	No (\circ
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ng ponit i	Julions, transe	ecis, iiii	portant lea		eic.
Hydrophytic Vegetation Present?	_								
Hydric Soil Present?	_			the Sample		_			
Wetland Hydrology Present? Remarks:	Yes No		wi	ithin a Wetla	nd? Yes	•	No C		
VEGETATION		haaluta	Dominor	nt Indicator	Dominance Test	warkahaa	.4.		
<u>Tree Stratum</u> (Use scientific names.)		Absolute <u>% Cover</u>		? Status	Number of Domini				
1.					That Are OBL, FA			((A)
2.					Total Number of D	Ominant			
3					Species Across A		3	((B)
4					Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.			-		Total % Cove	r of:	Multiply	/ by:	
3.					OBL species	25	x 1 =	25	
4.				_	FACW species	40	x 2 =	80	
5					FAC species		x 3 =	0	
Liank Chrahina	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		20	Yes	OBL	UPL species		x 5 =	0	
1. Hordeum marinum gussoneanum 2. Festuca perennis		20	Yes	FACW	Column Totals:	75	(A)	145	(B)
3. Deschampsia danthonioides		15	Yes	FACW	Prevalence	Index = B	/A =	1.93	
4. Lasthenia fremontii		5	No	FACW	Hydrophytic Veg	etation In	dicators:		
5. Plagiobothrys stipitatus		5	No	OBL	X Dominance T	est is >50°	%		
6.Bromus hordeaceous		5	No	FACU	× Prevalence In				
7.Festuca myuros		5	No	FACU	Morphologica	l Adaptatio	ons ¹ (Provide on a separate	supporting	ng
8.					- Problematic H				١
Woody Vino Stratum	Total Cover:	75 %			Troblematic r	iyaropityti	o vegetation	(Explain)	,
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil an	d wetland hyd	drology n	nust
2.					be present.		,	07	
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 25	5 % % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C		
Remarks:									
l .									

SOIL Sampling Point: $\underline{W29}$

Profile Des	cription: (Describe to	o the depth nee	ded to docu	ment the	indicator	or confirn	n the absence o	f indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	95 <u>2.5 Y</u>	R 3/6	5	<u>C</u>	<u>PL</u>	Gravelly clay loa	<u>m</u>
	-							
1= 0.0			I Matria O					2 Locations DL Doro Lining M Moteix
Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand Gi	rains	² Location: PL=Pore Lining, M=Matrix.
Hvdric Soil	Indicators: (Applicable	e to all LRRs. un	less otherwise	noted.)			Indicators fo	r Problematic Hydric Soils: 3
Histoso			Sandy Redo					ick (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mu	ick (A10) (LRR B)
	listic (A3)		Loamy Mud					d Vertic (F18)
	en Sulfide (A4)		Loamy Gle					ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` '	•		Other (E	xplain in Remarks)
	luck (A9) (LRR D)	(//11)	Redox Dark		` '			
· — ·	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		, ,		3 Indicators o	f hydrophytic vegetation and
	Mucky Mineral (S1)	Ľ ∑	Vernal Poo		(10)		wetland h	nydrology must be present.
	Gleyed Matrix (S4)	[2]	<u> </u>	()			unless di	stributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Remarks:							1	
HYDROLO)GY							
	/drology Indicators:							
1	icators (minimum of or	o required: chec	sk all that ann	(v)			Second	ary Indicators (2 or more required)
	*	<u>ie required, cried</u>	Salt Crust	**				ater Marks (B1) (Riverine)
🖳	e Water (A1) 'ater Table (A2)	L T	Biotic Crust	` '				diment Deposits (B2) (Riverine)
l 🖳 🐧	ion (A3)	L T	Aquatic In	. ,	oc (B13)			ft Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri r		Hydrogen					ainage Patterns (B10)
🖳	ent Deposits (B2) (Non	· ·	= -		eres along	Living Roc	= =	y-Season Water Table (C2)
	eposits (B3) (Nonriveri		=		ced Iron (C	_	` / 🖃 -	ayfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	e) [tion in Plov			turation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	L nagery (B7)	Thin Muck			vou cono (allow Aquitard (D3)
=	Stained Leaves (B9)		Other (Exp		` '			C-Neutral Test (D5)
Field Obse		L						
Surface Wa	ter Present? Ye	es No 💿	Depth (in	ches):				
Water Table	e Present? Ye	s No (•		ches):				
Saturation F	Present? Ye	es O No 💿		ches):				
	apillary fringe)						and Hydrology	Present? Yes (•) No (
Describe Re	ecorded Data (stream g	gauge, monitorir	ig weii, aerial	pnotos, p	revious ins	spections),	ii avaiiabie:	
Domorto								
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W30		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, F	R 2E	_		
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	lief (concave,	convex, none):conca	ive	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723412		Long:-121.77459	6	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstance		,	No (\circ
			oblematic		eeded, explain any ar	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	atures	etc
			Jampii	ng pome i		0.0,			
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No			the Sampled		<u> </u>	No. O		
Remarks:	165 0 100		W	ithin a Wetla	na? Yes		No (
VEGETATION									
Troc Stratum (Has aciantific names)		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	_2	% Cover	Species	? Status	Number of Domina That Are OBL, FAC				(A)
1. 2.			-		-	•	ic. 3	(,^)
3.				_	Total Number of D Species Across All		3		(B)
4.					_				(,,,
	Total Cover:	%			Percent of Domina That Are OBL, FAC).0 %	(A/B)
Sapling/Shrub Stratum								.0 /0 (
1					Prevalence Index				
2					OBL species	20	Multiply x 1 =	20	
3. 4.				_	FACW species	20	x 1 = x 2 =	40	
5.					FAC species	40	x 3 =	120	
	Total Cover:	%			FACU species	5	x 4 =	20	
Herb Stratum					UPL species		x 5 =	0	
1. Festuca perennis		20	Yes	FAC	Column Totals:	85	(A)	200	(B)
2 Hordeum marinum gussoneanum		20	Yes	FAC	Prevalence li	ndov – P	/Λ _	2.35	
3.Deschampsia danthonioides		20	Yes	FACW	Hydrophytic Vege			2.55	
4. Lasthenia fremontii		10	No	OBL	Dominance Te				
5.Navarretia leucocephala 6.Bromus hordeaceus		10 5	No No	OBL FACU	× Prevalence Inc				
7.			-140		Morphological			supportir	ng
8.				_	data in Rer	narks or c	n a separate	sheet)	
	Total Cover:	85 %			Problematic H	ydrophyti	c Vegetation ¹	(Explain))
Woody Vine Stratum		05 %			1				
1				_	Indicators of hydr be present.	ic soil an	d wetland hy	drology n	nust
2				_	_				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	% Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:					•				

Profile Des	scription: (Describe	to the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of	indicators.)			
Depth	Matrix		Redo	x Feature							
(inches)	Color (moist)	% Col	or (moist)	%_	Type ¹	Loc ²	Texture	Remarks			
0-4	2.5 YR 3/3	97 2.5 Y	R 3/6	_ 3	C	PL	Gravelly clay loam				
	-										
	-										
	<u> </u>										
		- <u> </u>									
¹ Type: C=0	Concentration, D=Dep	letion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr		Location: PL=Pore Lining, M=Matrix.			
	Indicators: (Applicable	le to all LRRs, un	_					Problematic Hydric Soils: 3			
Histoso	` '		Sandy Redo	. ,			<u> </u>	k (A9) (LRR C)			
	Epipedon (A2) Histic (A3)		Stripped Ma	` ,				k (A10) (LRR B) Vertic (F18)			
	gen Sulfide (A4)		Loamy Gley	-	. ,		_	nt Material (TF2)			
	ed Layers (A5) (LRR ()	Depleted M					plain in Remarks)			
	luck (A9) (LRR D)	´ _	Redox Dark	Surface	(F6)			,			
	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of I	hydrophytic vegetation and			
	Dark Surface (A12)		Redox Dep		(F8)			drology must be present.			
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	s (F9)				ributed or problematic			
	Layer (if present):										
Type:	Layer (ii present).										
Depth (ii	nches).						Hydric Soil Pro	esent? Yes (•) No (
Remarks:							Trydric doi: 110	res (No			
rtomanto.											
HYDROLO											
Wetland Hy	ydrology Indicators:										
Primary Ind	licators (minimum of o	ne required; ched	k all that appl	y)				ry Indicators (2 or more required)			
Surface	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)			
High W	/ater Table (A2)		Biotic Crus	st (B12)				ment Deposits (B2) (Riverine)			
	tion (A3)		Aquatic In				<u></u>	Deposits (B3) (Riverine)			
	Marks (B1) (Nonriver i		Hydrogen					nage Patterns (B10)			
	ent Deposits (B2) (No		=		_	Living Roc	` / 📃	Season Water Table (C2)			
	eposits (B3) (Nonriver	rine) [ed Iron (C	⁴⁾ ved Soils ((fish Burrows (C8)			
	e Soil Cracks (B6) tion Visible on Aerial I	magany (B7)	Thin Muck			ved Solis (C		ration Visible on Aerial Imagery (C9) low Aquitard (D3)			
	Stained Leaves (B9)	magery (br)	Other (Exp		` '			-Neutral Test (D5)			
Field Obse	. ,	L		, , , , , , , , , , , , , , , , , , ,	- Ciriarito)		<u> </u>	1100.101 (20)			
		es No 💿	Depth (in	ches):							
Water Table		es No 💿	Depth (in	′ —							
Saturation I		es O No •	Depth (in	· · ·							
(includes ca	apillary fringe)						and Hydrology P	resent? Yes No			
Describe R	ecorded Data (stream	gauge, monitoring	g well, aerial	photos, p	revious ins	spections),	if available:				
Remarks:											

Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	pling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:V	V31	
Investigator(s): D. Machek, E. Gregg			Section,	Γownship, Ra	ange: S 32, T 22N,	R 3E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723733		Long:-121.77575	55	Datu	m:WGS	84
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	cent slop	oes		NWI cla	assification	Vernal swa	ıle	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No (\circ
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point l	ocations, transe	ects, imp	ortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test				
1.	_				Number of Domin That Are OBL, FA			(,	(A)
2.				_	- - Total Number of D			`	,
3.					Species Across A		2	(1	(B)
4					Percent of Domin	ant Species	3		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 %	A/B)
1.					Prevalence Index	workshee	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3.					OBL species		x 1 =	0	
4.			-		FACW species		x 2 =	0	
5					FAC species	55	x 3 =	165	
Llorb Ctrotum	Total Cover:	%			FACU species	25	x 4 =	100	
Herb Stratum 1.Festuca perennis		35	Yes	FAC	UPL species		x 5 =	0	
2.Hordeum marinum gussoneanum	<u> </u>	20	Yes	FAC	Column Totals:	80	(A)	265	(B)
3. Bromus hordeaceous	-	15	No	FACU	Prevalence	Index = B/	A =	3.31	
4. Festuca myuros		10	No	FACU	Hydrophytic Veg	etation Inc	dicators:		
5.					X Dominance T	est is >50%	6		
6.					Prevalence Ir				
7.					Morphologica	l Adaptatio	ns¹ (Provide n a separate	supportin	ıg
8.					- Problematic I			,	1
Woody Vine Stratum	Total Cover:	80 %			1 Toblematio 1	туагоргтупс	vogetation	(Explair)	
1					¹ Indicators of hydbe be present.	ric soil and	l wetland hy	drology m	nust
2					_				
	Total Cover:	%			Hydrophytic Vegetation				
	0 % Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes •	No C)	
Remarks:									

Profile Des	scription: (Describe t	o the depth nee	ded to docur	nent the	indicator	or confirn	n the absence of	f indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	5 YR 3/3	97 2.5 YI	R 4/8	3	C	<u>PL</u>	Gravelly loam	
								-
	-							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G		² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicable	e to all LRRs, unl	ess otherwise	noted.)				Problematic Hydric Soils: 3
Histoso	• •		Sandy Redo	. ,				ck (A9) (LRR C)
	Epipedon (A2) Histic (A3)		Stripped Ma	` ,				ck (A10) (LRR B) I Vertic (F18)
	gen Sulfide (A4)	<u> </u>	Loamy Gley	-	. ,			ent Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted M				<u></u>	xplain in Remarks)
	luck (A9) (LRR D)	<i>'</i>	Redox Dark	Surface	(F6)			
	ed Below Dark Surface	e (A11)	Depleted D		` ,		3 Indicators of	f hydrophytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			ydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	s (F9)				stributed or problematic
	Layer (if present):							·
Type:	Layer (ii present).							
Depth (ii	nches).						Hydric Soil P	resent? Yes No
Remarks:							Tiyane con i	resent: res © No
rtomanto.								
HYDROLO								
Wetland Hy	ydrology Indicators:							
Primary Ind	licators (minimum of or	ne required; chec	k all that appl	y)				ary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				ater Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Crus				<u> </u>	diment Deposits (B2) (Riverine)
	tion (A3)		Aquatic In					t Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri	· ·	Hydrogen					inage Patterns (B10)
	ent Deposits (B2) (Nor		=		eres along	_	` / 🖳 -	-Season Water Table (C2)
	eposits (B3) (Nonriver e Soil Cracks (B6)	ine)			ced Iron (Cotion in Plov	,		yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial Ir	magery (B7)	Thin Muck			ved Solis (allow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp		` '			C-Neutral Test (D5)
Field Obse	. ,	L						
		es No 💿	Depth (in	ches):				
Water Table		es No 💿	Depth (in	′ —				
Saturation I	_	es O No 💿	Depth (in	· · ·				
(includes ca	apillary fringe)						and Hydrology I	Present? Yes No
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge		City/Cour	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W32		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 3E			
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723733		Long:-121.77575	5	 Datu	m:WGS	84
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	cent slop	oes		NWI cla	ssification	:Vernal swa	.le	
Are climatic / hydrologic conditions on the	e site typical for this	time of ve	ear? Yes	No ((If no, explain	ı in Remaı	 ks.)		
			disturbed		"Normal Circumstand			No (\bigcirc
			oblematic'		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att	<u> </u>						,	atures,	etc.
Hydrophytic Vegetation Present?				<u> </u>	<u> </u>		<u>'</u>		
Hydric Soil Present?	_		le	the Sample	I Area				
Wetland Hydrology Present?	_			ithin a Wetla		•	No O		
Remarks:			100	Tillin a Trotia					
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		nt Indicator	Dominance Test				
Tree Stratum (Use scientific names.) 1.	_2	76 COVEL	Species	? Status	Number of Domina That Are OBL, FA				(A)
2.			-		-		ic. 5	,	(^)
3.					 Total Number of D Species Across Al 		3	- ((B)
4.					-			,	(0)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0%	(A/B)
Sapling/Shrub Stratum								.0 /0 ()
1					Prevalence Index			. 1	
2					Total % Cover		Multiply x 1 =	y by: 5	
3					OBL species FACW species	5 15	x 1 = x 2 =	30	
4. 5.					FAC species	45	x 3 =	135	
J	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum	Total Covol.	70			UPL species	10	x 5 =	0	
1.Festuca perennis		25	Yes	FAC	Column Totals:	75	(A)	210	(B)
2. Hordeum marinum gussoneanum		20	Yes	FAC					, ,
3. Deschampsia danthonioides		15	Yes	FACW	Prevalence I			2.80	
4. Bromus hordeaceous		10	No	FACU	Hydrophytic Vego X Dominance To				
5.Navarretia leucocephala		5	No	OBL	× Prevalence In				
6.					Morphological			supportir	na
7					- data in Rer	marks or c	n a separate	sheet)	.9
o	Total Cover:	75			Problematic H	lydrophyti	c Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover.	75 %							
1					¹ Indicators of hydr	ic soil an	d wetland hy	drology n	nust
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum25	% Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C		
Remarks:					<u>I</u>				

SOIL Sampling Point: $\underline{W32}$

Profile Des	cription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	f indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	5 YR 3/3	97 2.5 Y	TR 4/8	3	<u>C</u>	<u>PL</u>	Gravelly loam	
	-							
	-			-				
	-							
	-							
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	uced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs ur	less otherwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		, то ши <u>п</u> тите, ш	Sandy Redo					ck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped M	atrix (S6)			2 cm Mu	ck (A10) (LRR B)
	listic (A3)		Loamy Mud	ky Miner	al (F1)		Reduced	Vertic (F18)
	en Sulfide (A4)		Loamy Gle					ent Material (TF2)
	ed Layers (A5) (LRR C) _	Depleted M	,	,		Other (E	xplain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	_(Δ11)	Redox Darl Depleted D		, ,			
	ed Below Dark Surface Park Surface (A12)	[[Redox Dep		` '			hydrophytic vegetation and
🗀	Mucky Mineral (S1)	L	Vernal Poo		(10)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)	L		- (- /			unless dis	stributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Remarks:							•	
HYDROLO	OGY							
	drology Indicators:							
_	icators (minimum of or	ne required: che	ck all that app	v)			Seconda	ary Indicators (2 or more required)
	e Water (A1)		Salt Crust					ater Marks (B1) (Riverine)
1 🖳	ater Table (A2)		Biotic Cru	,			☐ Sec	diment Deposits (B2) (Riverine)
<u> </u>	ion (A3)		Aquatic In	, ,	tes (B13)			t Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriverir	ne)	Hydrogen					inage Patterns (B10)
=	ent Deposits (B2) (Non				eres along	Living Roo	=	-Season Water Table (C2)
=	eposits (B3) (Nonriveri		Presence	of Reduc	ced Iron (C	4)	Cra	yfish Burrows (C8)
X Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) X Sat	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		× FAC	C-Neutral Test (D5)
Field Obse		_						
Surface Wa	ter Present? Ye	s No 💽	Depth (in	ches):				
Water Table	e Present? Ye	es O No 💽	Depth (in	ches):				
Saturation F	Present? Ye apillary fringe)	s No 🖲	Depth (in	ches):		Wetl	and Hydrology I	Present? Yes No
	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, p	revious ins			
Remarks:								

Project/Site: The Valley's Edge			City/C	ounty:Butte		Sampling Date: 11/11/14			
Applicant/Owner: B. Brouhard					State: CA	Sa	Sampling Point:W33		
Investigator(s): D. Machek, E. Gregg			Sectio	on, Township, Ra	ange:S 32, T 22N	N, R 2E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local	relief (concave,	convex, none):co	ncave	S	lope (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	72387	1	Long:-121.777332 Datum:WGS 84				
Soil Map Unit Name: Clearhayes-Hams		cent slor	oes		NWI classification:Vernal pool				
Are climatic / hydrologic conditions on the				es (• No (lain in Rema			
		gnificantly			"Normal Circumst		,	No (\circ
		aturally pro			eeded, explain an	·		,	
SUMMARY OF FINDINGS - Att		, ,		,				eatures,	etc.
Hydrophytic Vegetation Present?	Yes No	o (i)							
Hydric Soil Present?	Yes No			Is the Sample	d Area				
Wetland Hydrology Present?	Yes No			within a Wetla	nd? Y	es 💿	No 🔘		
VEGETATION									
		Absolute	Domii	nant Indicator	Dominance Te	st workshe	et:		
Tree Stratum (Use scientific names.)	-	% Cover	Spec	ies? Status	Number of Don				
1					That Are OBL,	FACW, or F	AC:	2 ((A)
3.					Total Number of Species Across			2 ((B)
4					Percent of Dom				
Sapling/Shrub Stratum	Total Cover	: %			That Are OBL,	FACW, or F.	AC: 1(00.0%	A/B)
1.					Prevalence Inc	dex worksh	eet:		
2.					Total % Co	over of:	Multi	ply by:	
3					OBL species		x 1 =	0	
4					FACW species		x 2 =	20	
5					FAC species	55	x 3 =	165	
Herb Stratum	Total Cover:	%			FACU species	15	x 4 =	60	
1.Festuca perennis		30	Yes	FAC	UPL species	0.0	x 5 =	0	(D)
2.Hordeum marinum gussoneanum	<u> </u>	25	Yes	FAC	Column Totals:	80	(A)	245	(B)
3. Deschampsia danthonioides	·	10	No	FACW	Prevalend	ce Index = E	3/A =	3.06	
4.Bromus hordeaceus		10	No	FACU	Hydrophytic V	egetation li	ndicators:		
5. Leontodon taraxacoides		5	No	FACU	× Dominance				
6.						e Index is ≤3			
7							ions¹ (Provid on a separa		ıg
8							ic Vegetation	,)
Woody Vine Stratum	Total Cover:	80 %				,		(=:	
1					¹ Indicators of h be present.	nydric soil ar	nd wetland h	ıydrology m	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 20		of Biotic C		%	Vegetation Present?	Yes () No (\circ	
Remarks:									

SOIL Sampling Point: $\underline{W33}$

Profile De	scription: (Describe to	o the depth ne	eeded to docui	ment the	indicator	or confirr	m the absence of i	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4	5 YR 3/3	95 2.5	YR 4/8	5	<u>C</u>	<u>PL</u>	Gravelly loam				
							Gravelly loam				
	-										
Type: C=	Concentration, D=Deple	etion, RM=Red	luced Matrix. CS	S=Covere	ed or Coate	ed Sand G	irains ²	Location: PL=Pore Lining, M=Matrix.			
Undeia Cail	Indicators, (Applicable	. to all I DDa	mlaaa athamida				Indicators for F	Problematic Hydric Soils: 3			
Histos	Indicators: (Applicable	e to ali LKKS, u	Sandy Redo					(A9) (LRR C)			
l <u>—</u>	Epipedon (A2)		Stripped Ma	, ,				(A10) (LRR B)			
	Histic (A3)		Loamy Muc	. ,				Vertic (F18)			
Hydro	gen Sulfide (A4)		Loamy Gley	yed Matri	x (F2)			nt Material (TF2)			
	ed Layers (A5) (LRR C)	Depleted M	` '			Other (Exp	olain in Remarks)			
	Muck (A9) (LRR D)		Redox Dark		. ,						
	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and			
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		(F8)			drology must be present.			
	Gleyed Matrix (S4)		veinai Poo	is (F9)			unless distributed or problematic				
	Layer (if present):										
Type:	, (р										
Depth (i	inches):		_				Hydric Soil Pre	esent? Yes No			
Remarks:							.,				
	201										
HYDROL											
	ydrology Indicators:			,			Sacandar	u Indicatora (2 or more required)			
	dicators (minimum of or	ne required; ch		-				y Indicators (2 or more required) er Marks (B1) (Riverine)			
l 🛏	e Water (A1)		Salt Crust	` '				, , ,			
l <u>□</u>	Vater Table (A2)		Biotic Crus		(D40)			ment Deposits (B2) (Riverine)			
l <u>—</u>	ition (A3)	,	Aquatic In					Deposits (B3) (Riverine)			
l 🖃	Marks (B1) (Nonrivering	•	Hydrogen		` '	Lista a Da	= -	age Patterns (B10) Season Water Table (C2)			
=	ent Deposits (B2) (Non				eres along	-	(/	` '			
l <u>—</u>	eposits (B3) (Nonriveri	ine)			ced Iron (C	,		ish Burrows (C8)			
=	e Soil Cracks (B6)	(DZ)	_		tion in Plov	vea Solis (` ' 🖳	ration Visible on Aerial Imagery (C9)			
=	ation Visible on Aerial In	nagery (B7)	Thin Muck		` '			ow Aquitard (D3)			
Field Obse	-Stained Leaves (B9)		Other (Exp	Diain in K	emarks)			Neutral Test (D5)			
		es No (Donth (in	choc):							
Saturation (includes c	apillary fringe)	es No (Depth (in	cries)		Wet	land Hydrology Pr	resent? Yes No			
	ecorded Data (stream	gauge, monitor	ring well, aerial	photos, p	revious ins	pections),	, if available:				
Remarks:											

Project/Site: The Valley's Edge	City/Cour	nty:Butte		San	npling Date: 1	1/11/14	1		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W34		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): fan te	rrace		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723871		Long:-121.77733	2	Datum:WGS 84		
Soil Map Unit Name: Clearhayes-Hams		ent slor	oes		NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the				No (
			disturbed		"Normal Circumstand		, _	No	
	- =		oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att							,	atures	etc
	·		Jampii	ing point it		.013, 1111	portant rec		, сто.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No			the Sampled		6			
Remarks:	res (• No		W	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
	F	Absolute	Dominar	nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	9	% Cover	Species	? Status	Number of Domina				
1					That Are OBL, FA	CW, or FA	\C: 4		(A)
2. 3.				_	- Total Number of D Species Across Al		5		(B)
4.					- Percent of Domina	nt Specie	s		
Capling/Chruh Ctratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshe	et·		
2.					Total % Cove		Multiply	v bv:	
3.					OBL species	25	x 1 =	25	_
4.					FACW species	15	x 2 =	30	
5.					FAC species	20	x 3 =	60	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		• 0	**		UPL species		x 5 =	0	
1.Festuca perennis		20	Yes	FAC	Column Totals:	70	(A)	155	(B)
2 Lasthenia fremontii		15	Yes	OBL	Prevalence I	ndex = B	/A =	2.21	
3. Deschampsia danthonioides 4. Bromus hordeaceus		15	Yes	FACW	Hydrophytic Veg			2.21	
5.Navarretia leucocephala		10	Yes Yes	FACU OBL	X Dominance To				
6.		10	168		× Prevalence In				
7.					Morphological	Adaptatio	ons ¹ (Provide	supporti	ing
8.					data in Rei	marks or c	on a separate	sheet)	
	Total Cover:	70 %			Problematic H	lydrophyti	c Vegetation ¹	(Explain	1)
Woody Vine Stratum		70 %			1				
12.				_	¹ Indicators of hydibe present.	ric soil an	d wetland hy	rology ı	must
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 30) % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C		
Remarks:					<u>l</u>				

Profile Des	cription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence	e of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	5 YR 3/2	<u>98</u> <u>2.5 Y</u>	ZR 4/8	2	<u>C</u>	<u>PL</u>	Gravelly loam	
							Gravelly loam	
	-							
	-							
								<u> </u>
¹ Type: C=0	Concentration, D=Deple	etion, RM=Red	uced Matrix. C	S=Covere	ed or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Histoso	Indicators: (Applicable	e to all LRRs, ui	Sandy Redo					for Problematic Hydric Soils: ³ Muck (A9) (LRR C)
l <u>—</u>	Epipedon (A2)	L	Stripped M	, ,				Muck (A10) (LRR B)
	listic (A3)	Ī	Loamy Muc	. ,				ced Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matri	x (F2)		Red F	Parent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	, ,	,		Other	(Explain in Remarks)
l	luck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators	s of hydrophytic vegetation and
🗀	Mucky Mineral (S1)	L	Vernal Poo		(10)		wetlan	d hydrology must be present.
	Gleyed Matrix (S4)	L		- (- /			unless	distributed or problematic
Restrictive	Layer (if present):							
Type:			_					
Depth (ir	nches):						Hydric Soi	il Present? Yes No
Remarks:							·	
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
_	icators (minimum of or	ne required; che	ck all that app	ly)			Seco	ndary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				Water Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)				Sediment Deposits (B2) (Riverine)
Saturat	ion (A3)		Aquatic In	vertebrat	es (B13)			Drift Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriverin	ne)	Hydrogen	Sulfide C	Odor (C1)			Drainage Patterns (B10)
Sedime	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosph	eres along	Living Roo	ots (C3)	Dry-Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)	Presence	of Reduc	ced Iron (C	4)		Crayfish Burrows (C8)
	e Soil Cracks (B6)		=		tion in Plov	ved Soils (Saturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		` '			Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		X	FAC-Neutral Test (D5)
Field Obse		. O N. G	Denth Co	-1				
		es No (′ —				
Water Table		s No (· —				
Saturation F (includes ca	Present? Ye apillary fringe)	es O No 🗨	Depth (in	icnes):		Wetl	and Hydrolog	gy Present? Yes No
	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, p	revious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					Sam	Sampling Point:W35			
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):2	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723198		Long:-121.77731	1	 Datu	ım:WGS	84
Soil Map Unit Name: Clearhayes-Hams		ent slor	oes		NWI cla	ssification	:Seasonal v	vetland	
Are climatic / hydrologic conditions on the				No ((If no, explair	n in Remai			
			disturbed		"Normal Circumstand			No (\circ
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att					. ,		,	aturas	etc
SUMMART OF FINDINGS - ALL		lowing	Sampii	ing point i	ocations, transe	icis, iiii	Jortant le	atures,	CIU.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Tromano.									
VEGETATION									
T 0: 11 : 17		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina				(4)
1				_	That Are OBL, FA	CVV, or FA	C: 2	. ((A)
2				_	Total Number of D			,	(D)
4.				_	Species Across Al	i Strata:	3	, ((B)
	Total Cover:	%			Percent of Domina That Are OBL, FA			5.7 % (Λ/D)
Sapling/Shrub Stratum	rotal Gover.	70						.7 %	(A/B)
1					Prevalence Index				
2					Total % Cove		Multipl		
3					OBL species	5	x 1 =	5 10	
4				_ .	FACW species FAC species	5 45	x 2 = x 3 =	135	
5	Total Cover:	%		_	FACU species	35	x 4 =	140	
Herb Stratum	Total Cover.	%0			UPL species	33	x 5 =	0	
1.Hordeum marinum gussoneanum	ı	25	Yes	FAC	_ Column Totals:	90	(A)	290	(B)
2. Centromadia fitchii		25	Yes	FACU	_ Column Totalo.	70	(7.1)		(-)
3. Festuca perennis	-	20	Yes	FAC	Prevalence I			3.22	
4. Leontodon taraxacoides		10	No	FACU	Hydrophytic Veg				
5. Eryngium castrense		5	No	OBL	X Dominance To				
6.Juncus bufonius		5	No	FACW	Prevalence In Morphologica			aupportir	20
7					data in Re	marks or c	n a separate	supporting sheet)	ig
8	T-1-1-0			_	Problematic F	lydrophytic	C Vegetation	(Explain))
Woody Vine Stratum	Total Cover:	90 %							
1.					¹ Indicators of hyd	ric soil and	d wetland hy	drology m	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 10) % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:								-	
İ									

Profile Des	scription: (Describe to	o the depth nee	eded to docu	ment the	indicator	or confirr	n the absence	of indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		lor (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-5	5 YR 3/2		R 3/6		<u>C</u>	<u>M</u>	Clay loam	
	-							
					-			
1					· 			21
'Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs un	less otherwise	noted)			Indicators	for Problematic Hydric Soils: 3
Histoso			Sandy Redo					Muck (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,				Muck (A10) (LRR B)
_	Histic (A3)		Loamy Mud	ky Miner	al (F1)		Reduc	ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle				=	arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	`	,		Other	(Explain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(A11)	Redox Darl Depleted D		. ,			
	Dark Surface (A12)	[[]	Redox Dep		` ,			of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Poo		` '			d hydrology must be present.
	Gleyed Matrix (S4)						unless	distributed or problematic
	Layer (if present):							
Type:								
Depth (ii	nches):						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; che	ck all that app	y)				ndary Indicators (2 or more required)
Surface	e Water (A1)	[Salt Crust	(B11)			\	Water Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)				Sediment Deposits (B2) (Riverine)
	tion (A3)	[Aquatic In					Orift Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri r		Hydrogen				= -	Orainage Patterns (B10)
=	ent Deposits (B2) (Non				eres along	-		Ory-Season Water Table (C2)
l 	eposits (B3) (Nonriveri	ine) [=		ced Iron (C			Crayfish Burrows (C8)
	e Soil Cracks (B6) tion Visible on Aerial In	nagery (B7)	Thin Muck		tion in Plov	vea Solis (Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
=	Stained Leaves (B9)	liagery (b7) [Other (Ex		, ,			FAC-Neutral Test (D5)
Field Obse	. ,	L	Other (EX		iomarko)		<u></u>	7.6 Heatra Feet (26)
		s No 💿	Depth (in	ches):				
Water Table		es No (•		′—				
Saturation I	_	es O No 💽		· -				
	apillary fringe)							y Present? Yes (•) No (
Describe R	ecorded Data (stream of	yauge, monitorir	ıg weii, aerial	pnotos, p	nevious ins	spections),	, ir avallable:	
Domorko								
Remarks:								

Project/Site: The Valley's Edge		City/Cou	inty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					Sam	Sampling Point:W36		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	_	
Landform (hillslope, terrace, etc.): terrac	e		Local re	elief (concave,	convex, none):conc	ave	Slo	pe (%):3
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	723198		Long:-121.77731	Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	assification	 :Vernal swa	ale
Are climatic / hydrologic conditions on th			ear? Yes	No ((If no, explain	n in Remai	·ks.)	
		nificantly			"Normal Circumstan			No 🔘
		turally pro			eeded, explain any a	•		
SUMMARY OF FINDINGS - Att							,	oturos oto
SUMMART OF FINDINGS - AU	lacii sile iliap si	lowing	Sampi	ing point it	ocations, transe	ecis, iiii	Jortani ie	
Hydrophytic Vegetation Present?	_							
Hydric Soil Present?				s the Sample		_	0	
Wetland Hydrology Present? Remarks:	Yes No		W	vithin a Wetla	nd? Yes	•	No (
VEGETATION		Mara India	D	of Lo-Pooton	D			
Tree Stratum (Use scientific names.)		Absolute % Cover		int Indicator s? Status	Number of Domina			
1.	_				That Are OBL, FA			(A)
2.					- - Total Number of □	Ominant		
3.					Species Across A		2	(B)
4					Percent of Domina	ant Specie	s	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove	r of:	Multipl	y by:
3.					OBL species	10	x 1 =	10
4.					FACW species		x 2 =	0
5					FAC species	60	x 3 =	180
	Total Cover:	%			FACU species	20	x 4 =	80
Herb Stratum		25	V	T. G	UPL species		x 5 =	0
1. Festuca perennis		35	Yes	FAC	Column Totals:	90	(A)	270 (B)
2.Hordeum marinum gussoneanum 3.Centromadia fitchii	<u>1</u>	25 15	$\frac{\text{Yes}}{\text{No}}$	FAC FACU	Prevalence	Index = B/	'A =	3.00
4. Eryngium castrense		5	No	OBL	Hydrophytic Veg	etation In	dicators:	
5.Bromus hordeaceus		5	No	FACU	X Dominance T			
6.Navarretia leucocephala		5	No	OBL	× Prevalence In	dex is ≤3.	D ¹	
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supporting
8.					l		n a separate	
	Total Cover:	90 %			Problematic H	Hydropnytic	c vegetation	(Explain)
Woody Vine Stratum					¹ Indicators of hyd	ric soil an	d wetland hy	drology must
1. 2.					be present.	110 3011 411	a welland my	arology mast
Z	Total Cover:	%			Hydrophytic			
% Baro Ground in Horh Stratum 10	0 % % Cover		Princt	0/	Vegetation Present?	Yes •	No C	`
% Bare Ground in Herb Stratum1		טווטונט (Jiuot	<u>%</u>	rieseiit!	res 🖤	NO C	/
INGINAL.								

Profile Des	scription: (Describe t	o the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of ir	ndicators.)				
Depth	Matrix			k Feature	es							
(inches)	Color (moist)	%Co	or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	2.5 YR 3/3	97 2.5 Y	R 4/8	3	C	PL	Gravelly clay loam					
						_						
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr	rains ² L	ocation: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all I RRs un	ess otherwise	noted)			Indicators for P	roblematic Hydric Soils: 3				
Histoso			Sandy Redox					(A9) (LRR C)				
	Epipedon (A2)	<u> </u>	Stripped Ma					(A10) (LRR B)				
	Histic (A3)			Reduced V	, , ,							
Hydrog	en Sulfide (A4)			Red Parent	Material (TF2)							
Stratifie	ed Layers (A5) (LRR C	;)	Depleted M	atrix (F3))		Other (Expl	lain in Remarks)				
	luck (A9) (LRR D)		Redox Dark		` '							
	ed Below Dark Surface	e (A11)	Depleted Da		` ,		3 Indicators of hy	vdrophytic vegetation and				
	Dark Surface (A12)		Redox Depr Vernal Pool		(F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present.					
	Mucky Mineral (S1)	L		unless distributed or problematic								
	Gleyed Matrix (S4)						1					
	Layer (if present):											
Type:												
Depth (ii	nches):						Hydric Soil Pres	sent? Yes No				
Remarks:												
HYDROLO	ncv											
	ydrology Indicators:						Casandan	ladiantara (O ar mana na mairad)				
	licators (minimum of or	<u>ne required; chec</u>						Indicators (2 or more required)				
Surface	e Water (A1)		Salt Crust	` '				r Marks (B1) (Riverine)				
	/ater Table (A2)		Biotic Crus	' '				nent Deposits (B2) (Riverine)				
Saturat	tion (A3)	Ĺ	Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)				
Water I	Marks (B1) (Nonriveri i	ne)	Hydrogen		` '		= -	age Patterns (B10)				
Sedime	ent Deposits (B2) (Non	riverine)	=		_	Living Roc	` ,	eason Water Table (C2)				
	eposits (B3) (Nonriver i	ine)	Presence		,	,		sh Burrows (C8)				
	e Soil Cracks (B6)	Ī	=			ved Soils (· <u></u>	ation Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)			w Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-N	Neutral Test (D5)				
Field Obse	rvations:											
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):								
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):								
Saturation I		es O No 💿	Depth (in	ches):		Wetl	and Hydrology Pre	esent? Yes No				
<u> </u>	Includes capillary fringe) Wetland Hydrology Present? Yes No Obscribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
	,											
Remarks:												

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W37		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):1	
Subregion (LRR).C - Mediterranean C	alifornia	Lat:39.7	723871		Long:-121.77733	2	Datu	m:WGS 84	4
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	ent slop	oes		NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	n in Remar	·ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	l? Are	"Normal Circumstand	ces" prese	nt? Yes	No ()
			oblematic?		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	oortant fea	atures, e	tc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	l Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominar	nt Indicator	Dominance Test	workshee	ıt-		
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domina				
1			·	_	That Are OBL, FA			(A))
2					Total Number of D	ominant			
3				_	Species Across Al	l Strata:	2	(B))
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100).0 % (A/I	B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4				_	FACW species	10	x 2 =	20	
5				_	FACIL appeies	55	x 3 =	165	
Herb Stratum	Total Cover:	%			FACU species UPL species	20	x 4 = x 5 =	80	
1.Festuca perennis		30	Yes	FAC	Column Totals:	85	(A)		(B)
2.Hordeum marinum gussoneanum		25	Yes	FAC	_ Column rotals.	03	(A)	203	(5)
3.Bromus hordeaceus		15	No	FACU	Prevalence I			3.12	
4. Deschampsia danthonoides		10	No	FACW	Hydrophytic Veg				
5. Festuca myuros		5	No	FACU	X Dominance To				
6					Prevalence In Morphologica			cupporting	
7					data in Re	marks or o	n a separate	sheet)	
8	Total Cover:	0.5	-	_ .	Problematic F	lydrophytic	C Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	85 %							
1					Indicators of hydrobe present.	ric soil and	d wetland hy	drology mu	st
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	5 % % Cover 6	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:					•				\neg

SOIL Sampling Point: $\underline{W37}$

Profile De	scription: (Describe t	o the depth ne	eded to docu	ment the	indicator	or confirm	m the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	_Loc ²	Texture	Remarks
0-4	5 YR 3/3	98 <u>2.5 Y</u>	YR 4/8	2	<u>C</u>	<u>PL</u>	Gravelly loam	
						- ——		-
								-
¹ Type: C=	Concentration, D=Deple	etion, RM=Red	uced Matrix. C	S=Covere	ed or Coate	ed Sand G	Frains 2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs. ui	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3
	ol (A1)	Γ	Sandy Redo					k (A9) (LRR C)
Histic	Epipedon (A2)	Ī	Stripped Ma	atrix (S6)			2 cm Muc	k (A10) (LRR B)
Black	Histic (A3)		Loamy Mud	ky Miner	al (F1)			Vertic (F18)
	gen Sulfide (A4)		Loamy Gle	•	. ,			nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	, ,	,		Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,			
	ted Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)	L	Redox Dep Vernal Poo		(F8)			drology must be present.
	Gleyed Matrix (S4)	L	vemarroo	15 (1-9)			unless dist	tributed or problematic
	e Layer (if present):							
Type:	, ,, ,							
'' —	inches):		_				Hydric Soil Pro	esent? Yes No
Remarks:							1.,	
HYDROL	OGY							
Wetland H	lydrology Indicators:							
Primary Inc	dicators (minimum of or	ne required; che	ck all that app	y)				ry Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)			Wat	er Marks (B1) (Riverine)
High V	Vater Table (A2)		Biotic Cru	st (B12)			Sedi	iment Deposits (B2) (Riverine)
Satura	ation (A3)		Aquatic In	vertebrat	tes (B13)		Drift	Deposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide (Odor (C1)		Drair	nage Patterns (B10)
X Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosph	eres along	Living Ro	ots (C3) Dry-	Season Water Table (C2)
Drift D	eposits (B3) (Nonriveri	ine)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	ation Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)			low Aquitard (D3)
Water-	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse	ervations:							
Surface W	ater Present? Ye	es No 🗨	Depth (in	ches):				
Water Tab	le Present? Ye	es O No 🕡	Depth (in	ches):				
Saturation		es O No 🤄	Depth (in	ches):		Wet	land Hydrology B	resent? Yes No
	apillary fringe) Recorded Data (stream	gauge monitori	ng well aerial	nhotos r	revious ins		land Hydrology P	resent? Yes (•) No (
Posoning N	tocordod Data (Stiedili !	gaago, momon	ng won, achai	μποισο, μ		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, available.	
Remarks:								
ixcilialks.								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W38		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): fan te	rrace		Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7		•	Long:-121.77733			m:WGS	84
Soil Map Unit Name: Clearhayes-Hams					_		:Vernal poo		
Are climatic / hydrologic conditions on the				No (
					"Normal Circumstan		, _	No	
	-		disturbed					No	
,			oblematic [*]		eeded, explain any a		,		
SUMMARY OF FINDINGS - Att	ach site map sh	nowing	sampli	ing point l	ocations, transe	ects, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_	le	the Sample	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No O		
Remarks:				itiiiii a vvetia	103				
VEGETATION									
	Α	Absolute	Dominar	nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	9	% Cover	Species	? Status	Number of Domin				
1					That Are OBL, FA	CW, or FA	C: 4	((A)
2					Total Number of D	Oominant			
3					Species Across A	II Strata:	6	((B)
4	-				Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 66.	.7 % ((A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	_
3.					OBL species	15	x 1 =	15	
4.					FACW species		x 2 =	0	
5.					FAC species	35	x 3 =	105	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		20	* 7		UPL species	5	x 5 =	25	
1 Festuca perennis		20	Yes	FAC	Column Totals:	65	(A)	185	(B)
2 Deschampsia danthonoides		15	Yes	FAC	Prevalence	Index = B	/A =	2.85	
3. Navarretia leucocephala 4. Lasthenia fremontii		10 5	Yes Yes	OBL	Hydrophytic Veg			2.03	
5. Poa sp.		5	No	OBL Not Listed	→ Dominance T				
6. Festuca myuros		5	Yes	FACU	X Prevalence Ir				
7.Bromus hordeaceus		5	Yes	FACU	Morphologica	l Adaptatio	ons ¹ (Provide	supportir	ng
8.					data in Re	marks or o	on a separate	sheet)	
	Total Cover:	65 %			Problematic F	Hydrophyti	c Vegetation ¹	(Explain))
Woody Vine Stratum		05 %							
1					¹ Indicators of hyd be present.	ric soil an	d wetland hyd	drology n	nust
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 35	5 % % Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:									
									,

Profile Des	scription: (Describe t	to the depth nee	ded to docur	nent the	indicator	or confirn	n the absence	e of indicators.)
Depth	Matrix			c Feature				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	5 YR 3/3	1 2.5 YI	R 4/8	99	<u>C</u>	<u>PL</u>	Gravelly loam	<u> </u>
								
	-							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G		² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicable	e to all LRRs, unl	ess otherwise	noted.)				for Problematic Hydric Soils: 3
Histoso	• •		Sandy Redox	. ,				Muck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma Loamy Muc	, ,				Muck (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)	L	Loamy Gley	•	, ,			ced Vertic (F18) Parent Material (TF2)
	ed Layers (A5) (LRR C	;)	Depleted Ma					r (Explain in Remarks)
	luck (A9) (LRR D)	´	Redox Dark	Surface	(F6)			,
	ed Below Dark Surface	e (A11)	Depleted Da		` '		3 Indicator	s of hydrophytic vegetation and
	Dark Surface (A12)		Redox Depi		(F8)			nd hydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	s (F9)				s distributed or problematic
	Layer (if present):						Ī	·
Type:	Luyer (ii present).							
Depth (ii	nches).						Hydric So	il Present? Yes No
Remarks:							Tiyano oo	Tes (a) No
rtomanto.								
HYDROLO								
Wetland Hy	ydrology Indicators:							
Primary Ind	licators (minimum of or	ne required; chec	k all that apply	y)				endary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				Water Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Crus					Sediment Deposits (B2) (Riverine)
	tion (A3)		Aquatic Inv					Drift Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri	· · · · · · · ·	Hydrogen					Drainage Patterns (B10)
	ent Deposits (B2) (Nor		=		eres along	_	` ′ 🗀	Dry-Season Water Table (C2)
	eposits (B3) (Nonriver	ine)	Presence		`	,		Crayfish Burrows (C8)
	e Soil Cracks (B6) tion Visible on Aerial Ir	magany (B7)	Recent Iro Thin Muck			vea Solis (· <u> </u>	Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp		. ,			FAC-Neutral Test (D5)
Field Obse	. ,	L	_ Other (Exp	, a	- Ciriarito)			7.70 1100000 1001 (20)
		es No 💿	Depth (inc	ches):				
Water Table		es No 💿	Depth (inc	· —				
Saturation I		es O No 💿	Depth (inc	· -				
(includes ca	apillary fringe)							gy Present? Yes No
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial p	ohotos, p	revious ins	spections),	if available:	
Remarks:								

Project/Site: The Valley's Edge		City/C	ounty:Butte		Sampling Date: 11/11/14					
Applicant/Owner: B. Brouhard					State:	CA	Sampling Point:W39			
Investigator(s):D. Machek, E. Gregg			Sectio	n, Township, Ra	nge:S 32, T	22N, R 2E				
Landform (hillslope, terrace, etc.): fan te	rrace		Local	relief (concave,	convex, none):concave		Slope (%)):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.	72387	1	Long:-121.	777332		 Datum:WC	3S 84	
Soil Map Unit Name: Clearhayes-Hams		rcent slop	oes			NWI classification: Vernal pool				
Are climatic / hydrologic conditions on the				es (•) No (explain in R				
		gnificantly			"Normal Circu	•	,	∕es ●	No (
		aturally pr			eded, explair					
SUMMARY OF FINDINGS - Att		, ,		`					s, etc.	
Hydrophytic Vegetation Present?	Yes No	o (i)								
Hydric Soil Present?	Yes No			Is the Sampled	l Area					
Wetland Hydrology Present?	Yes No			within a Wetla	nd?	Yes •	No (
VEGETATION										
		Absolute	Domii	nant Indicator	Dominanc	e Test work	sheet:			
<u>Tree Stratum</u> (Use scientific names.)		% Cover	Spec	ies? Status		Dominant Sp				
1					That Are O	BL, FACW, o	or FAC:	2	(A)	
3.						per of Dominators		2	(B)	
4	 Total Cover	: %				Dominant Sp BL, FACW, o		100.0 %	(A/B)	
Sapling/Shrub Stratum		, , ,						100.0 %	(A/D)	
1					-	e Index worl				
2					_	6 Cover of:		Multiply by: = 5		
3					OBL specie FACW spe		$\begin{array}{ccc} 5 & x & 1 \\ \hline 10 & x & 2 \end{array}$			
5.					FAC specie		55 x 3			
J	Total Cover:	%		<u> </u>	FACU species		0×4			
Herb Stratum	Total Govern	, 70			UPL specie	-	x 5			
1.Festuca perennis		40	Yes	FAC	Column To	tals: 8	30 (A)	230		
2. Hordeum marinum gussoneanum	ı	15	Yes	FAC			,			
3. Deschampsia danthonioides		10	No	FACW		lence Index		2.8	8	
4.Bromus hordeaceus		10	No	FACU		ic Vegetation ance Test is		rs:		
5.Navarretia leucocephala		5	No	OBL		ence Index is				
6.								Provide suppo	ortina	
7. 8.								eparate sheet		
0	Total Cover:				Proble	matic Hydror	hytic Vege	etation ¹ (Expla	ain)	
Woody Vine Stratum 1.		00 70			¹ Indicators	of hydric so	il and wetl	and hydrolog	v must	
2.					be present					
	Total Cover:	%			Hydrophyt					
	0 % Cover	of Biotic (Crust _	<u>%</u>	Vegetation Present?		s •	No 🔿		
Remarks:										

Profile Des	scription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	5 YR 3/3	98 <u>2.5 Y</u>	R 4/8	2	<u>C</u>	<u>PL</u>	Gravelly loam	
							Gravelly loam	
	-							
	-							
1	-							2
Type: C=0	Concentration, D=Deple	etion, RM=Redu	iced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I DDs ur	loss othorwise	noted)			Indicators f	for Problematic Hydric Soils: 3
Histoso		e to all ERRS, ul	Sandy Redo					Muck (A9) (LRR C)
l <u>—</u>	Epipedon (A2)	F	Stripped M	, ,				Muck (A10) (LRR B)
Black H	Histic (A3)		Loamy Mud	cky Miner	al (F1)		Reduc	ed Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-	, ,			arent Material (TF2)
	ed Layers (A5) (LRR C) _	Depleted M	, ,	,		Other	(Explain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface		Redox Dari		. ,			
	Dark Surface (A12)		Redox Dep		` '			of hydrophytic vegetation and
🗀	Mucky Mineral (S1)	F	Vernal Poo		(- /			I hydrology must be present.
Sandy	Gleyed Matrix (S4)						unless	distributed or problematic
Restrictive	Layer (if present):							
Type:			-					
Depth (ii	nches):						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; che	ck all that app	ly)				dary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			V	Vater Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)			s	ediment Deposits (B2) (Riverine)
Saturat	tion (A3)		Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri r		Hydrogen		. ,		= -	rainage Patterns (B10)
	ent Deposits (B2) (Non	,	=		eres along	-	` ' 🖳	ry-Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)	=		ced Iron (C			rayfish Burrows (C8)
	e Soil Cracks (B6)	nogon (DZ)			tion in Plov	vea Solis (aturation Visible on Aerial Imagery (C9)
=	tion Visible on Aerial In Stained Leaves (B9)	nagery (b7)	Thin Muck Other (Ex		. ,			hallow Aquitard (D3) AC-Neutral Test (D5)
Field Obse	. ,		Other (LX	piaiii iii K	emarks)			AC-Neutral Test (D3)
		es No 💽	Depth (in	iches):				
Water Table		es No (•		′—				
Saturation I		es O No (•		· —				
(includes ca	apillary fringe)							y Present? Yes No
Describe R	ecorded Data (stream (gauge, monitori	ng well, aerial	photos, p	revious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge		City/Cour	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W40		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	nge:S 32, T 22N, F	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local rel	lief (concave,	convex, none):conc	ave	Slop	oe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723198		Long:-121.77731	1	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the			ar? Yes	No (
			disturbed		"Normal Circumstand		,	No 🔘	
			oblematic		eeded, explain any ar	•			
SUMMARY OF FINDINGS - Att							,	atures et	C
	·		Campii	ng pome i		0.0,			
Hydrophytic Vegetation Present?	_								
Hydric Soil Present? Wetland Hydrology Present?	_			the Sampled			Na O		
Remarks:	162 6 140		W	ithin a Wetla	na? Yes		No (
VECETATION									
VEGETATION		Absolute	Dominar	nt Indicator	Dominance Test	workshoo	.4-		
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domina				
1					That Are OBL, FAC			(A)	
2					Total Number of D	ominant			
3					Species Across All		4	(B)	
4					Percent of Domina	nt Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAG	CW, or FA	C: 75.	0 % (A/B	;)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	of:	Multiply	/ by:	
3.					OBL species	20	x 1 =	20	
4					FACW species	10	x 2 =	20	
5					FAC species	35	x 3 =	105	
Herb Stratum	Total Cover:	%			FACU species	10	x 4 =	40	
1.Festuca perennis		35	Yes	FAC	UPL species		x 5 =	0	D)
2. Lasthenia fremontii		15	Yes	OBL	Column Totals:	75	(A)	185 (E	B)
3.Deschampsia danthonioides		10	Yes	FACW	Prevalence I	ndex = B	'A =	2.47	
4. Festuca myuros		10	Yes	FACU	Hydrophytic Vege	etation In	dicators:		
5.Navarretia leucocephala		5	No	OBL	X Dominance Te				
6					× Prevalence In				
7				_	Morphological data in Rer		ons" (Provide : on a separate		
8					Problematic H			,	
Woody Vine Stratum	Total Cover:	75 %							
1					¹ Indicators of hydr	ic soil an	d wetland hyd	drology mus	t
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 25	5 % % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes •	No 🔘		
Remarks:									

SOIL Sampling Point: $\underline{W40}$

Profile Des	scription: (Describe t	o the depth ne	eded to docun	nent the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			(Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-3	2.5 YR 2.5/3						Gravelly clay loam	1
3-14	2.5 YR 3/4	<u>80</u> <u>2.5 Y</u>	ZR 4/8	_20_	<u>C</u>	<u>M</u>	Gravelly clay loam	1
	<u> </u>							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Red	uced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, u	nless otherwise	noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso	` '	[Sandy Redox	, ,			1 cm Muc	ck (A9) (LRR C)
	pipedon (A2)		Stripped Ma	, ,				ck (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)		Loamy Muc Loamy Gley					Vertic (F18) nt Material (TF2)
	ed Layers (A5) (LRR C) [Depleted Ma					plain in Remarks)
	luck (A9) (LRR D)	´ [Redox Dark	, ,				, ,
ı Ш .	ed Below Dark Surface	(A11)	Depleted Da		. ,		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)		Redox Depr		(F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Pool	s (F9)				tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):		_				Hydric Soil Pr	esent? Yes No
Remarks:	<u> </u>							
HYDROLO	DGY							
Wetland Hy	ydrology Indicators:							
_	icators (minimum of or	ne required; che	eck all that apply	y)			Seconda	ry Indicators (2 or more required)
Surface	e Water (A1)	-	Salt Crust	(B11)			Wat	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Crus	st (B12)			Sed	iment Deposits (B2) (Riverine)
Saturat	tion (A3)		Aquatic Inv	vertebrat	es (B13)		Drift	Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide C	Odor (C1)		Drai	nage Patterns (B10)
Sedime	ent Deposits (B2) (Nor	riverine)			eres along	_	ots (C3) Dry-	Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)			ed Iron (C	•		fish Burrows (C8)
==	e Soil Cracks (B6)	(=-)	=		tion in Plow	ed Soils (ration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial Ir	nagery (B7)	Thin Muck		` '			llow Aquitard (D3)
Field Obse	Stained Leaves (B9)		Other (Exp	iain in K	emarks)		X FAC	-Neutral Test (D5)
		es No (Depth (inc	ches).				
Water Table		s No (· —				
Saturation F		es No (· —				
(includes ca	apillary fringe)						land Hydrology P	resent? Yes No
Describe Re	ecorded Data (stream	gauge, monitor	ng well, aerial p	onotos, p	revious ins	pections),	ıт avaılable:	
Domortos								
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		Sam	pling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	⁷ 41
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 33, T 22N, 1	R 2E		
Landform (hillslope, terrace, etc.): terrace	•		Local re	lief (concave,	convex, none):cona	ve	Slop	oe (%):3
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	723110		Long:-121.76813	8	Datun	n:WGS 84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal pool	Ĺ
Are climatic / hydrologic conditions on the	site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)	
Are Vegetation Soil or Hyd	drology sig	gnificantly	disturbed	d? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hyd	drology na	turally pro	oblematic	? (If ne	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Atta	ach site map s	howing	sampli	ing point l	ocations, transe	ects, imp	oortant fea	itures, etc.
Hydrophytic Vegetation Present?	Yes No	0						
Hydric Soil Present?	Yes No		Is	the Sampled	l Area			
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘	
VEGETATION								
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test			
1.	_	70 COVEL	Species	Status_	Number of Domina That Are OBL, FA			(A)
2.			-		-		5	(* 1)
3.					 Total Number of D Species Across Al 		4	(B)
4.					- Percent of Domina			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove		Multiply	by:
3.					OBL species	10	x 1 =	10
4.					FACW species		x 2 =	0
5					FAC species	50	x 3 =	150
	Total Cover:	%			FACU species	15	x 4 =	60
Herb Stratum		25	37		UPL species		x 5 =	0
1. Hordeum marinum gussoneanum		35	Yes	FAC	Column Totals:	75	(A)	220 (B)
2.Festuca perennis 3.Festuca myuros		15 10	Yes Yes	FACU FACU	Prevalence I	ndex = B/	A =	2.93
4. Lasthenia fremontii	·	10	Yes	OBL	Hydrophytic Veg	etation In	dicators:	
5.Bromus hordeaceus		5	$\frac{1 cs}{No}$	FACU	X Dominance T			
6.					× Prevalence In	dex is ≤3.0) ¹	
7.					Morphologica	l Adaptatio	ns¹ (Provide s	supporting
8.					data in Re Problematic H		n a separate	
	Total Cover:	75 %			- Problematic F	iyaropnyti	vegetation	(Explain)
Woody Vine Stratum 1.					¹ Indicators of hyd be present.	ric soil and	d wetland hyd	Irology must
2	Tatal Causes	0/			Hydrophytic			
% Bare Ground in Herb Stratum 25	Total Cover: % Cover		Crust	%	Vegetation Present?	Yes •	No 🔿	
Remarks:	<u> </u>							

SOIL Sampling Point: $\underline{W41}$

Profile Des	cription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirm	n the absence of	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	5 YR 3/4	982.5 Y	R 4/8	2	<u>C</u>	<u>M</u>	loam	
	-							
	-			_				
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicators (Annlicable	a ta all I DDa	laaa athamuia	\			lu dia ataua fa	or Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LRRS, un	Sandy Redo					uck (A9) (LRR C)
	Epipedon (A2)	-	Stripped M	, ,				uck (A10) (LRR B)
	Histic (A3)		Loamy Mud	. ,				ed Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matri	x (F2)		Red Pa	rent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	, ,	,		Other (E	Explain in Remarks)
	luck (A9) (LRR D)		Redox Darl		, ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators of	of hydrophytic vegetation and
🗀	Mucky Mineral (S1)	F	Vernal Poo		(ГО)		wetland	hydrology must be present.
	Gleyed Matrix (S4)	L	_ veman oo	13 (1 3)			unless d	istributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil I	Present? Yes No
Remarks:								
HYDROLO	nev							
	ydrology Indicators:							
_	icators (minimum of or	o required: che	ak all that ann	lv.)			Second	dary Indicators (2 or more required)
	*	ie requirea, crie						/ater Marks (B1) (Riverine)
l 🖳	e Water (A1)	[[Salt Crust Biotic Cru	` '				ediment Deposits (B2) (Riverine)
1 == -	ater Table (A2) tion (A3)	l	Aquatic In	, ,	ec (R13)			ift Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri i	ا ا	Hydrogen					ainage Patterns (B10)
1 ==	ent Deposits (B2) (Non				eres along	Living Ro	=	y-Season Water Table (C2)
==	eposits (B3) (Nonriver i	,			ced Iron (C	•	` ′ 🖃	ayfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	[tion in Plov			turation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			(nallow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex		. ,			AC-Neutral Test (D5)
Field Obse	rvations:	L			· · ·			
Surface Wa	iter Present? Ye	s No 💿	Depth (in	ches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation F		s No 💽	Depth (in	ches):		<u> </u>		
	apillary fringe) ecorded Data (stream			nhotos r	revious inc			Present? Yes No
Describe K	ecorded Data (Stream)	gauge, monitorii	ig weii, aeriai	priotos, p	nevious iris	speciions),	ii avaliable.	
Remarks:								
ixciliaiks.								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:V	V42
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 33, T 22N, 1	R 2E		
Landform (hillslope, terrace, etc.): terrac	e		Local re	elief (concave,	convex, none):conc	ave	Slop	pe (%):3
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	723110		Long:-121.76813	88	Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	ol
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes	No ((If no, explair	n in Remai	rks.)	
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	d? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic	:? (If ne	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Att	tach site map sl	howing	sampl	ing point le	ocations, transe	ects, im	portant fea	atures, etc.
Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes No		Is	the Sample	d Area			
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘	
Remarks:								
VEGETATION VEGETATION								
VEGETATION		Absolute	Domina	nt Indicator	Dominance Test	workshee	et:	
<u>Tree Stratum</u> (Use scientific names.)	_	% Cover	Species	Status	Number of Domina	ant Specie	s	
1			-		That Are OBL, FA	CW, or FA	C: 3	(A)
2. 3.					Total Number of D Species Across Al		5	(B)
4.					- Percent of Domina		c	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove		Multiply	y by:
3.					OBL species	10	x 1 =	10
4.					FACW species		x 2 =	0
5.					FAC species	45	x 3 =	135
Liberth Christian	Total Cover:	%			FACU species	20	x 4 =	80
Herb Stratum	•	35	Yes	EAC	UPL species		x 5 =	0
1. Hordeum marinum gussoneanum 2. Festuca perennis	<u> </u>	10	Yes	FAC FAC	Column Totals:	75	(A)	225 (B)
3. Festuca myuros		10	Yes	FACU	Prevalence I	ndex = B	/A =	3.00
4. Lasthenia fremontii		10	$\frac{\text{Tes}}{\text{Yes}}$	OBL	Hydrophytic Veg	etation In	dicators:	
5.Bromus hordeaceus		10	Yes	FACU	X Dominance T	est is >50°	%	
6.					× Prevalence In			
7.					Morphologica	l Adaptatio	ons¹ (Provide on a separate	supporting
8.					- Problematic H			
Woody Vino Stratum	Total Cover:	75 %			Troblematic r	iyaropiiya	vegetation	(Explain)
Woody Vine Stratum 1.					¹ Indicators of hyd be present.	ric soil an	d wetland hyd	drology must
2				. .	-			
20.5	Total Cover:				Hydrophytic Vegetation	0		
	5 % % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes	No C)
Remarks:								

SOIL Sampling Point: $\underline{W42}$

Profile Des	scription: (Describe to	o the depth nee	eded to docu	ment the	indicator	or confirm	n the absence o	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	5 YR 3/4	97 <u>2.5 Y</u>	R 4/8	3	<u>C</u>	<u>M</u>	loam	
	-							
	-							
				_				
¹ Type: C=0	Concentration, D=Deple	 etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	a to all I PRs un	less otherwise	noted)			Indicators fo	or Problematic Hydric Soils: 3
Histoso		e to all EKKS, ull	Sandy Redo					uck (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,				uck (A10) (LRR B)
Black F	Histic (A3)		Loamy Mud	cky Miner	al (F1)		Reduce	d Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-	, ,		<u></u>	rent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (E	Explain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(A11) _	Redox Darl Depleted D		, ,			
	Park Surface (A12)		Redox Dep		` '			of hydrophytic vegetation and
	Mucky Mineral (S1)	-	Vernal Poo		(1 0)		wetland	hydrology must be present.
Sandy	Gleyed Matrix (S4)		_				unless d	istributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil F	Present? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; che	ck all that app	ly)			Second	dary Indicators (2 or more required)
Surface	e Water (A1)	. [Salt Crust	(B11)				ater Marks (B1) (Riverine)
High W	ater Table (A2)	ĺ	Biotic Cru	st (B12)			Se	ediment Deposits (B2) (Riverine)
Saturat	tion (A3)	Ī	Aquatic In	vertebrat	es (B13)		Dr	ift Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri r	ne)	Hydrogen	Sulfide 0	Odor (C1)		Dr	ainage Patterns (B10)
Sedime	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosph	eres along	Living Ro	ots (C3) Dr	y-Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ine)	Presence	of Reduc	ced Iron (C	4)	Cra	ayfish Burrows (C8)
Surface	e Soil Cracks (B6)	[Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Sa	turation Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sh	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FA	C-Neutral Test (D5)
Field Obse								
		s No 💽		′—				
Water Table	e Present? Ye	es O No 💿	Depth (in	iches):				
Saturation F	Present? Ye apillary fringe)	es O No 💽	Depth (in	iches):		Wetl	and Hvdrology	Present? Yes No
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, p	revious ins			
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point: ${ m V}$	V43	
Investigator(s): D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770)4	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No (\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point l	ocations, transe	ects, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshee	ot-		
<u>Tree Stratum</u> (Use scientific names.)			Species		Number of Domina				
1				_	That Are OBL, FA	CW, or FA	C: 3	((A)
2. 3.					Total Number of D Species Across Al		4	((B)
4				_	Percent of Domina	ant Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3.					OBL species	15	x 1 =	15	
4.					FACW species	15	x 2 =	30	
5.					FAC species	20	x 3 =	60	
Llorb Ctroturo	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1 Factured paramile		20	Yes	FAC	UPL species	5	x 5 =	25	
Festuca perennis Lasthenia fremontii		15	Yes	OBL	Column Totals:	55	(A)	130	(B)
3. Deschampsia danthanoides		15	Yes	FACW	Prevalence I	ndex = B	/A =	2.36	
4. Poa sp.		5	Yes	Not Listed	Hydrophytic Veg	etation In	dicators:		
5.					X Dominance Te	est is >50°	%		
6.					× Prevalence In				
7.					Morphological	Adaptatio	ons ¹ (Provide on a separate	supporting	ng
8.					- Problematic H				١
Woody Vino Stratum	Total Cover:	55 %			Troblematic	туагорттуш	o vegetation	(Explair)	,
Woody Vine Stratum 1.					¹ Indicators of hydrobe present.	ric soil an	d wetland hy	drology n	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum4	5 % % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes	No C	>	
Remarks:									

Profile Des	scription: (Describe	to the depth n	eeded to docui	ment the	indicator	or confirm	m the absen	nce of indicators.)
Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	99 2.5	YR 4/8	1	C	M	Clay loam	
						_		
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Re	duced Matrix. CS	S=Covere	ed or Coate	ed Sand G		² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicat	ole to all LRRs,	unless otherwise	noted.)				ors for Problematic Hydric Soils: 3
Histoso	, ,		Sandy Redo	. ,				m Muck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	` ,	-L (E4)			m Muck (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)		Loamy Muc	-	, ,			duced Vertic (F18) d Parent Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted M					ner (Explain in Remarks)
	luck (A9) (LRR D)	0)	Redox Dark	, ,				ior (Explain in Nomano)
	ed Below Dark Surfac	e (A11)	Depleted D	ark Surfa	ice (F7)			
Thick D	Dark Surface (A12)		Redox Dep	ressions	(F8)			tors of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				and hydrology must be present. ess distributed or problematic
	Gleyed Matrix (S4)						unie	ess distributed of problematic
	Layer (if present):							
Type:			_					
Depth (ii	nches):						Hydric S	Soil Present? Yes No
Remarks:								
HYDROLO	OGY							
	ydrology Indicators:	•						
	licators (minimum of o		neck all that anni	v)			Sec	condary Indicators (2 or more required)
	e Water (A1)	one required, ci	Salt Crust				— <u> </u>	Water Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Crus	` ′			F	Sediment Deposits (B2) (Riverine)
	tion (A3)		Aquatic In		es (B13)			Drift Deposits (B3) (Riverine)
	Marks (B1) (Nonrive i	rine)	Hydrogen		, ,		X	Drainage Patterns (B10)
	ent Deposits (B2) (No				eres along	Living Ro	ots (C3)	Dry-Season Water Table (C2)
	eposits (B3) (Nonrive				ed Iron (C	•	(**)	Crayfish Burrows (C8)
	e Soil Cracks (B6)	,			tion in Plov	•	(C6)	Saturation Visible on Aerial Imagery (C9)
=	tion Visible on Aerial	Imagery (B7)	Thin Muck			`	`	Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in R	emarks)			FAC-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	nter Present?	′es ○ No	Depth (in	ches):				
Water Table	e Present?	∕es ○ No	Depth (in	ches):				
Saturation I		∕es ○ No	Depth (in	ches):				
	apillary fringe)	a a cua a manita	ring wall parial		raviava in		-	logy Present? Yes (•) No (
Describe K	ecorded Data (stream	i gauge, monito	iring well, aerial	priotos, p	revious ins	spections),	, ii available.	•
Dam * 7	11		. (T) . 1	C. 1 1	1 / = 0	0/ .1 `		
				-				and levels out to approximately 3-5% a
	* *		-		•		stope to the	ese pools via sheet flow. Pools probabl
IC	ormed when constr	uction of road	prevented wa	ter from	running	OII.		

State C Nachok E. Grogg
ubregion (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin (LRR) C - Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin Meditherranean California Lat39,720194 Long:-121,777704 Datum: WGS 84 outledgoin Meditherranean California Chapter (WGS 84 outledgoinean California Chapter (WGS 8
ubregion (LRR).C - Mediterranean California Lat:39.720194 Long:121.777704 Datum:WGS 84 oil Map Unit Name: Doemiill-Jokerst , 3 to 8 percent slopes NWI classification.Vernal pool re climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil or Hydrology Instituted Are "Normal Circumstances" present? Yes No re Vegetation Soil or Hydrology Instituted Are "Normal Circumstances" present? Yes No No Is the Sampled Area within a Wettand? RUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations to the features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations to the features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations to the features, etc. Hydrophytic Vegetation Present? Yes No Sampling point locations to the features, etc. Hydrophytic Vegetation
oil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes re climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No re Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) RUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No So No So No So No So No No
re climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) re Vegetation Soil or Hydrology aignificantly disturbed? Are "Normal Circumstances" present? Yes No re Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) ### Final Covers Species?
re Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No re Vegetation Soil or Hydrology naturally problematic? ((If needed, explain any answers in Remarks.) ### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. ### Hydrophytic Vegetation Present? Yes No Soil Present Soil Pr
re Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) FUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No No Subtemption of No No No No No No No No No No No No No
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No No Is the Sampled Area within a Wetland Hydrology Present? Yes No No No Is the Sampled Area within a Wetland? Yes No No No No No No No No No No No No No
Hydrophytic Vegetation Present? Yes No No Is the Sampled Area within a Wetland? Yes No No Wetland Hydrology Present? Yes No No Wetland Hydrology Present? Yes No No Wetland Hydrology Present? Yes No No Wetland? Yes No No No No No No No N
Is the Sampled Area within a Wetland? Yes
Absolute
Absolute
Tree Stratum (Use scientific names.) Absolute % Cover Species? Status
Absolute % Cover Species? Status Indicator Species Status Status Species Status Species Status Statu
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2.
3. 1. Species Across All Strata: 4. 4. 4. 4. Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B) (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B) (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: Multiply by: OBL species 15 x 1 = 15 FACW species 15 x 2 = 30 FACW species 15 x 5 = 25 Column Totals: Column Totals: 60 (A) 145 (B) Hydrophytic Vegetation Indicators: X Dominant Species X prevalence Index is ≤3.0¹ X prevalence Index is ≤3.0¹ Y prevalence Index is ≤3.0¹ Y prevalence Index is ≤3.0¹ Y prevalence Index is ≤3.0¹ Y prevalence Index is ≤3.0¹ Y prevalence Ind
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0 % (A/B)
Total Cover: % That Are OBL, FACW, or FAC: 75.0 % (A/B)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
3. OBL species 15 \times 1 = 15 \times 4. FACW species 15 \times 2 = 30 \times 5. FAC species 25 \times 3 = 75 \times 75 FACU species 25 \times 4 = 0 \times 1. Festuca perennis 25 Yes FAC Olumn Totals: 60 (A) 145 (B) 2. Lasthenia fremontii 15 Yes OBL 3. Deschampsia danthanoides 15 Yes FACW Prevalence Index = B/A = 2.42 \times 4. Poa sp. 5 Yes Not Listed Hydrophytic Vegetation Indicators: \times Dominance Test is >50% \times Prevalence Index is \leq 3.01
FACW species $15 \times 2 = 30$ FAC species $25 \times 3 = 75$ FACU species $25 \times 4 = 0$ UPL species $5 \times 5 = 25$ Column Totals: $60 \times 145 \times 14$
5. Total Cover: % Herb Stratum 1. Festuca perennis 2. Lasthenia fremontii 3. Deschampsia danthanoides 4. Poa sp. 5. Yes 6. FAC Total Cover: % FAC species $x = 3 = 75$ FACU species $x = 4 = 0$ UPL species $x = 5 = 25$ Column Totals: $x = 60 = 60$ Prevalence Index = B/A = 2.42 Hydrophytic Vegetation Indicators: X Dominance Test is >50% X Prevalence Index is $x = 3.01$
Total Cover: % Herb Stratum 1. Festuca perennis 2. Lasthenia fremontii 3. Deschampsia danthanoides 4. Poa sp. 5. Yes 6. FAC Total Cover: % FACU species $x 4 = 0$ UPL species $5 \times 5 = 25$ Column Totals: $60 \times 145 \times 16$ UPL species $5 \times 5 = 25$ Column Totals: $60 \times 145 \times 16$ Prevalence Index $= B/A = 2.42$ Hydrophytic Vegetation Indicators: X. Dominance Test is >50% X. Prevalence Index is $\leq 3.0^{1}$
Herb Stratum1. Festuca perennis25YesFACColumn Totals:60(A)145(B)2. Lasthenia fremontii15YesOBLPrevalence Index = B/A =2.423. Deschampsia danthanoides15YesFACWHydrophytic Vegetation Indicators:4. Poa sp.5YesNot ListedHydrophytic Vegetation Indicators:5.XDominance Test is >50%6.XPrevalence Index is $\leq 3.0^{\circ}$
1. Festuca perennis25YesFACColumn Totals: 60 (A) 145 (B)2. Lasthenia fremontii15YesOBL3. Deschampsia danthanoides15YesFACWPrevalence Index = B/A = 2.424. Poa sp.5YesNot ListedHydrophytic Vegetation Indicators:5.XDominance Test is >50%6.XPrevalence Index is $\leq 3.0^{\circ}$
2. Lasthenia fremontii 15 Yes OBL Prevalence Index = B/A = 2.42 4. Poa sp. 5 Yes Not Listed Hydrophytic Vegetation Indicators: \times Dominance Test is >50% \times Prevalence Index is \leq 3.01
3. Deschampsia danthanoides 4. Poa sp. 5 Yes Not Listed Hydrophytic Vegetation Indicators: Dominance Test is >50% Revealence Index = B/A = 2.42 Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is $\leq 3.0^{\circ}$ Marrhele rich Advantational (Provide supporting)
4. Poa sp. 5 Yes Not Listed Hydrophytic Vegetation Indicators: 5 Yes Not Listed Word Prevalence Test is >50% X Prevalence Index is ≤3.0¹ Marrhala rical Adaptational (Previde supporting)
5. X Dominance Test is >50% X Prevalence Index is ≤3.0¹ Marrhala rical Adaptational (Davida connection)
Manufacture 1 (Purvide supraction
Marphalagical Adaptational (Drayida aupparting
7. ————————————————————————————————————
8. Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cover: 60 % Woody Vine Stratum
1. Indicators of hydric soil and wetland hydrology must be present.
2
Vegetation
% Bare Ground in Herb Stratum 40 % % Cover of Biotic Crust % Present? Yes (●) No ()
% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust Present? Yes No Remarks:
% Bare Ground in Herb Stratum40 %_

SOIL Sampling Point: $\underline{W44}$

Profile Des	scription: (Describe t	o the depth ne	eded to docur	nent the	indicator	or confirm	n the absence of ir	ndicators.)
Depth	Matrix		Redox	c Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	97 2.5	YR 4/8	_ 3	C	M	Clay loam	
						_		
				. ——				
	<u> </u>							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Red	uced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ² L	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, u	nless otherwise	noted.)			Indicators for P	roblematic Hydric Soils: 3
Histoso			Sandy Redox					(A9) (LRR C)
Histic E	Epipedon (A2)	ĺ	Stripped Ma	atrix (S6)			2 cm Muck	(A10) (LRR B)
	Histic (A3)		Loamy Muc				Reduced V	
	gen Sulfide (A4)		Loamy Gley					Material (TF2)
	ed Layers (A5) (LRR C	(5)	Depleted M				Other (Exp	lain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	\(\Lambda 11\)	Redox Dark Depleted Dark		. ,			
	Park Surface (A12)	; (ATT) [Redox Depi		` '		3 Indicators of hy	ydrophytic vegetation and
	Mucky Mineral (S1)	[Vernal Pool		(10)		wetland hyd	rology must be present.
· 🗀	Gleyed Matrix (S4)	l		- ()			unless distri	buted or problematic
	Layer (if present):							
Type:								
Depth (i	nches):		_				Hydric Soil Pres	sent? Yes No
Remarks:							L	
HYDROL								
	ydrology Indicators:							
Primary Inc	licators (minimum of or	ne required; ch	eck all that appl	y)				Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				r Marks (B1) (Riverine)
l 😑 📑	/ater Table (A2)		Biotic Crus				<u>—</u>	nent Deposits (B2) (Riverine)
==	tion (A3)		Aquatic In		, ,			Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri i		Hydrogen		` '		=	age Patterns (B10)
==	ent Deposits (B2) (Non		Oxidized F		_	_	` ' 🖃 '	eason Water Table (C2)
🗀	eposits (B3) (Nonriver	ine)	Presence		•	•		sh Burrows (C8)
	e Soil Cracks (B6)	(=-)	Recent Iro			ved Soils (ation Visible on Aerial Imagery (C9)
l <u>=</u>	tion Visible on Aerial Ir	nagery (B7)	Thin Muck					w Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-N	Neutral Test (D5)
Field Obse		O /	5 5 4 %					
		es No (· —				
Water Table		es No (
	Present? Ye apillary fringe) ecorded Data (stream	es No (· —	arovious inc		and Hydrology Pre	esent? Yes No
Describe K	coorded Data (Stredth	gauge, monitor	iiig weii, aeiial	σποιόδ, μ	nevious ilis	pecuuiis),	ii avaiiabit.	
Domosto:T	omol moole and leave	tod on a ala	The class !	foid-	toon (F 0	0/ a1c = ->	ot the term and 1.	ale out to appropriately 2.50/
1				-				els out to approximately 3-5% as
1	* *	-	_		•		stope to these poo	ols via sheet flow. Pools probably
10	ormed when constru	CHOII OI TOAG	prevenieu wa	110III	rummig	011.		

Project/Site: The Valley's Edge			City/Cour	ity:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point: \overline{V}	V45	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ef (concave,	convex, none):conc	ave	Slo	pe (%): <u>3</u>	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770	4	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	ol	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ar? Yes	No ((If no, explain	in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If ne	eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point le	ocations, transe	cts, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
		Absolute	Dominan	t Indicator	Dominance Test	workshee	et:		
<u>Tree Stratum</u> (Use scientific names.)	_	% Cover	Species	Status	Number of Domina	ant Specie	es.		
1				_	That Are OBL, FA	CW, or FA	C: 3		(A)
2. 3.					Total Number of D Species Across Al		4		(B)
4.					- - Percent of Domina	nt Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover		Multiply	y by:	
3.					OBL species	15	x 1 =	15	
4.					FACW species	15	x 2 =	30	
5					FAC species	20	x 3 =	60	
Hart Otratura	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1 Footbook paramoid		20	Vac	EAG	UPL species	5	x 5 =	25	
Festuca perennis Lasthenia fremontii		20 15	Yes Yes	- FAC OBL	Column Totals:	55	(A)	130	(B)
3. Deschampsia danthanoides		15	Yes	FACW	Prevalence I	ndex = B	/A =	2.36	
4. Poa sp.		5	Yes	Not Listed	Hydrophytic Vege	etation In	dicators:		
5.				_	X Dominance Te	est is >50°	%		
6.					× Prevalence In	dex is ≤3.	01		
7.					Morphological	Adaptatio	ons ¹ (Provide	supportin	ng
8.					- Problematic H		on a separate		١
Woods Vino Stratum	Total Cover:	55 %			Troblematic m	iyaropriyii	vegetation	(Explain)	,
Woody Vine Stratum 1.					¹ Indicators of hydr	ric soil an	d wetland hv	droloav r	nust
1. 2.				_	be present.		,		
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum45	5 % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No C)	
Remarks:					1				

Profile Des	cription: (Describe to	o the denth neg	aded to docur	nent the	indicator	or confirm	n the absence of	indicators)
Depth	Matrix	o the depth he		Feature		or commi	ii tile absence of	mulcators.)
(inches)	Color (moist)	% Co	lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	98 2.5 Y	R 4/8	2	C	M	Clay loam	
	2.3 11(3/3		10		. —		City Iouni	·
	-						-	·
	-						-	·
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I RRs un	less otherwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histoso		to all Likks, ull	Sandy Redox					k (A9) (LRR C)
=	pipedon (A2)	-	Stripped Ma	` '				k (A10) (LRR B)
	listic (A3)		Loamy Muc	` '				Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matri	ix (F2)		Red Pare	nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Ex	plain in Remarks)
	uck (A9) (LRR D)		Redox Dark		` ,			
	ed Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators of I	hydrophytic vegetation and
	Park Surface (A12) Mucky Mineral (S1)	Ļ	Redox Depi		(F8)			drology must be present.
	Gleyed Matrix (S4)	L	_ veillai Fooi	5 (1-9)			unless dist	ributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches).						Hydric Soil Pro	esent? Yes No
Remarks:							,	
rtomanto.								
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
Primary Ind	icators (minimum of on	e required; che	ck all that appl	y)			Secondar	ry Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Saturat	ion (A3)	j	Aquatic In	vertebrat	tes (B13)		Drift	Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri r	ne)	Hydrogen	Sulfide (Odor (C1)			nage Patterns (B10)
X Sedime	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ne)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)	[Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	low Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s No 💽	Depth (in	ches):				
Water Table	e Present? Ye	s No 💿	Depth (in	ches):				
Saturation F		s No 💿	Depth (in	ches):		N/oti	and Hudralamy D	resent? Yes No
	pillary fringe) ecorded Data (stream ç	nauge monitori	ng well aerial i	nhotos r	revious in		and Hydrology P	resent? Yes (•) No (
Describe IX	conded Data (Stream (gauge, monitorii	ig well, actial p	7110103, p	nevious inc	эрссиона),	ii availabic.	
Domarko V	arnal nools are less	ad on a alone	The class !:	foirle	stoon (F O	0/ alona)	at the ten and 1-	vals out to approximately 2 50/
			-	-			•	vels out to approximately 3-5% as pols via sheet flow. Pools probably
	approaches the vern				•		stope to these po	oois via sneet now. Foois probably
10	Timed when constitut	aon or road p	revenued wa	11011	. rummig	V11.		

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sa	mpling Date:	11/11/14	ļ
Applicant/Owner: B. Brouhard						State:CA	Saı	mpling Point	:W46	
Investigator(s): D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S	32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local	relief (concave,	conve	x, none):cond	cave	SI	lope (%):3	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	720194	4	Long	g:-121.7777(04	 Dat	tum:WGS	84
Soil Map Unit Name: Doemill-Jokerst		opes			_ `	NWI cl	assificatio	n:Vernal po	ool	
Are climatic / hydrologic conditions on th	•	-	ear? Ye	es (•) No ($\overline{}$	(If no, explai				
		ignificantly				al Circumstan		,	No	
		aturally pro				explain any a			,	
SUMMARY OF FINDINGS - At	, 0, 🗀	, ,		`					eatures	, etc.
Hydrophytic Vegetation Present?		o ()				·	· · · · · · · · · · · · · · · · · · ·			
Hydric Soil Present?	Yes No	0		Is the Sampled	d Area					
Wetland Hydrology Present?	Yes No	0		within a Wetla	nd?	Yes	•	No 🔘		
Remarks:										
VEGETATION										
Tree Stratum (Use scientific names.) 1.		Absolute % Cover		nant Indicator les? Status	Num	ninance Test nber of Domin t Are OBL, FA	ant Speci	es	3	(A)
3.						al Number of I cies Across A			4	(B)
4Sapling/Shrub Stratum	Total Cover	r: %				cent of Domin t Are OBL, FA			5.0 %	(A/B)
1.					Prev	valence Inde	x worksh	eet:		
2.					T	Total % Cove	er of:	Multip	ply by:	_
3.					_	species	15	x 1 =	15	
4					_	CW species	15	x 2 =	30	
5					-l	species	20	x 3 =	60	
Herb Stratum	Total Cover	: %				CU species species	-	x 4 = x 5 =	0	
1.Festuca perennis		20	Yes	FAC		•	5		25	(D)
2.Lasthenia fremontii		15	Yes	OBL	_ Coil	umn Totals:	55	(A)	130	(B)
3. Deschampsia danthanoides		15	Yes	FACW	-	Prevalence	Index = E	3/A =	2.36	
4. Poa sp.		5	Yes	Not Listed	_	Irophytic Vec				
5.						Dominance T				
6						Prevalence In Morphologica			a aumnarti	in a
7					- - -			ons (Provid on a separat		ng
8	Total Cover				-	Problematic I	Hydrophyt	ic Vegetation	า ¹ (Explain	1)
Woody Vine Stratum 1		33 /0				icators of hyd	dric soil ar	nd wetland h	ıydrologyı	must
2					_					
% Bare Ground in Herb Stratum 4	Total Cover 5 % Cover	of Biotic C	Crust	%	Veg	Irophytic etation sent?	Yes 🖲) No (\circ	
Remarks:					1.50					

Profile Des	cription: (Describe to	the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	indicators.)
Depth	Matrix	0/		x Feature	es Type ¹	Loc ²	Toyture	Domonto
(inches)	Color (moist)		Color (moist)				Texture	Remarks
0-4	2.5 YR 3/3	97 2.5	YR 4/8	3	<u>C</u>	<u>PL</u>	Clay loam	
	-							·
	-					· ——		
¹Type: C=C	Concentration, D=Deple	tion, RM=Re	duced Matrix. C	S=Cover	ed or Coate	ed Sand Gr	rains 2	Location: PL=Pore Lining, M=Matrix.
								3
	Indicators: (Applicable	to all LRRs,						Problematic Hydric Soils: 3
Histoso	ir (A1) Epipedon (A2)		Sandy Redo	, ,				k (A9) (LRR C) k (A10) (LRR B)
	listic (A3)		Loamy Muc	, ,				Vertic (F18)
	en Sulfide (A4)		Loamy Gle					nt Material (TF2)
	ed Layers (A5) (LRR C)		Depleted M				Other (Exp	plain in Remarks)
1 cm M	uck (A9) (LRR D)		Redox Darl	s Surface	e (F6)			
	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	Park Surface (A12)		Redox Dep		(F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	IS (F9)				ributed or problematic
	Layer (if present):							·
Type:	Layor (ii procont):							
Depth (ir	iches).		_				Hydric Soil Pre	esent? Yes No
Remarks:							11,411.10 0011 110	
rtomanto.								
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
Primary Ind	icators (minimum of one	e required; ch	eck all that app	y)				y Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)				ment Deposits (B2) (Riverine)
Saturat	ion (A3)		Aquatic In	vertebrat	tes (B13)			Deposits (B3) (Riverine)
	Marks (B1) (Nonriverin		Hydrogen				=	nage Patterns (B10)
	ent Deposits (B2) (Nonr				eres along	_		Season Water Table (C2)
	eposits (B3) (Nonriveri	ne)			ced Iron (C			fish Burrows (C8)
_	e Soil Cracks (B6)		=		tion in Plov	ved Soils (· <u>—</u>	ration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial Im	agery (B7)	Thin Muck		, ,			ow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	plain in R	emarks)		FAC-	-Neutral Test (D5)
Field Obse			O 5 4 6					
		s O No						
Water Table		s O No		<i>′</i> —				
Saturation F (includes ca	Present? Yes apillary fringe)	s O No	Depth (in	ches):		Wetl	and Hydrology P	resent? Yes No
	ecorded Data (stream g	jauge, monito	ring well, aerial	photos, p	revious ins			
Remarks:V	ernal pools are locate	ed on a slop	e. The slope is	fairly s	steep (5-8	% slope) a	at the top and le	vels out to approximately 3-5% as
	-		-	-			-	ools via sheet flow. Pools probably
fo	rmed when construc	tion of road	prevented wa	ter from	running	off.	•	- •

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sa	mpling Date:	11/11/14	
Applicant/Owner: B. Brouhard						State:CA	Saı	mpling Point	:W47	
Investigator(s): D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S	32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	ce		Local	relief (concave,	conve	x, none):conc	ave	SI	lope (%):3	
Subregion (LRR):C - Mediterranean (California	Lat:39.	720194	4	Long	g:-121.7777()4	 Dat	tum:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst		opes			_ `	NWI cla	assificatio	n:Vernal po	ool	
Are climatic / hydrologic conditions on the	*	•	ear? Ye	es (•) No ($\overline{}$	(If no, explain				
		ignificantly				al Circumstan		,	No (
		aturally pr				explain any a				
SUMMARY OF FINDINGS - At	, 0, 🗀	, ,		`					eatures, e	etc.
Hydrophytic Vegetation Present?	Yes No	o ()								
Hydric Soil Present?	Yes No	0		Is the Sample	d Area					
Wetland Hydrology Present? Remarks:	Yes No	0 (within a Wetla	nd?	Yes	•	No 🔘		
VEGETATION										
Tree Stratum (Use scientific names.)		Absolute % Cover		nant Indicator ies? Status		ninance Test				
1.		70 COVEL	Оресі	otatus_		nber of Domin t Are OBL, FA			3 (A	A)
2.			-		-				5 (/	1)
3.			-			al Number of Di cies Across A			3 (E	3)
4.									(,
	Total Cover	r: %				cent of Dominate t Are OBL, FA			00.0 % (A	\/B)
Sapling/Shrub Stratum					Brox	valence Index	, worksh	2011		
12.					_	Total % Cove			ply by:	
3.					_	species	20	x 1 =	20	
4.					_	CW species	15	x 2 =	30	
5.					_	species	20	x 3 =	60	
	Total Cover	: %		<u> </u>	FAC	CU species		x 4 =	0	
Herb Stratum					UPL	species		x 5 =	0	
1. Festuca perennis			Yes	FAC	Colu	ımn Totals:	55	(A)	110	(B)
2.Lasthenia fremontii		15	Yes	OBL	-	Prevalence	Index = F	3/A =	2.00	
3. Deschampsia danthanoides 4. Navarretia leucocephala		$\frac{15}{5}$	Yes No	FACW OBL	Hvd	rophytic Veg			2.00	
5.			110	OBL	_	Dominance T				
6.					×	Prevalence Ir	ndex is ≤3	.0 ¹		
7.						Morphologica				g
8.					1_			on a separat	,	
	Total Cover	55 %			- L	Problematic H	⊣yaropnyt	ic vegetation	ı (Expiain)	
Woody Vine Stratum 1						icators of hyd present.	ric soil ar	nd wetland h	ydrology m	ust
2					_ be	present.				
	Total Cover	: %				rophytic etation				
	5 % Cover	of Biotic C	Crust _	%	_	sent?	Yes •	No (\supset	
Remarks:										

SOIL Sampling Point: $\underline{W47}$

Profile Des	scription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%C	olor (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	95 2.5	YR 4/8	5	C	<u>M</u>	Clay loam	
							-	
¹ Type: C=0	Concentration, D=Deple	etion, RM=Red	uced Matrix. C	S=Covere	ed or Coate	ed Sand Gi		Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicable	e to all LRRs, u	nless otherwise	noted.)				Problematic Hydric Soils: 3
Histoso	, ,		Sandy Redo	. ,				k (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	` ,				k (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)		Loamy Muc	-	. ,			Vertic (F18) nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				<u></u>	plain in Remarks)
	luck (A9) (LRR D)	, i	Redox Darl	` '				
Deplete	ed Below Dark Surface	(A11)	Depleted D	ark Surfa	ice (F7)		o la diseteus ef l	
	Oark Surface (A12)		Redox Dep		(F8)			hydrophytic vegetation and drology must be present.
	Mucky Mineral (S1)		∨ Vernal Poo	ls (F9)				ributed or problematic
	Gleyed Matrix (S4)						unioso disc	insulated of problematic
	Layer (if present):							
Type:	achae):		_				Hydria Sail Br	esent? Yes No
Depth (in Remarks:	iches).						Hydric Soil Pre	esent? Yes (•) No (
Remarks.								
HYDROLO	OGY							
Wetland H	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; ch	eck all that app	y)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Saturat	tion (A3)		Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri r	ne)	Hydrogen					nage Patterns (B10)
	ent Deposits (B2) (Non				•	Living Roo	ots (C3) Dry-S	Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)			ed Iron (C			fish Burrows (C8)
	e Soil Cracks (B6)		=			ved Soils (· 🖳	ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		` '			low Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	plain in R	emarks)		FAC-	-Neutral Test (D5)
Field Obse		- O N: (Describe (in	-1				
		es No (′ —				
Water Table		es No (
Saturation I	Present? Ye apillary fringe)	es O No (Depth (in	ches):		Wetl	and Hydrology P	resent? Yes No
	ecorded Data (stream	gauge, monitor	ing well, aerial	photos, p	revious ins			
Remarks:V	ernal pools are locat	ted on a slope	. The slope is	fairly s	teep (5-8	% slope)	at the top and le	vels out to approximately 3-5% as
	•		-	-			•	pols via sheet flow. Pools probably
	ormed when construc	•	_		•		1	

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:	V48	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%): <u>3</u>	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	720194		Long:-121.77770	4	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	ol	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic	? (If ne	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	tach site map sl	howing	sampli	ing point l	ocations, transe	cts, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No O		
VEGETATION									
Tree Stratum (Use scientific names.) 1		Absolute % Cover		nt Indicator Status	Number of Domina That Are OBL, FA	ant Specie	es .		(A)
2. 3.					Total Number of D Species Across Al		3		(B)
4Sapling/Shrub Stratum	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	_
3.					OBL species	20	x 1 =	20	
4					FACW species	25	x 2 =	50	
5					FAC species	20	x 3 =	60	
Herb Stratum	Total Cover:	%			FACU species UPL species	-	x 4 =	0	
1.Festuca perennis		20	Yes	FAC	'	5	x 5 =	25	(D)
2-Lasthenia fremontii		20	Yes	OBL	Column Totals:	70	(A)	155	(B)
3. Deschampsia danthanoides		25	Yes	FACW	Prevalence I	ndex = B	/A =	2.21	
4. Poa sp.		5	No	Not Listed	Hydrophytic Veg				
5.					X Dominance Te				
6					× Prevalence In				
7					Morphological	Adaptation	ons' (Provide on a separate	supporting sheet)	ng
8	Total Cover:				Problematic H			,)
Woody Vine Stratum	Total Cover.	70 %							
1. 2.				_	¹ Indicators of hydrough be present.	ric soil an	d wetland hy	drology n	nust
2	Total Cover:	%			Hydrophytic Vegetation				
	0 % Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W48}$

Profile Des	cription: (Describe t	o the depth ne	eded to docur	nent the	indicator	or confirn	n the absence of i	ndicators.)
Depth	Matrix			k Feature	es			
(inches)	Color (moist)	%Co	lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	95 2.5 Y	R 4/8	5	C	<u>M</u>	Clay loam	
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ² I	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators for P	roblematic Hydric Soils: 3
Histoso	ol (A1)		Sandy Redo	x (S5)				(A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,				(A10) (LRR B)
	Histic (A3)		Loamy Muc	-	, ,		Reduced V	,
	en Sulfide (A4)	.,	Loamy Gley					t Material (TF2)
	ed Layers (A5) (LRR C luck (A9) (LRR D)	·)	Depleted M Redox Dark	` '			Uther (Exp	lain in Remarks)
	ed Below Dark Surface	_ Δ (Δ11)	Depleted Da		` '			
	Dark Surface (A12)		Redox Dep		` ,			ydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		(- /			drology must be present.
Sandy	Gleyed Matrix (S4)		_				unless distr	ibuted or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ii	nches):						Hydric Soil Pre	sent? Yes ● No ○
Remarks:								
	20V							
HYDROLO								
	ydrology Indicators:			,			Sacandan	Indicators (2 or more required)
	icators (minimum of or	<u>ne required; che</u>						r Marks (B1) (Riverine)
	e Water (A1)		Salt Crust	` '				
	ater Table (A2)		Biotic Crus	` '	(5.40)			nent Deposits (B2) (Riverine)
	tion (A3)	,	Aquatic In				= -	Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri	· '	Hydrogen		. ,	Listen Dee		age Patterns (B10) eason Water Table (C2)
	ent Deposits (B2) (Non				_	Living Roo		, ,
	eposits (B3) (Nonriver i e Soil Cracks (B6)	ine)	Presence			4) ved Soils ((ish Burrows (C8) ation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagon/(B7) [Thin Muck			veu Solis (ow Aquitard (D3)
	Stained Leaves (B9)	liagery (br)	Other (Exp					Neutral Test (D5)
Field Obse		L		naiii iii K	emarks)	1		Neutral Test (D3)
		es No 💽	Depth (in	chae).				
Water Table		es No (•		· —				
Saturation I (includes ca	apillary fringe)	es O No 🗨	Depth (in	cnes):		Wetl	and Hydrology Pr	esent? Yes No
	ecorded Data (stream	gauge, monitorii	ng well, aerial ı	ohotos, p	revious ins	spections),	if available:	
Remarks:V	ernal pools are locat	ted on a slope	. The slope i	s fairly	steep (5-8	3% slope)	at the top and le	vels out to approximately 3-5%
	•			-				pools via sheet flow. Pools
pı	obably formed whe	n construction	of road prev	ented w	ater from	running	off.	

Project/Site: The Valley's Edge			City/Cour	ty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:W	V49	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conca	ave	Slop	pe (%):3	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770	4	 Datur	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If ne	eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point le	ocations, transe	cts, im	oortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		t Indicator	Dominance Test				
1.	_	76 COVEL	Species	Status	Number of Domina That Are OBL, FAC				(A)
2.				_	-		.0. 5		(71)
3.					 Total Number of D Species Across All 		4		(B)
4.					- - Percent of Domina		e		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAC			.0 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.				-	Total % Cover		Multiply	y by:	_
3.					OBL species	15	x 1 =	15	
4.					FACW species	30	x 2 =	60	
5.					FAC species	20	x 3 =	60	
Liant Chratein	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1.Festuca perennis		20	Yes	FAC	UPL species	5	x 5 =	25	
2.Lasthenia fremontii		15	Yes	OBL	Column Totals:	70	(A)	160	(B)
3. Deschampsia danthanoides		30	Yes	FACW	Prevalence I	ndex = B/	'A =	2.29	
4. Poa sp.		5	Yes	Not Listed	Hydrophytic Vege	etation In	dicators:		
5.					X Dominance Te	est is >509	%		
6.					× Prevalence Inc				
7.					Morphological	Adaptatio	ons ¹ (Provide on a separate	supportir	ng
8					- Problematic H			,)
Woody Vine Stratum	Total Cover:	70 %				y a op y	o rogotation	(=/\pi\a)	,
1				_	¹ Indicators of hydr be present.	ic soil and	d wetland hyd	drology n	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum30	% Cover 0	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No 〇		
Remarks:					1				

SOIL Sampling Point: $\underline{W49}$

Profile Des	cription: (Describe to	o the denth neg	aded to docur	nent the	indicator	or confirm	n the absence of	indicators)
Depth	Matrix	o the depth he		k Feature		or commi	i the absence of	muicators.)
(inches)	Color (moist)	% Co	lor (moist)	<u>K Feature</u> %	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	97 2.5 Y	R 4/8	3	C	M	Clay loam	
	2.5 11 3/5		17.0				Citay Ioani	-
								-
					-			
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Cover	ed or Coate	ed Sand Gr	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydria Sail	Indicators: (Applicable	to all I BBs up	loce otherwice	noted \			Indicators for	Problematic Hydric Soils: 3
Histoso		e to all ERRS, uli	Sandy Redo					k (A9) (LRR C)
=	pipedon (A2)	-	Stripped Ma	` '			_	k (A10) (LRR B)
	listic (A3)		Loamy Muc	, ,				Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matr	ix (F2)		Red Pare	nt Material (TF2)
Stratifie	ed Layers (A5) (LRR C)	Depleted M	atrix (F3)		Other (Ex	plain in Remarks)
	uck (A9) (LRR D)		Redox Dark		` '			
	ed Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators of I	hydrophytic vegetation and
	Park Surface (A12) Mucky Mineral (S1)	Ļ	Redox Depi		(F8)			drology must be present.
	Gleyed Matrix (S4)	L	_ vernai Fooi	S (F9)			unless dist	tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches).						Hydric Soil Pro	esent? Yes No
Remarks:							11,4110 001111	
rtemants.								
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
	icators (minimum of on	ne required; che	ck all that appl	y)			Secondar	ry Indicators (2 or more required)
	Water (A1)	. [Salt Crust				Wate	er Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Crus	st (B12)			Sedi	ment Deposits (B2) (Riverine)
	ion (A3)		Aquatic In		tes (B13)		Drift	Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriverir	ne)	Hydrogen	Sulfide (Odor (C1)		X Drair	nage Patterns (B10)
X Sedime	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)
Drift De	eposits (B3) (Nonriveri	ne)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)	[Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	low Aquitard (D3)
Water-S	Stained Leaves (B9)	[Other (Exp	lain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s O No 💽	Depth (in	ches):				
Water Table	e Present? Ye	s No 💿	Depth (in	ches):				
Saturation F		s No 💿	Depth (in	ches):		Weth	and Undralage D	resent? Yes No
	pillary fringe) ecorded Data (stream ç	nauge monitori	ng well aerial i	nhotos r	revious ins		and Hydrology P	resent? Yes (•) No (
Describe 14	Sooraca Data (Stream (gaage, monitorii	ig well, aeriai į	5110100, p	orovious inc	pootionoj,	ii avaliabic.	
Pomarke:V	arnal maala ara laaat	ed on a clona	The clone is	foirly	staan (5 0)	0/ slope)	at the ten and le	vels out to approximately 3-5% as
			-	-				ools via sheet flow. Pools probably
	approaches the vern				•		stope to these pe	ons via silect flow. Foois probably
10	inica when constitut	o. 01 10au p	10 rollica wa	11UII	. rumming	VII.		

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:	V50	
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	nge:S 32, T 22N, F	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770	4	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (• No ((If no, explain	in Remai	·ks.)		
			disturbed		"Normal Circumstand	es" prese	nt? Yes	No	\bigcirc
			oblematic?		eeded, explain any ar	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	atures.	etc.
	·			3	,	,			
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	_	la.	tha Campla	l Avon				
Wetland Hydrology Present?	_			the Sampled thin a Wetla			No O		
Remarks:	100 (3)		WI	um a vvena	iiu: ies		140 🔾		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute	Dominan Species?	t Indicator	Dominance Test				
1.		70 COVEL	<u>Opecies</u> :	<u> </u>	Number of Domina That Are OBL, FAC				(A)
2.					-		.o. <i>j</i>		(, ,)
3.				-	 Total Number of D Species Across All 		3		(B)
4.				•	_				(-)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum								70	
1					Prevalence Index Total % Cover			, by	
2. 3.				-	OBL species	20	Multiply x 1 =	20	
4.					FACW species	20	x 2 =	40	
5.				-	FAC species	20	x 3 =	60	
	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum					UPL species	5	x 5 =	25	
1. Festuca perennis		20	Yes	FAC	Column Totals:	65	(A)	145	(B)
2.Lasthenia fremontii		20	Yes	OBL	Prevalence I	ndev – B	Δ –	2.23	
3. Deschampsia danthanoides		20	Yes	FACW	Hydrophytic Vege			2.23	
4. <i>Poa sp.</i> 5.		5	<u>No</u>	Not Listed	X Dominance Te				
6.					× Prevalence In				
7.				-	Morphological	Adaptatio	ns ¹ (Provide	supporti	ng
8.				-			n a separate		
	Total Cover:	65 %		_	Problematic H	ydrophytic	C Vegetation ¹	(Explain	1)
Woody Vine Stratum		05 /0			11		dd b	deed a second	
1				_	Indicators of hydr be present.	ic soil and	d wetland hyd	rology r	must
2				_	Llydrophytic				
	Total Cover:	%			Hydrophytic Vegetation				
	5 %	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No C	1	
Remarks:					_				

Profile Des	scription: (Describe	to the depth ne	eded to docur	nent the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	98 2.5	YR 4/8	2	C	<u>M</u>	Clay loam	
	-							
	· .							
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Red	uced Matrix. CS	S=Covere	ed or Coate	ed Sand G		² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicab	le to all LRRs, u						or Problematic Hydric Soils: 3
Histoso	, ,		Sandy Redo	. ,				uck (A9) (LRR C)
	Epipedon (A2) Histic (A3)	Ĺ	Stripped Ma	, ,				luck (A10) (LRR B) ed Vertic (F18)
	gen Sulfide (A4)	Ĺ	Loamy Gley	-	, ,			rent Material (TF2)
	ed Layers (A5) (LRR (C)	Depleted M				<u></u>	Explain in Remarks)
	luck (A9) (LRR D)	ĺ	Redox Dark	Surface	(F6)		` `	,
	ed Below Dark Surfac	e (A11)	Depleted D		` ,		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			hydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Pool	s (F9)				distributed or problematic
	Layer (if present):							<u> </u>
Type:	Layer (ii present).							
Depth (ii	nches):		_				Hydric Soil	Present? Yes No
Remarks:							Tiyane con	Tresent: Tes © No
rtomanto.								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	licators (minimum of c	one required; che	eck all that appl	y)				dary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)				/ater Marks (B1) (Riverine)
High W	/ater Table (A2)		Biotic Crus					ediment Deposits (B2) (Riverine)
	tion (A3)		Aquatic In		. ,			rift Deposits (B3) (Riverine)
	Marks (B1) (Nonriver		Hydrogen					rainage Patterns (B10)
	ent Deposits (B2) (No	,			eres along	•	` ' 🖳	ry-Season Water Table (C2)
	eposits (B3) (Nonrive	rine)			ced Iron (C	•		rayfish Burrows (C8)
	e Soil Cracks (B6) tion Visible on Aerial I	Imagany (P7)	Thin Muck		tion in Plov	ved Solls (aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
	Stained Leaves (B9)	illiagery (Br)	Other (Exp		` '			AC-Neutral Test (D5)
Field Obse			Other (EX	, an in it	- Ciriarito)			to reduct root (20)
		es No (Depth (in	ches):				
Water Table		es No		′ —				
Saturation I		es No						
(includes ca	apillary fringe)		, ,	· —				Present? Yes No
Describe R	ecorded Data (stream	gauge, monitor	ng well, aerial	ohotos, p	revious ins	spections),	, if available:	
								rels out to approximately 3-5% as it
							ope to these po	ools via sheet flow. Pools probably
fc	ormed when constru	action of road	prevented wa	ter from	running	011.		

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sa	mpling Date:	11/11/14	<u> </u>
Applicant/Owner: B. Brouhard						State:CA	Saı	mpling Point	:W51	
Investigator(s): D. Machek, E. Gregg			Sectio	n, Township, Ra	ange:S	32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local	relief (concave,	conve	x, none):cond	cave	SI	lope (%):3	í
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	720194	1	Long	g:-121.7777()4	 Dat	tum:WGS	84
Soil Map Unit Name: Doemill-Jokerst		opes			_	NWI cla	assificatio	n:Vernal po	ool	
Are climatic / hydrologic conditions on th	*	•	ear? Ye	es (•) No ($\overline{}$	(If no, explai				
		gnificantly				al Circumstan		,) No	
		aturally pro				explain any a	•		,	
SUMMARY OF FINDINGS - At	, 0,	, ,		,					eatures	, etc.
Hydrophytic Vegetation Present?	Yes No	o (i)								
Hydric Soil Present?	Yes No	0		Is the Sampled	d Area					
Wetland Hydrology Present?	Yes No	0		within a Wetlan	nd?	Yes	•	No 🔘		
VEGETATION										
		Absolute	Domir	nant Indicator	Don	ninance Test	workshe	et:		
Tree Stratum (Use scientific names.) 1.	-	% Cover	Speci	es? Status		nber of Domin t Are OBL, FA			3	(A)
2. 3.						al Number of I cies Across A			4	(B)
4Sapling/Shrub Stratum	Total Cover	·: %				cent of Domin t Are OBL, FA			5.0 %	(A/B)
1.					Pre	valence Inde	x worksh	eet:		
2.					_	Total % Cove			ply by:	
3.					OBL	_ species	15	x 1 =	15	
4.					FAC	CW species	15	x 2 =	30	
5.					FAC	species	20	x 3 =	60	
Heat Otraction	Total Cover:	%			FAC	CU species		x 4 =	0	
Herb Stratum		20	Vac	FAG	UPL	species	5	x 5 =	25	
Festuca perennis Lasthenia fremontii		$\frac{20}{15}$	$\frac{\text{Yes}}{\text{Yes}}$	FAC OBL	Colu	umn Totals:	55	(A)	130	(B)
3. Deschampsia danthanoides		15	Yes	FACW	-	Prevalence	Index = E	3/A =	2.36	
4. Poa sp.		5	$\frac{\text{Tes}}{\text{Yes}}$	Not Listed	Hyd	Irophytic Veg	etation Ir	ndicators:		
5.					×	Dominance T	est is >50	%		
6.						Prevalence Ir				
7.						Morphologica		ons¹ (Provid on a separat		ing
8	Total Cover:				-	Problematic I			•	า)
Woody Vine Stratum 1		33 70				icators of hyc	lric soil ar	nd wetland h	ıydrology	must
2					-	present.				
% Bare Ground in Herb Stratum 4	Total Cover:	of Biotic C	Crust	%	Veg	Irophytic etation sent?	Yes •) No ($\overline{}$	
Remarks:	70 00001	5. 5.0.00		70	. 16.		.03 @	. 110 (

Profile Des	cription: (Describe t	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 3/3	99 2.5	YR 4/8	1	C	<u>M</u>	Clay loam	
	-						-	·
¹ Type: C=0	Concentration, D=Depl	etion, RM=Red	duced Matrix. C	S=Covere	ed or Coate	ed Sand G		Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applicable	e to all LRRs, ι	ınless otherwise	noted.)				Problematic Hydric Soils: 3
Histoso	• •		Sandy Redo	. ,				k (A9) (LRR C)
	Epipedon (A2)		Stripped M	` ,	ol (E4)		<u> </u>	k (A10) (LRR B)
	Histic (A3) Jen Sulfide (A4)		Loamy Mud	-	, ,		_	Vertic (F18) nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M					plain in Remarks)
	luck (A9) (LRR D)	,	Redox Dar	, ,				piani in itemano,
	ed Below Dark Surface	(A11)	Depleted D	ark Surfa	ce (F7)			
Thick D	Dark Surface (A12)		Redox Dep	ressions	(F8)			hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				drology must be present.
	Gleyed Matrix (S4)						uriless dist	ributed or problematic
	Layer (if present):							
Type:			_					
Depth (ir	nches):						Hydric Soil Pre	esent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
	icators (minimum of or	ne required; ch	eck all that app	ly)			Secondar	ry Indicators (2 or more required)
Surface	e Water (A1)	•	Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru	` '			Sedi	ment Deposits (B2) (Riverine)
	tion (A3)		Aquatic In		es (B13)		Drift	Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri i	ne)	Hydrogen		. ,		X Drair	nage Patterns (B10)
	ent Deposits (B2) (Non					Living Roo	ots (C3) Dry-S	Season Water Table (C2)
	eposits (B3) (Nonriveri		Presence	of Reduc	ed Iron (C	4)	Cray	fish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	low Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	olain in R	emarks)		FAC-	-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es No (Depth (in	ches):				
Water Table	e Present? Ye	es No (Depth (in	ches):				
Saturation F	Present? Ye	es No (Depth (in	ches):				
(includes ca	apillary fringe)			· —			and Hydrology P	resent? Yes No
Describe Re	ecorded Data (stream	gauge, monito	rıng weil, aerial	pnotos, p	revious ins	spections),	ıı avalladle:	
	•			•				vels out to approximately 3-5% as
	* *	-	_		•		slope to these po	ools via sheet flow. Pools probably
10	ormed when construc	cuon oi road	prevented wa	ter from	running	011.		

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point: \overline{V}	V52
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E		
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%):3
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770	4	Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	01
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	in Remar	·ks.)	
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If ne	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point le	ocations, transe	cts, im	oortant fea	atures, etc.
Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes No		Is	the Sample	d Area			
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No O	
Remarks:								
VEGETATION								
Tree Stratum (Use scientific names.)		Absolute		t Indicator	Dominance Test			
Tree Stratum (Use scientific names.) 1.		76 COVEL	Species	Status	Number of Domina That Are OBL, FA			(A)
2.				_	-	•	.o. <i>j</i>	(71)
3.					 Total Number of D Species Across Al 		4	. (B)
4.					- Percent of Domina		c	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.				-	Total % Cove		Multiply	y by:
3.					OBL species	25	x 1 =	25
4.					FACW species	15	x 2 =	30
5.					FAC species	20	x 3 =	60
Liant Chartern	Total Cover:	%			FACU species		x 4 =	0
Herb Stratum 1 Factured parameter		20	Yes	EAC	UPL species	5	x 5 =	25
Festuca perennis Lasthenia fremontii		20	Yes	- FAC OBL	Column Totals:	65	(A)	140 (B)
3. Deschampsia danthanoides		15	Yes	FACW	Prevalence I	ndex = B/	'A =	2.15
4. Poa sp.		5	Yes	Not Listed	Hydrophytic Veg	etation In	dicators:	
5.					X Dominance Te	est is >50%	%	
6.				-	× Prevalence In	dex is ≤3.0	D ¹	
7.					Morphological	Adaptatio	ons¹ (Provide on a separate	supporting
8.					- Problematic H		•	,
Woody Vine Stratum	Total Cover:	65 %				iyaropiiyar	o vogotation	(Explair)
1					¹ Indicators of hydrobe present.	ric soil and	d wetland hy	drology must
2	Total Cover:	%		-	Hydrophytic			
% Bare Ground in Herb Stratum35	5 % % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes	No C)
Remarks:	 _				I.			

Profile Des	scription: (Describe t	to the depth nee	ded to docur	nent the	indicator	or confirn	n the absence of i	ndicators.)				
Depth	Matrix			c Feature	es							
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 3/3	97 2.5 Y	R 4/8	3	C	<u>PL</u>	Clay loam					
	-											
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	ess otherwise	noted.)			Indicators for F	Problematic Hydric Soils: ³				
Histoso			Sandy Redo					(A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	. ,				(A10) (LRR B)				
	Histic (A3)		Loamy Muc	-	, ,		<u> </u>	/ertic (F18)				
	gen Sulfide (A4)	.,	Loamy Gley				=	nt Material (TF2)				
	ed Layers (A5) (LRR C	<u> </u>	Depleted M Redox Dark	, ,			Other (Exp	olain in Remarks)				
	luck (A9) (LRR D) ed Below Dark Surface	\(\(\(\(\) \) \)	Depleted Dark		` ,							
	Dark Surface (A12)	(A11)	Redox Depi		` '			ydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Pool		(. 0)		wetland hydrology must be present.					
	Gleyed Matrix (S4)			,			unless distr	ributed or problematic				
Restrictive	Layer (if present):											
Type:												
Depth (ii	nches):						Hydric Soil Pre	esent? Yes No				
Remarks:												
HYDROL	OGY											
Wetland H	ydrology Indicators:											
Primary Ind	licators (minimum of or	ne required; chec	k all that appl	y)				y Indicators (2 or more required)				
Surface	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)				
High W	ater Table (A2)		Biotic Crus	st (B12)			Sedir	ment Deposits (B2) (Riverine)				
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)		Drift [Deposits (B3) (Riverine)				
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide C	Odor (C1)			age Patterns (B10)				
Sedime	ent Deposits (B2) (Non	rriverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)				
	eposits (B3) (Nonriver	ine)	Presence					ish Burrows (C8)				
	e Soil Cracks (B6)	Ĺ	Recent Iro			ved Soils (ation Visible on Aerial Imagery (C9)				
	tion Visible on Aerial Ir	magery (B7)	Thin Muck					ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-	Neutral Test (D5)				
Field Obse												
Surface Wa		es No 💿	Depth (in	ches):								
Water Table	e Present? Ye	es No 💿	Depth (in	ches):								
Saturation I	Present? Yeapillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology Pr	resent? Yes No				
	ecorded Data (stream	gauge, monitorin	g well, aerial	ohotos, p	revious ins							
	·											
Remarks:V	ernal pools are loca	ted on a slone	The slope is	fairly s	teen (5-8	% slope)	at the ton and lev	vels out to approximately 3-5% as				
				-			•	ols via sheet flow. Pools probably				
	ormed when constru				•		- F mese po	producty				
		- · · · · · · · · · · · ·			3							

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	npling Point:\	N53	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	720194		Long:-121.77770	4	Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	ol	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No (\circ
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic	? (If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	tach site map sl	howing	sampli	ing point l	ocations, transe	cts, im	portant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		nt Indicator	Dominance Test				
Tree Stratum (Use scientific names.) 1.	_	% Cover	Species	? Status	Number of Domina That Are OBL, FA			} ((A)
2.					-				., .,
3.					 Total Number of D Species Across Al 		3	} ((B)
4.					- ' - Percent of Domina		c		,
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0.0 %	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove		Multipl	y by:	
3.			-		OBL species	15	x 1 =	15	
4.					FACW species	20	x 2 =	40	
5.					FAC species	20	x 3 =	60	
Llorb Ctroturo	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1.Festuca perennis		20	Yes	FAC	UPL species	5	x 5 =	25	
2. Lasthenia fremontii		15	Yes	OBL	Column Totals:	60	(A)	140	(B)
3. Deschampsia danthanoides		20	Yes	FACW	Prevalence I	ndex = B	/A =	2.33	
4. Poa sp.		5	No	Not Listed	Hydrophytic Vege	etation In	dicators:		
5.					X Dominance Te	est is >50°	%		
6.					× Prevalence In				
7					Morphological	Adaptation	ons¹ (Provide on a separate	supportin	ıg
8					- Problematic H			,)
Woody Vine Stratum	Total Cover:	60 %				, , ,	Ü	(
1				_	¹ Indicators of hydrobe present.	ric soil an	d wetland hy	drology m	nust
2	Total Cover:	%			Hydrophytic				
	0 % Cover	of Biotic C	Crust	<u>%</u>	Vegetation Present?	Yes •	No C)	
Remarks:					_				

Soll Sampling Point: $\underline{W53}$

Profile Description: (Describe t	to the depth need	led to docum	nent the	indicator	or confirn	n the absence of i	indicators.)				
Depth Matrix			Feature	es							
(inches) Color (moist)	% Colo	r (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-42.5 YR 3/3	97 2.5 YR	4/8	3	C	<u>M</u>	Clay loam					
¹ Type: C=Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil Indicators: (Applicabl	e to all LRRs, unle	ss otherwise	noted.)			Indicators for F	Problematic Hydric Soils: ³				
Histosol (A1)		Sandy Redox	(S5)				k (A9) (LRR C)				
Histic Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)				
Black Histic (A3)		Loamy Muck	•	, ,		<u> </u>	Vertic (F18)				
Hydrogen Sulfide (A4)	📙	Loamy Gley					nt Material (TF2)				
Stratified Layers (A5) (LRR C	;)	Depleted Ma Redox Dark	, ,			U Other (Exp	plain in Remarks)				
1 cm Muck (A9) (LRR D) Depleted Below Dark Surface) (A11)	Depleted Da		` '							
Thick Dark Surface (A12)	(ATT)	Redox Depr		` '			nydrophytic vegetation and				
Sandy Mucky Mineral (S1)		Vernal Pools		(. 0)		wetland hydrology must be present.					
Sandy Gleyed Matrix (S4)			` ,			unless dist	ributed or problematic				
Restrictive Layer (if present):											
Type:											
Depth (inches):						Hydric Soil Pre	esent? Yes No				
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators:											
Primary Indicators (minimum of or	ne required; check	all that apply	/)				y Indicators (2 or more required)				
Surface Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)				
High Water Table (A2)		Biotic Crus	t (B12)			Sedi	ment Deposits (B2) (Riverine)				
Saturation (A3)		Aquatic Inv	ertebrat	es (B13)		Drift	Deposits (B3) (Riverine)				
Water Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide C	Odor (C1)			nage Patterns (B10)				
X Sediment Deposits (B2) (Nor	nriverine)	Oxidized R	hizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)				
Drift Deposits (B3) (Nonriver	rine)	Presence of	of Reduc	ed Iron (C	4)	Cray	fish Burrows (C8)				
Surface Soil Cracks (B6)		Recent Iron	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)				
Inundation Visible on Aerial I	magery (B7)	Thin Muck					ow Aquitard (D3)				
Water-Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-	-Neutral Test (D5)				
Field Observations:											
	es No	Depth (inc	hes):								
Water Table Present? Ye	es No	Depth (inc	:hes):								
Saturation Present? Ye (includes capillary fringe)	es O No •	Depth (inc	:hes):		Wetl	and Hydrology Pi	resent? Yes No				
Describe Recorded Data (stream	gauge, monitoring	well, aerial p	hotos, p	revious ins							
•											
Remarks: Vernal pools are loca	ited on a slope "	The slope is	fairly s	teen (5-8	% slope)	at the top and lev	vels out to approximately 3-5% as				
-		-	-			-	ools via sheet flow. Pools probably				
formed when constru				•		. г меже ро	2 3015 producty				
	F -			3							

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:	V54	
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conca	ave	Slop	pe (%):3	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	720194		Long:-121.77770	4	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	in Remar	·ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If ne	eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point le	ocations, transe	cts, imp	oortant fea	atures, et	t c .
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
		Absolute		t Indicator	Dominance Test	workshee	rt:		
Tree Stratum (Use scientific names.)	<u> </u>	% Cover	Species?	Status_	Number of Domina			(4)	
1. 2.			-		That Are OBL, FAC	۷۷, or FA	.C: 3	(A)	
3.					Total Number of D Species Across All		3	(B)	ı
4					Percent of Domina	nt Specie:	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAC).0 % (A/E	3)
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	of:	Multiply	y by:	
3.				•	OBL species	15	x 1 =	15	
4.				-	FACW species	20	x 2 =	40	
5.					FAC species	20	x 3 =	60	
Hart Otratura	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum 1 Footbook managing		20	Yes	FAC	UPL species		x 5 =	0	
Festuca perennis Lasthenia fremontii		20 15	Yes	- FAC OBL	Column Totals:	55	(A)	115 ((B)
3. Deschampsia danthanoides		15	Yes	FACW	Prevalence I	ndex = B/	'A =	2.09	
4. Lythrum sp.		5	No	FACW	Hydrophytic Vege	etation Inc	dicators:		
5.				-	X Dominance Te	est is >50%	%		
6.				_	× Prevalence Inc	dex is ≤3.0	D ¹		
7.					Morphological	Adaptatio	ons ¹ (Provide	supporting	
8.					data in Rer		n a separate	,	
We at West Obstant	Total Cover:	55 %			- D Problematic H	yaropriyud	vegetation	(Explairi)	
Woody Vine Stratum					¹ Indicators of hydr	ic soil and	d wetland hy	drology mus	st
1. 2.				_	be present.	10 0011 arre	a wonana ny	arology mac	,
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum45	5 % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No C)	
Remarks:					•				\neg

Profile Des	cription: (Describe t	to the depth ne	eded to docur	nent the	indicator	or confirn	n the absence of i	ndicators.)				
Depth	Matrix			x Feature	es							
(inches)	Color (moist)	%Co	lor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	2.5 YR 3/3	95 2.5 Y	R 4/8	5	C	<u>M</u>	Clay loam					
	-											
¹ Type: C=C	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3				
Histoso	ol (A1)		Sandy Redo	x (S5)				(A9) (LRR C)				
	pipedon (A2)		Stripped Ma	, ,				(A10) (LRR B)				
	listic (A3)		Loamy Muc					/ertic (F18)				
	en Sulfide (A4)	.,	Loamy Gley				—	nt Material (TF2)				
	ed Layers (A5) (LRR C	<u> </u>	Depleted M Redox Dark	, ,			U Other (Exp	olain in Remarks)				
	luck (A9) (LRR D) ed Below Dark Surface	_ \(Δ11)	Depleted Dark		` '							
	Park Surface (A12)	, (ATT) [S	Redox Dep		` ,			ydrophytic vegetation and				
	Mucky Mineral (S1)	É	Vernal Pool		(. 0)		wetland hydrology must be present.					
	Gleyed Matrix (S4)	L		,			unless distr	ributed or problematic				
Restrictive	Layer (if present):											
Type:												
Depth (ir	nches):						Hydric Soil Pre	esent? Yes No				
Remarks:												
HYDROLO	OGY											
Wetland Hy	drology Indicators:											
Primary Ind	icators (minimum of or	ne required; che	ck all that appl	y)				y Indicators (2 or more required)				
Surface	e Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)				
High W	ater Table (A2)		Biotic Crus	st (B12)			Sedir	ment Deposits (B2) (Riverine)				
Saturat	ion (A3)		Aquatic In	vertebrat	es (B13)		Drift [Deposits (B3) (Riverine)				
Water I	Marks (B1) (Nonriveri i	ne)	Hydrogen	Sulfide C	Odor (C1)			age Patterns (B10)				
× Sedime	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)				
	eposits (B3) (Nonriver	ine)	Presence	of Reduc	ed Iron (C	4)	Crayf	ish Burrows (C8)				
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	wed Soils (C6) Satur	ation Visible on Aerial Imagery (C9)				
	tion Visible on Aerial Ir	magery (B7)	Thin Muck					ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-	Neutral Test (D5)				
Field Obse	rvations:											
Surface Wa	iter Present? Ye	es O No 💽		ches):								
Water Table	e Present? Ye	es 🦳 No 📵	Depth (in	ches):								
Saturation F	1 0	es O No 🖲	Depth (in	ches):		Wetl	and Hydrology Pr	resent? Yes • No				
	apillary fringe) ecorded Data (stream	gauge, monitori	ng well, aerial i	ohotos, p	revious ins			CSCIR: 103 © NO				
Docombo re	soorada Bata (otroam)	gaago, momon	ig won, donar	5110100, p	novious inc	5 pootiono,,	ii availabio.					
Pamarka: 17	ornal nools are la	tod on a class-	The clara in	foiel	toon (5 0	0/ closs)	at the ten and 1	role out to approximately 2 50/				
	•			-				vels out to approximately 3-5% as ols via sheet flow. Pools probably				
	approaches the verrormed when construction				•		stope to mese po	ois via succi now. Foois probably				
10	annea when constitu	chon of road p	nevenieu wa	110111	Tumming	011.						

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W55		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%):5	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	721003		Long:-121.77340	0	 Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No	\bigcirc
			oblematic		eeded, explain any a				
SUMMARY OF FINDINGS - Att							,	atures	etc
				mg pomer		, oto,			
Hydrophytic Vegetation Present? Hydric Soil Present?	_								
Wetland Hydrology Present?	_			the Sampled ithin a Wetla			No (
Remarks:	103 (110		l W	itnin a wetia	na? res		NO U		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		nt Indicator	Dominance Test				
Tree Stratum (Use scientific names.) 1.	_2	% Cover	Species	? Status	Number of Domina That Are OBL, FA				(A)
2.			-		-		ic. 3		(//)
3.					 Total Number of D Species Across Al 		4		(B)
4.					_				
	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 %	(A/B)
Sapling/Shrub Stratum								70	, ,
1				_	Prevalence Index Total % Cover			v bv:	
2. 3.					OBL species	15	Multipl x 1 =	15	
4.					FACW species	15	x 2 =	30	
5.					FAC species	35	x 3 =	105	
	Total Cover:	%			FACU species	15	x 4 =	60	
Herb Stratum					UPL species	5	x 5 =	25	
1. Hordeum marinum gussoneanum	<u> </u>	25	Yes	FAC	Column Totals:	85	(A)	235	(B)
2 Plagiobothrys stipitatus		15	Yes	FACW	Prevalence I	ndov – P	/Λ _	2.76	
3.Bromus hordeaceus		15	Yes	FACU	Hydrophytic Vege			2.70	
4 Lasthenia fremontii		15	Yes	OBL -	→ X Dominance Te				
5. Festuca perennis 6. Poa sp.		10 5	No No	FAC Not Listed	× Prevalence In				
7.			- 140	- Not Listed	Morphological			supporti	ng
8.					data in Rer	marks or o	n a separate	sheet)	
	Total Cover:	85 %			Problematic H	lydrophyti	c Vegetation ¹	(Explain)
Woody Vine Stratum		05 %			1				
1					¹ Indicators of hydr be present.	ric soil an	d wetland hy	drology r	nust
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	5 % % Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:					•				

Depth Mark Redox Features Remarks Depth (color (moist) % Depth (color (moist) % Depth (color (moist) Mark Depth (color (moist) Depth (color	Profile Description: (D	escribe to the dep	th needed to docu	ment the	indicator	or confirm	m the absence of	indicators.)			
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains "Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1)				x Feature							
Type: C=Concentration, D=Depletion, RM=Reduced Metrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Metrix. CS=Covered or Coated Sand Grains Thytics Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosco (A1) Histosco (A2) Sandy Redox (SS) Sandy Redox Matrix (SA) Vernal Pools (F9) Vernal Pools (F9) Vernal Pools (F9) Wetland Hydrology must be present. unless distributed or problematic Restrictive Layer (if present): Type-duripan Depth (inches):4 **Wetland Hydrology Indicators:* **Primary Indicators (minimum of one required; check all that apply) Salt Cruss (B11) Sa	(inches) Color (n	noist) %	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)	0-4 5 YR 3/4	95	2.5 YR 4/8	5	C	M	Gravelly loam				
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)											
Histic Epipedon (A2)	¹ Type: C=Concentration	n, D=Depletion, RM:	=Reduced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	Location: PL=Pore Lining, M=Matrix.			
Histic Epipedon (A2)	Hydric Soil Indicators: (Annlicable to all I R	Re unless otherwise	noted)			Indicators for	Problematic Hydric Soils: 3			
Histic Epipedon (A2)	I —	Applicable to all Liv									
Black Histic (A3))		. ,				* * * * * * * * * * * * * * * * * * * *			
Stratified Layers (A5) (LRR C)	l <u>—</u>	,		. ,				` ,` ,			
Com Muck (A9) (LRR D)	Hydrogen Sulfide (A	14)	Loamy Gle	yed Matri	x (F2)		Red Pare	ent Material (TF2)			
Depleted Below Dark Surface (A11)	Stratified Layers (A	5) (LRR C)	Depleted M	latrix (F3))		Other (E	xplain in Remarks)			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:duripan Depth (inches):4 Remarks: duripan composed of cemented volcanic mudflow HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Surface Water (A3) Surface Water (A3) Surface Water (A4) Surface Water (A4) Surface Marks (B1) (Nonriverine) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Indicators (C7) Surface Soil Cracks (B6) Indicators (C7) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):	<u> </u>	,	Redox Dar	k Surface	(F6)						
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:duripan Depth (inches):4 Remarks: duripan composed of cemented volcanic mudflow HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Riverine)	· — ·	, ,			` ,		3 Indicators of	hydrophytic vegetation and			
Sandy Mukey Marks (S4) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:duripan Depth (inches):4 Remarks: duripan composed of cemented volcanic mudflow Hydric Soil Present? Yes No No Remarks: duripan composed of cemented volcanic mudflow Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Saltration (A3) Saltration (A3) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) (Riverine) Sediment Deposits (B2) (Riverine) Saturation (A3) Sediment Deposits (B2) (Riverine) Saturation (A3) Sediment Deposits (B3) (Riverine) Saturation (A3) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): No Surface Water Present? Yes No Popth (inches): No Surface Water Present?		, ,			(F8)						
Restrictive Layer (if present): Type:duripan Depth (inches):4 Remarks: duripan composed of cemented volcanic mudflow HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Salt Crust (B11) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drainage Patterns (B10) Sediment Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Crayfish Burrows (C8) Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches):	1 📖		Vernal Poo	ls (F9)							
Type:duripan Depth (inches):4 Remarks: duripan composed of cemented volcanic mudflow HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Drainage Patterns (B10) Sediment Deposits (B2) (Riverine) Drainage Patterns (B10) Sediment Deposits (B3) (Riverine) Drainage Patterns (B10) Sediment Deposits (B2) (Riverine) Drainage Patterns (B10) Sediment Deposits (B3) (Riverine) Drainage Patterns (B10) Sediment Deposits (B3) (Riverine) Drainage Patterns (B10) Drainage Patterns (B10) Sediment Deposits (B3) (Riverine) Drainage Patterns (B10) Drainage Patterns (
Pepth (inches):4 Remarks: duripan composed of cemented volcanic mudflow HyDROLOGY		esent):									
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### Wetland Hydrology Indicators: Frimary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)	· · · · -						Hydric Soil P	resent? Yes (● No (
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No • Depth (inches): Water Table Present? Yes No • Depth (inches): Saturation Present? Yes No • Depth (inches): Wetland Hydrology Present? Yes No • No • No • No • No • No • No • No	Remarks: duripan com	posed of cemente	ed volcanic mudfl	ow							
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Saturation (A3)	l <u>⊨</u>	1.0)	<u></u>	` '							
Water Marks (B1) (Nonriverine)		A2)			(D40)			, , , , , ,			
Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Thin Muck Surface (C7) Water Present? Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Water Present? Yes No Epth (inches): Surface Water Present? Yes No Epth (inches): Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aeria	l <u>□</u> ` ′		= '					. , , , ,			
Drift Deposits (B3) (Nonriverine) □ Drift Deposits (B3) (Nonriverine) □ Presence of Reduced Iron (C4) □ Surface Soil Cracks (B6) □ Recent Iron Reduction in Plowed Soils (C6) □ Inundation Visible on Aerial Imagery (B7) □ Thin Muck Surface (C7) □ Shallow Aquitard (D3) □ Water-Stained Leaves (B9) □ Other (Explain in Remarks) □ FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes □ No ● Depth (inches): Water Table Present? Yes □ No ● Depth (inches): Saturation Present? Yes □ No ● Depth (inches): (includes capillary fringe) □ Wetland Hydrology Present? Yes ■ No ● Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		•	י י		` '	District Die	= =				
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Conscious Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					_	-	, ,	,			
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Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes No No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		` '				vea Solis (
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			' =		` '						
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		'es (B9)	Other (Ex	olain in R	emarks)		FAC	-Neutral Test (D5)			
Water Table Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Depth (inches): Wetland Hydrology Present? Yes No No No No No No No No No No No No No											
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches): Uncludes capillary fringe) Wetland Hydrology Present? Yes No No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		_									
(includes capillary fringe) Wetland Hydrology Present? Yes No Composition Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present?	Yes 🔘	No Depth (in	iches):							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Yes 🔘	No Depth (ir	iches):		Wet	land Hudralagu F	Property Ves (a) No			
			onitoring well aerial	nhotos r	revious ins			riesent: les 🕓 No			
Remarks:	2 300 INO TROUBING DAR	. Januarii gaago, iila		F. 10100, F	01.000 1110	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, availabio.				
Nemans.											
	Domarka:										
	Remarks:										
	Remarks:										
	Remarks:										

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W56		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrac	e		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%):5	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	721003		Long:-121.77340	0	 Datu	ım:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No	\bigcirc
			oblematic		eeded, explain any a				
SUMMARY OF FINDINGS - Att				`	, ,		,	atures	etc
	·			mg pomer		, oto,			
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	_							
Wetland Hydrology Present?	Yes No			the Sampled thin a Wetla			No O		
Remarks:	103 (110		l w	itnin a vvetia	na? res		NO U		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.	<u></u>	70 00101	Ороско		Number of Domina That Are OBL, FA			,	(A)
2.			-		-		.0		(, ,)
3.					 Total Number of D Species Across Al 		3		(B)
4.					-				,
	Total Cover:	%			 Percent of Domina That Are OBL, FA 			.7 %	(A/B)
Sapling/Shrub Stratum					Prevalence Index				
1. 2.					Total % Cove		et: Multipl	v bv:	
3.					OBL species	15	x 1 =	15	
4.					FACW species	15	x 2 =	30	
5.					FAC species	35	x 3 =	105	
	Total Cover:	%			FACU species	5	x 4 =	20	
Herb Stratum					UPL species	10	x 5 =	50	
1. Hordeum marinum gussoneanum	!	25	Yes	FAC	Column Totals:	80	(A)	220	(B)
2.Plagiobothrys stipitatus		15	Yes	FACW	Prevalence I	ndev - B	/Δ —	2.75	
3.Bromus hordeaceus		5	Yes	FACU	Hydrophytic Veg			2.13	
4.Lasthenia fremontii 5.Festuca perennis		15 10	No No	OBL FAC	X Dominance Te				
6. Poa sp.		10	No	Not Listed	× Prevalence In				
7.		10			Morphological	Adaptatio	ons¹ (Provide	supporti	ng
8.							on a separate		
	Total Cover:	80 %			Problematic H	lydrophyti	c Vegetation ¹	(Explain)
Woody Vine Stratum		00 /0			1				
1					¹ Indicators of hydibe present.	ric soil an	d wetland hy	drology r	nust
2					_				
	Total Cover:	%			Hydrophytic Vegetation	_	_		
% Bare Ground in Herb Stratum20	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No C)	
Remarks:									

Profile Des	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirm	n the absence of	indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		lor (moist)	%_	Type ¹	Loc ²	Texture	Remarks			
0-4	5 YR 3/4	96 <u></u> 2.5 Y	R 4/8	4	C	PL	Gravelly loam	_			
								_			
				- ——							
								_			
								-			
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	2 Location: PL=Pore Lining, M=Matrix.			
11	In diameters (Amelianti	- (II I DD	la a a a th a mada a				loodingtons for	Problem of a Heatric College			
Hydric Soil Histos	Indicators: (Applicable of (A1)	e to ali LKKS, un	Sandy Redo					Problematic Hydric Soils: 3 ck (A9) (LRR C)			
	Epipedon (A2)	F	Stripped Ma	, ,				ck (A9) (LRR C) ck (A10) (LRR B)			
	Histic (A3)	F	Loamy Muc	. ,				Vertic (F18)			
	gen Sulfide (A4)	-	Loamy Gle	-	, ,			ent Material (TF2)			
	ed Layers (A5) (LRR C	;)	Depleted M					xplain in Remarks)			
	/luck (A9) (LRR D)	´	Redox Dark								
Deplet	ed Below Dark Surface	e (A11)	Depleted D	ark Surfa	ice (F7)		a Indicators of	hudrophytic vegetation and			
	Dark Surface (A12)		Redox Dep		(F8)			hydrophytic vegetation and			
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic				
	Gleyed Matrix (S4)						uniess dis	silbuted of problematic			
	E Layer (if present):										
Type:du	ıripan										
Depth (i	inches):4						Hydric Soil P	resent? Yes No			
Remarks: 0	duripan composed of	f cemented vol	canic mudfl	ow							
HYDROL	OCV										
	ydrology Indicators:										
	dicators (minimum of or	ne required; che	ck all that app	у)				ary Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)				ter Marks (B1) (Riverine)			
High V	Vater Table (A2)		Biotic Cru					diment Deposits (B2) (Riverine)			
Satura	tion (A3)	[Aquatic In	vertebrat	es (B13)			t Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne) [Hydrogen	Sulfide (Odor (C1)			inage Patterns (B10)			
	ent Deposits (B2) (Nor	riverine)	Oxidized I	Rhizosph	eres along	Living Roo	, ,	-Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduc	ed Iron (C	4)	Cra	yfish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Sat	uration Visible on Aerial Imagery (C9)			
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)			ıllow Aquitard (D3)			
Water-	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	es 🦳 No 💽	Depth (in	ches):							
Water Tabl	le Present? Ye	es No 💿	Depth (in	ches):							
Saturation	Present? Ye	es O No 💽	Depth (in	ches):							
	apillary fringe)						land Hydrology I	Present? Yes (•) No (
Describe R	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, p	revious ins	spections),	ıt available:				
Remarks:		·									

Project/Site: The Valley's Edge		City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	<i>V</i> 57	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ief (concave,	convex, none):sligh	tly concar	ve Slop	oe (%):3.	.5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	719166		Long:-121.77257	7	 Datur	n:WGS	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			ssification:	 Wet meado	W		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	n in Remarl	rs.)		
Are Vegetation Soil or Hy	rdrology siç	gnificantly	disturbed	l? Are	"Normal Circumstand	ces" preser	nt? Yes 💿	No	\circ
			oblematic?		eeded, explain any a	nswers in F	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No				·	<u> </u>			
Hydric Soil Present?			Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION		Nh a shata	D		I Bandana Tau				
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Number of Domina				
1.					That Are OBL, FA				(A)
2.					Total Number of D	ominant			
3					Species Across Al		2		(B)
4					Percent of Domina	ant Species	;		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	.0 %	(A/B)
1.					Prevalence Index	workshee	et:		-
2.					Total % Cove	r of:	Multiply	/ by:	_
3.				_	OBL species		x 1 =	0	
4.					FACW species	30	x 2 =	60	
5					FAC species	55	x 3 =	165	
Herb Stratum	Total Cover:	%			FACU species	5	x 4 =	20	
1.Festuca perennis		50	Yes	FAC	UPL species		x 5 =	0	(D)
2. Juncus bufonius		20	Yes	FACW	_ Column Totals:	90	(A)	245	(B)
3. Hordeum marinum gussoneanum	<u> </u>	5	No	FAC	Prevalence I	ndex = B/	A =	2.72	
4.Bromus hordeaceus	·	5	No	FACU	Hydrophytic Veg	etation Inc	licators:		
5.Ranunculus muricatus		10	No	FACW	X Dominance To				
6.					× Prevalence In				
7				_	Morphologica data in Re		ns' (Provide : n a separate		ng
8					- Problematic H			,	1)
Woody Vine Stratum	Total Cover:	90 %				, , ,	o .	` '	,
1					¹ Indicators of hydrobe present.	ric soil and	wetland hyd	r ygolork	nust
2					Hydrophytic				
	Total Cover:				Vegetation				
	0 % Cover	of Biotic C	rust	<u>%</u>	Present?	Yes •	No O		
Remarks:									

Profile Descri	ption: (Describe to	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth _	Matrix			x Feature			- .	5
(inches)	Color (moist)		color (moist)		Type ¹	Loc ²	Texture	Remarks
0-5 2.	.5 YR 3/3	70 2.5	YR 3/6	_ 30	<u>C</u>	<u>M</u>	Clay loam	gravel present
¹ Type: C=Con	centration, D=Deple	etion, RM=Red	duced Matrix. C	S=Cover	ed or Coate	ed Sand Gr	rains 2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Ind	icators: (Applicable	to all LRRs, ι	ınless otherwise	e noted.)			Indicators for I	Problematic Hydric Soils: 3
Histosol (A	,		Sandy Redo	. ,			1 cm Muc	k (A9) (LRR C)
Histic Epip			Stripped M	, ,				k (A10) (LRR B)
Black Histi	Sulfide (A4)		Loamy Mud	-	, ,			Vertic (F18) nt Material (TF2)
	_ayers (A5) (LRR C)	Depleted M	-	, ,		=	plain in Remarks)
	(A9) (LRR D)	•	Redox Dar					
	Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	c Surface (A12) cky Mineral (S1)		Redox Dep Vernal Poo		(F8)			drology must be present.
	eyed Matrix (S4)		vernari oo	13 (1 3)			unless dist	ributed or problematic
	yer (if present):							
Type:								
Depth (inch	es):						Hydric Soil Pre	esent? Yes No
Remarks: Are	a is bog-like							
HYDROLOG								
1	ology Indicators:						Cananda	. Indicators (O. a. mana manuficad)
	tors (minimum of or	ie required; ch						y Indicators (2 or more required) er Marks (B1) (Riverine)
Surface W	()		Salt Crust	` '				ment Deposits (B2) (Riverine)
Saturation	er Table (A2)		Biotic Cru Aquatic In		tes (B13)			Deposits (B3) (Riverine)
	rks (B1) (Nonriveri r	ne)	Hydrogen					nage Patterns (B10)
l <u>==</u>	Deposits (B2) (Non				eres along	Living Roo	= -	Season Water Table (C2)
Drift Depo	sits (B3) (Nonriveri	ne)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface So	oil Cracks (B6)		Recent Iro	on Reduc	tion in Plov	ved Soils (C6) X Satu	ration Visible on Aerial Imagery (C9)
=	Visible on Aerial In	nagery (B7)	Thin Muck		` '			ow Aquitard (D3)
	ined Leaves (B9)		Other (Ex	plain in R	temarks)		FAC-	Neutral Test (D5)
Field Observa		o O No (Donth /in	abaa\.				
Surface Water Water Table Pr		s No (· —				
Saturation Pres		_		· -	0			
(includes capill	ary fringe)	s No (and Hydrology P	resent? Yes No
Describe Reco	rded Data (stream (gauge, monito	ring well, aerial	pnotos, p	previous ins	spections),	ıt available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard		State:CA Sa						V58	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace			Local rel	lief (concave,	convex, none):sligh	tly conca	ve Slop	pe (%):4	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	719166		Long:-121.77257	7	 Datui	m:WGS 8	34
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Wet meado		
Are climatic / hydrologic conditions on the		•	ear? Yes	No ((If no, explair	ı in Remar	'ks.)		
			disturbed		"Normal Circumstand			No ($\overline{}$
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta				`	, ,		,	oturos 4	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ing point it	ocations, transe	icis, iiii	Jortani iea		31G.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Nomano.									
VEGETATION									
T 0: 1 (1) : (5)		Absolute		nt Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina				• >
1					That Are OBL, FA	CW, or FA	C: 4	(A	١)
2					Total Number of D		4	/5	٦١
4.					Species Across Al		4	(E	٥)
	Total Cover:	%			Percent of Domina That Are OBL, FA).0 % (A	\/B)
Sapling/Shrub Stratum		70						.0 % ((10)
1					Prevalence Index				
2					Total % Cove		Multiply		
3					OBL species FACW species	10 35	x 1 = x 2 =	10 70	
4. 5.					FAC species	50	x 2 = x 3 =	150	
J	Total Cover:	%			FACU species	5	x 4 =	20	
Herb Stratum	Total Gover.	70			UPL species	3	x 5 =	0	
1.Hordeum marinum gussoneanum		30	Yes	FAC	Column Totals:	100	(A)	250	(B)
2.Juncus bufonius		15	Yes	FACW					()
3. Festuca perennis		20	Yes	FAC	Prevalence I			2.50	
4. Lythrum sp.		10	No	OBL	Hydrophytic Veg				
5.Bromus hordeaceus		5	No	FACU	X Dominance To				
6.Ranunculus muricatus		20	Yes	FACW	Morphological			supporting	a
7							n a separate		9
8	Total Cover:	100			Problematic H	lydrophytic	C Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	100%							
1					¹ Indicators of hydi	ric soil and	d wetland hyd	drology m	ust
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0	% Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:					1				

Profile Des	cription: (Describe t	o the depth	needed to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	2.5 YR 3/3	$\frac{70}{}$ 2.5	YR 3/6	30	<u>C</u>	<u>M</u>	Clay loam	gravel present
				-				
	-							-
	-					· ——		
	-			_				
Type: C=C	Concentration, D=Deple	etion, RM=Re	educed Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indiantara, (Annlianh)	to all I DDs	unloop othonicio	noted \			Indicators for	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LKKS,	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	, ,			=	ck (A10) (LRR B)
	listic (A3)		Loamy Muc	, ,			<u> </u>	Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-	. ,		=	ent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Ex	cplain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(//11)	Redox Darl Depleted D		, ,			
	Park Surface (A12)	(ATT)	X Redox Dep		` ,		3 Indicators of	hydrophytic vegetation and
🗀	Mucky Mineral (S1)		Vernal Poo		(. 0)			drology must be present.
Sandy	Gleyed Matrix (S4)						unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
Primary Ind	icators (minimum of or	ne required; o	heck all that app	ly)			Seconda	ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	(B11)			☐ Wa	ter Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)			Sed	iment Deposits (B2) (Riverine)
X Saturat	ion (A3)		Aquatic In	vertebrat	es (B13)		Drift	Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri i	ne)	Hydrogen	Sulfide 0	Odor (C1)			nage Patterns (B10)
l <u>—</u>	ent Deposits (B2) (Non	*	Oxidized I	Rhizosph	eres along	Living Ro	ots (C3) Dry-	Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver i	ine)	=		ced Iron (C			fish Burrows (C8)
	e Soil Cracks (B6)	(- -)	=		tion in Plov	ved Soils (uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,			llow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	c-Neutral Test (D5)
Field Obse		es No	Depth (in	ches).				
Water Table		es No		· -				
Saturation F		_	_	· -	0			
	apillary fringe)	es 💿 No	Depth (in		U	Wetl	land Hydrology F	Present? Yes No
Describe Re	ecorded Data (stream	gauge, monit	oring well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:								
I								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W60			
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 33, T 22N, I	R 2E	_			
Landform (hillslope, terrace, etc.): terrace			Local rel	lief (concave,	convex, none):conc	ave	Slop	oe (%):3		
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	717483		Long:-121.76822	9	Datum:WGS 84			
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1		
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstance		,	No	\circ	
			oblematic		eeded, explain any ar	•				
SUMMARY OF FINDINGS - Att	<u> </u>						,	aturo o	oto	
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ng point i	ocations, transe	cis, iiii	Jortani iea	itures,	eic.	
Hydrophytic Vegetation Present?	Yes No	_								
Hydric Soil Present?	Yes No			the Sample		_				
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Tromaine:										
VEGETATION										
Tree Stratum (Use scientific names.)		Absolute		nt Indicator	Dominance Test					
Tree Stratum (Use scientific names.) 1.	_2	76 COVEL	Species	? Status	Number of Domina That Are OBL, FA				(A)	
2.			-		-		.0. 2		(^)	
3.					 Total Number of D Species Across All 		3		(B)	
4.					_				(5)	
	Total Cover:	%			 Percent of Domina That Are OBL, FAG 			7 %	(A/B)	
Sapling/Shrub Stratum								7 70		
1					Prevalence Index			, b		
2					OBL species	5		7 by: 5		
3. 4.				_	FACW species	20	x 1 = x 2 =	40		
5.				<u> </u>	FAC species	35	x 3 =	105		
0	Total Cover:	%			FACU species	10	x 4 =	40		
Herb Stratum		70			UPL species	5	x 5 =	25		
1. Hordeum marinum gussoneanum		30	Yes	FAC	_ Column Totals:	75	(A)	215	(B)	
2.Plagiobothrys stipitatus		15	Yes	FACW						
3.Bromus hordeaceus		10	Yes	FACU	Prevalence I			2.87		
4.Lasthenia fremontii		5	No	OBL	Hydrophytic Vege X Dominance Te					
5. Psilocarphus brevissimus		5	No	FACW	× Prevalence In					
6. Festuca perennis		5	No No	FAC	Morphological			supporti	na	
7. <u>Poa sp.</u> 8.			110	Not Listed	data in Rer	narks or c	n a separate	sheet)	-3	
o	Total Cover:	75 %		<u> </u>	Problematic H	ydrophytic	C Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	15 %								
1				_	¹ Indicators of hydr be present.	ic soil and	d wetland hyd	r ygolork	nust	
2					_					
	Total Cover:	%			Hydrophytic Vegetation					
% Bare Ground in Herb Stratum25	% Cover of	of Biotic C	Crust	%_	Present?	Yes 💿	No 🔘			
Remarks:										

Profile De	scription: (Describe t	to the depth nee	ded to docur	nent the	indicator	or confirn	n the absence of	indicators.)				
Depth	Matrix			c Feature								
(inches)	Color (moist)		or (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	5 YR 3/4	95 2.5 Y	R 4/8	5	<u>C</u>	<u>M</u>	loam	cobbles present				
	_											
	-			. ——		. ———						
								-				
	_											
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
				4 1)				5				
Hydric Soil Histos	Indicators: (Applicable of (A1)	e to all LRRS, uni	Sandy Redo					Problematic Hydric Soils: 3 k (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	` '				k (A10) (LRR B)				
	Histic (A3)		Loamy Muc	. ,				Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley	-	, ,			nt Material (TF2)				
Stratifi	ed Layers (A5) (LRR C	;)	Depleted M	atrix (F3))		Other (Ex	plain in Remarks)				
1 cm N	/luck (A9) (LRR D)		Redox Dark	Surface	(F6)							
	ed Below Dark Surface	e (A11)	Depleted Da		` ,		3 Indicators of	hydrophytic vegetation and				
	Dark Surface (A12)	\succeq	Redox Depi		(F8)			drology must be present.				
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	s (F9)			unless distributed or problematic					
	E Layer (if present):							<u> </u>				
Type:di												
	nches):4						Hydric Soil Pr	esent? Yes No				
	duripan composed of	f comented vol	conic mudfle	NT7			Hydric 30ii Fi	esent: les 💗 No				
Remarks.	iumpan composed of	i cememea von	came muum	JW								
HYDROL	OGY											
Wetland H	ydrology Indicators:											
Primary Inc	dicators (minimum of or	ne required; chec	k all that appl	y)				ry Indicators (2 or more required)				
Surfac	e Water (A1)		Salt Crust	(B11)			Wat	er Marks (B1) (Riverine)				
High V	Vater Table (A2)		Biotic Crus	st (B12)			Sed	iment Deposits (B2) (Riverine)				
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)		Drift	Deposits (B3) (Riverine)				
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide 0	Odor (C1)			nage Patterns (B10)				
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-	Season Water Table (C2)				
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduc	ed Iron (C	4)	Cray	fish Burrows (C8)				
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satu	ration Visible on Aerial Imagery (C9)				
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)		$oxed{ imes}$ Shal	low Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC	-Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):								
Water Tab	e Present? Ye	es No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		Wot	and Hydrology P	resent? Yes No				
	apillary fringe) ecorded Data (stream	gauge, monitorin	g well, aerial i	ohotos, p	revious ins			resent: res & NO				
2000201.	200.000	gaage,e.mem.	9, aoa.,	эотоо, р		,,,	avallable:					
Remarks:												

Project/Site: The Valley's Edge			City/Cour	nty:Butte	Sam	Sampling Date: 11/11/14			
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W61		
Investigator(s):D. Machek, E. Gregg			Section,	Гownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ief (concave,	convex, none):conc	ave	Slop	oe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	Datun	n:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	Vernal pool	ĺ	
Are climatic / hydrologic conditions on the	site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remar	ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If ne	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point le	ocations, transe	cts, imp	ortant fea	itures, etc	c.
Hydrophytic Vegetation Present?	Yes No	0							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No O		
Remarks:									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)				? Status	Number of Domina	ant Specie	S	(4)	
1. 2.				_	-	•	C: 5	(A)	
3.					Total Number of D Species Across Al		5	(B)	
4					Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100.	.0 % (A/B))
1.					Prevalence Index	workshe	et:		
2.					Total % Cover	r of:	Multiply	by:	
3.					OBL species	5	x 1 =	5	
4				_	FACW species	20	x 2 =	40	
5				_	FAC species	35	x 3 =	105	
Herb Stratum	Total Cover:	%			FACU species UPL species		x 4 =	0	
1.Hordeum marinum gussoneanum	ļ	30	Yes	FAC	,	60	x 5 =	0	٥١
2.Psilocarphus brevissimus		15	Yes	FACW	Column Totals:	60	(A)	150 (E	(د
3. Festuca perennis		5	Yes	FAC	Prevalence I	ndex = B/	A =	2.50	
4. Deschampsia danthonioides		5	Yes	FACW	Hydrophytic Vege	etation Ind	dicators:		
5.Pogogyne ziziphoroides		5	Yes	OBL	X Dominance Te				
6.					× Prevalence In				
7					Morphological	Adaptatio	ns' (Provide s n a separate :	supporting	
8					- Problematic H				
Woody Vine Stratum	Total Cover:	60 %							
1				_	¹ Indicators of hydr be present.	ric soil and	d wetland hyd	lrology must	t
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum40) % Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes •	No 🔿		
Remarks:					-1				\neg

SOIL Sampling Point: $\underline{W61}$

Profile Des	cription: (Describe t	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3	94 2.5 Y	ZR 4/8	6	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
								-
				_				
Type: C=0	Concentration, D=Depl	etion, RM=Red	uced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indiantoro, (Applianto	a to all I DDa u	alaaa athamuia	noted \			Indicators for	Problematic Hydric Soils: ³
Histoso	Indicators: (Applicable (A1)	e to all LKKS, u	Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)	L [Stripped M	, ,				ck (A10) (LRR B)
	listic (A3)	Ī	Loamy Mud	. ,			Reduced	Vertic (F18)
1 <u> </u>	en Sulfide (A4)		Loamy Gle				<u></u>	ent Material (TF2)
	ed Layers (A5) (LRR C) [Depleted M	,	,		Other (Ex	xplain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	. (011)	Redox Dari		. ,			
	ed Below Dark Surface Park Surface (A12)	(A11) [Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)	L [Vernal Poo		(1 0)		wetland h	drology must be present.
	Gleyed Matrix (S4)	L		, ,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:			_					
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
1	icators (minimum of or	ne required; che	eck all that app	ly)			Seconda	ry Indicators (2 or more required)
	e Water (A1)		Salt Crust				Wa	ter Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)			Sed	iment Deposits (B2) (Riverine)
l 🖳 🤚	ion (A3)		Aquatic In		tes (B13)		Drift	Deposits (B3) (Riverine)
X Water I	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide 0	Odor (C1)			nage Patterns (B10)
Sedime	ent Deposits (B2) (Non	riverine)	Oxidized	Rhizosph	eres along	Living Roo	ots (C3) Dry-	Season Water Table (C2)
	eposits (B3) (Nonriver	ine)	Presence	of Reduc	ced Iron (C	4)	Cra	fish Burrows (C8)
	e Soil Cracks (B6)		Recent Iro	on Reduc	tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)
I 🖃	tion Visible on Aerial Ir	nagery (B7)	Thin Muck		` '			llow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	olain in R	emarks)		FAC	c-Neutral Test (D5)
Field Obse		0						
		es No (· -				
Water Table		es O No (
Saturation F	Present? Ye apillary fringe)	es O No 🤄	Depth (in	iches):		Wetl	and Hydrology F	Present? Yes No
	ecorded Data (stream	gauge, monitor	ng well, aerial	photos, p	revious ins			
Remarks:V	ernal pools are loca	ted on a slope	that receives	its wat	er from sh	neet flow.		
	•	1						

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State: CA	Sam	Sampling Point:W62		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	lief (concave,	convex, none):conca	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datui	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	ol	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	d? Are	"Normal Circumstanc	es" prese	nt? Yes	No 🔘	
			oblematic'		eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, im	oortant fea	atures, etc.	
Hydrophytic Vegetation Present?	Yes No				<u> </u>			·	
Hydric Soil Present?	Yes No	_	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Number of Domina				
1.	_				That Are OBL, FAC			(A)	
2.					- - Total Number of D	ominant			
3.					Species Across All		3	(B)	
4					Percent of Domina	nt Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAC			.7 % (A/B)	
1.					Prevalence Index	workshe	et:		
2.					Total % Cover		Multiply	y by:	
3.			-		OBL species	10	x 1 =	10	
4.					FACW species	5	x 2 =	10	
5.					FAC species	50	x 3 =	150	
Liant Chrah.ma	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum 1 Factured parameter		30	Yes	EAC	UPL species		x 5 =	0	
Festuca perennis Hordeum marinum gussoneanum		20	Yes	FAC FAC	Column Totals:	75	(A)	210 (B)	
3. Bromus hordeaceous		10	Yes	FACU	Prevalence I	ndex = B/	'A =	2.80	
4. Deschampsia danthonioides		5	No	FACW	Hydrophytic Vege	etation In	dicators:		
5. Pogogyne ziziphoroides		5	No	OBL	X Dominance Te	est is >509	%		
6.Lasthenia fremontii		5	No	OBL	× Prevalence Inc				
7.					Morphological	Adaptatio	ons ¹ (Provide on a separate	supporting	
8.					- Problematic H				
Woody Vino Stratum	Total Cover:	75 %			1 Toblematic 11	yaropriya	vegetation	(Explain)	
Woody Vine Stratum 1.					¹ Indicators of hydr	ic soil and	d wetland hyd	drology must	
2.					be present.		,	07	
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 25	5 % % Cover of	of Riotic (ruet	0/-	Vegetation Present?	Yes •	No C	`	
Remarks:		טווטום וכ		<u>%</u>	i ieseiit!	162 (140	,	
INGILIAINS.									

Profile Des	cription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirm	n the absence o	f indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	_Loc ² _	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3	95 2.5 Y	R 4/8	5	<u>C</u>	<u>PL</u>	Gravelly clay loan	<u> </u>
				_	-			
				_				
¹ Type: C=C	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs un	less otherwise	noted)			Indicators for	r Problematic Hydric Soils: 3
Histoso			Sandy Redo					ick (A9) (LRR C)
Histic E	pipedon (A2)		Stripped M	atrix (S6)				ick (A10) (LRR B)
	Histic (A3)		Loamy Mud				=	d Vertic (F18)
	en Sulfide (A4)	.,	Loamy Gleg Depleted M					ent Material (TF2)
	ed Layers (A5) (LRR C luck (A9) (LRR D)	·)	Redox Darl	,	,		U Other (E	xplain in Remarks)
	ed Below Dark Surface	e (A11)	Depleted D		. ,			
I Ш .	ark Surface (A12)	` ´	Redox Dep	ressions	(F8)			f hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				lydrology must be present.
	Gleyed Matrix (S4)						uniess dis	stributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Remarks:								
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
Primary Ind	icators (minimum of or	ne required; che	ck all that app	ly)			Seconda	ary Indicators (2 or more required)
Surface	e Water (A1)	[Salt Crust	(B11)			Wa	ater Marks (B1) (Riverine)
High W	ater Table (A2)]	Biotic Cru	st (B12)			Sec	diment Deposits (B2) (Riverine)
Saturat	ion (A3)	[Aquatic In	vertebrat	tes (B13)		Drif	t Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri		Hydrogen					inage Patterns (B10)
	ent Deposits (B2) (Non	, ,	=		eres along	•	` / 🖳 -	-Season Water Table (C2)
🖳	eposits (B3) (Nonriver	ine)			ced Iron (C			ryfish Burrows (C8)
	e Soil Cracks (B6)	(2-)	=		tion in Plov	ved Soils (uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial Ir	magery (B7) [Thin Muck		` '			allow Aquitard (D3)
Field Obse	Stained Leaves (B9)	L	Other (Exp	Diain in R	emarks)			C-Neutral Test (D5)
		es No 💽	Depth (in	ches).				
Water Table		es No (•		· -				
Saturation F								
	apillary fringe)	es O No 🗨	Deptii (iii			Wetl	and Hydrology l	Present? Yes No
Describe Re	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:V	ernal pools are loca	ted on a slope	that receives	s its wat	er from sh	eet flow.		
l								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					Sam	Sampling Point:W63			
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	714091		Long:-121.77704	6	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	ı in Remaı	·ks.)		
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes	No (\circ
			oblematic?		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, im	oortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No				·		<u>'</u>		
Hydric Soil Present?			Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			thin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION					·				
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.	_				Number of Domina That Are OBL, FA			((A)
2.				_	- - Total Number of D	ominant			
3.					Species Across Al		4	((B)
4					Percent of Domina	nt Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			.0 %	A/B)
1.					Prevalence Index	workshe	et·		
2.					Total % Cove		Multiply	v bv:	
3.					OBL species	5	x 1 =	5	
4.					FACW species	10	x 2 =	20	
5.					FAC species	45	x 3 =	135	
Liant Chrateins	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum 1 Footbook provides		20	Yes	EAC	UPL species		x 5 =	0	
Festuca perennis Hordeum marinum gussoneanum		30	Yes	FAC FAC	Column Totals:	70	(A)	200	(B)
3. Deschampsia danthonioides	<u> </u>	10	Yes	FACW	Prevalence I	ndex = B/	/A =	2.86	
4. Bromus hordeaceus		10	Yes	FACU	Hydrophytic Veg	etation In	dicators:		
5.Lasthenia fremontii		5	No	OBL	X Dominance To	est is >50°	%		
6.					× Prevalence In				
7.					Morphologica	Adaptatio	ons ¹ (Provide on a separate	supporting	ıg
8.					- Problematic H				١
Woody Vino Stratum	Total Cover:	70 %			Troblematic r	тустортуш	vegetation	(Explair)	'
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil and	d wetland hyd	drology n	nust
2				_	be present.		,	0,	
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 30	0 % % Cover	of Riotic (ruet	%	Vegetation Present?	Yes •	No C	,	
Remarks:		טווטווט (70	i resent:	162 (140		
INGILIAINS.									

SOIL Sampling Point: $\underline{W63}$

Profile Des	scription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature			.	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3	97 2.5 Y	R 4/8	3	<u>C</u>	<u>PL</u>	Gravelly clay loam	
	_							
				_				
				-		- ——		
				_				
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	iced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicators (Applicable	- 4U.I.D.D	laaa athamula	\			Indicators for I	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable of (A1)	e to all LKKS, un	Sandy Redo					(A9) (LRR C)
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped M	, ,				(A10) (LRR B)
	Histic (A3)	F	Loamy Mud	. ,				Vertic (F18)
Hydrog	gen Sulfide (A4)	Ī	Loamy Gle	yed Matri	x (F2)		Red Parer	nt Material (TF2)
Stratific	ed Layers (A5) (LRR C) [Depleted M	latrix (F3))		Other (Exp	olain in Remarks)
	Muck (A9) (LRR D)		Redox Darl		. ,			
	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	Dark Surface (A12)	Ĺ	Redox Dep		(F8)			drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Poo	IS (F9)				ributed or problematic
	e Layer (if present):							·
Type:	Layer (ii present).							
Depth (i	nches).						Hydric Soil Pre	esent? Yes No
Remarks:							Tiyane con i i	Schill Tes (S) NO (S)
rtomants.								
HYDROL	OGY							
Wetland H	ydrology Indicators:							
	dicators (minimum of or	ne required; che	ck all that app	ly)				y Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrivering	ne)	Hydrogen	Sulfide 0	Odor (C1)			age Patterns (B10)
=	ent Deposits (B2) (Non		=		eres along	-		Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)	_		ced Iron (C	,		fish Burrows (C8)
==	e Soil Cracks (B6)		_		tion in Plov	ved Soils (_	ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,			ow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		☐ FAC-	Neutral Test (D5)
Field Obse								
		es No 💽						
Water Tabl	e Present? Ye	es No 💽	Depth (in	iches):				
Saturation (includes of	Present? Ye apillary fringe)	es O No 🗨	Depth (in	iches):		Wetl	land Hydrology P	resent? Yes No
	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, p	revious ins			
	,	- - ·	2	. '1		. ,,		
Remarks:V	ernal pools are locat	ted on a slone	that receives	its wat	er from sh	neet flow		
	r oolo are room	a stope	10001701	,, ,,				

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W64			
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E				
Landform (hillslope, terrace, etc.): terrac	e		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%):3		
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	714091		Long:-121.77704	6	 Datu	m:WGS	84	
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	 ol		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)			
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes	No (\circ	
			oblematic		eeded, explain any a	nswers in	Remarks.)			
SUMMARY OF FINDINGS - Att					ocations, transe	cts, im	oortant fe	atures,	etc.	
Hydrophytic Vegetation Present?	Yes No				·		<u>'</u>			
Hydric Soil Present?			Is	the Sample	d Area					
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘			
Remarks:			'							
VEGETATION										
VEGETATION										
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test					
1.	_				Number of Domina That Are OBL, FA			((A)	
2.					- - Total Number of D	ominant				
3.					Species Across Al		3	((B)	
4					Percent of Domina	int Specie	s			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0.0 %	A/B)	
1.					Prevalence Index	workshe	et·			
2.				_	Total % Cove		Multipl	v bv:		
3.					OBL species	10	x 1 =	10		
4.					FACW species	15	x 2 =	30		
5.					FAC species	45	x 3 =	135		
Liant Chartering	Total Cover:	%			FACU species	10	x 4 =	40		
Herb Stratum 1 Footbook provides		20	Yes	FAC	UPL species		x 5 =	0		
1.Festuca perennis 2.Hordeum marinum gussoneanum		30 15	Yes	FAC FAC	Column Totals:	80	(A)	215	(B)	
3. Deschampsia danthonioides	<u> </u>	15	Yes	FACW	Prevalence I	ndex = B	/A =	2.69		
4.Bromus hordeaceus		10	$\frac{103}{\text{No}}$	FACU	Hydrophytic Veg	etation In	dicators:			
5.Lasthenia fremontii		10	No	OBL	X Dominance Te	est is >50°	%			
6.					× Prevalence In					
7.					Morphological	Adaptatio	ons ¹ (Provide on a separate	supporting	ıg	
8.					- Problematic H				١	
Woody Vino Stratum	Total Cover:	80 %			Troblematic	iyaropi iya	Vegetation	(Explair)		
Woody Vine Stratum 1.					¹ Indicators of hydi	ic soil an	d wetland hy	drology n	nust	
2					be present.		ĺ	07		
2	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum 20	0 %		Prijet	%	Vegetation Present?	Yes •	No C	,		
Remarks:		טווטווט (70	i resent:	162 (140	,		
INGINAL.										
									,	

Profile Des	scription: (Describe t	o the depth	needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3	97 2.:	5 YR 4/8	3	C	<u>PL</u>	Gravelly clay loam	
¹ Type: C=0	Concentration, D=Depl	etion, RM=R	educed Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs	. unless otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3
Histose			Sandy Redo					(A9) (LRR C)
Histic I	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mucl	k (A10) (LRR B)
	Histic (A3)		Loamy Muc					Vertic (F18)
	gen Sulfide (A4)		Loamy Gley					nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	•		Other (Exp	olain in Remarks)
	Muck (A9) (LRR D)	(044)	Redox Dark		. ,			
· — ·	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		(ГО)		wetland hy	drology must be present.
	Gleyed Matrix (S4)		Vernai i oo	3 (1 3)			unless dist	ributed or problematic
	Layer (if present):							
Type:	, , , ,							
Depth (i	nches):						Hydric Soil Pre	esent? Yes No
Remarks:	·							
	204							
HYDROL								
	ydrology Indicators:						Casandan	ladiaatara (O.a. maana maninad)
	dicators (minimum of or	ne required;						y Indicators (2 or more required)
	e Water (A1)		Salt Crust	` '				er Marks (B1) (Riverine)
<u> </u>	/ater Table (A2)		Biotic Crus					ment Deposits (B2) (Riverine)
l 🖳	tion (A3)		Aquatic In					Deposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	,	Hydrogen		, ,		= -	nage Patterns (B10)
=	ent Deposits (B2) (Non				eres along	_		Season Water Table (C2)
1 ==	eposits (B3) (Nonriveri	ine)			ced Iron (C	,		fish Burrows (C8)
	e Soil Cracks (B6)		<u></u>		tion in Plov	ved Soils (` ' 🖳	ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,		=	ow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	plain in R	emarks)		☐ FAC-	Neutral Test (D5)
Field Obse								
		_	Depth (in					
Water Tabl	e Present? Ye	es No	Depth (in	ches):				
	apillary fringe)		Depth (in				land Hydrology Pı	resent? Yes No
Describe R	ecorded Data (stream	gauge, moni	toring well, aerial	photos, p	revious ins	spections),	, if available:	
Remarks:V	ernal pools are located	ted on a slo	pe that receives	its wat	er from sh	neet flow.	•	

Project/Site: The Valley's Edge		City/Cour	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W65		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Rema	rks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	l? Are	"Normal Circumstand	es" prese	nt? Yes	No	\bigcirc
			oblematic'		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, im	portant fea	atures	, etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No O		
Remarks:									
VEGETATION									
		bsolute	Dominar	nt Indicator	Dominance Test	workshee	et:		
<u>Tree Stratum</u> (Use scientific names.)	<u>0</u>	% Cover	Species	? Status	Number of Domina	ant Specie	es		
1				_	That Are OBL, FA	CW, or FA	AC: 4		(A)
2			-		Total Number of D				
3					Species Across Al	l Strata:	5		(B)
4	Total Cover:	0/		<u>-</u> -	Percent of Domina			0	(* (5)
Sapling/Shrub Stratum	Total Cover.	%			That Are OBL, FA	CVV, or FA	(C: 80)	.0 %	(A/B)
1					Prevalence Index	workshe	et:		
2				_	Total % Cover		Multiply		_
3				_	OBL species	10	x 1 =	10	
4					FACW species	10	x 2 = x 3 =	20 135	
5	Total Cover:	%		_	FAC species FACU species	45 5	x 4 =	20	
Herb Stratum	Total Cover.	%0			UPL species	10	x 5 =	50	
1.Festuca perennis		25	Yes	FAC	Column Totals:	80	(A)	235	(B)
2. Hordeum marinum gussoneanum	i	20	Yes	FAC			, ,		
3. <i>Poa sp</i> .		10	Yes	Not Listed	Prevalence I			2.94	
4. Deschampsia danthonioides		10	Yes	FACW	Hydrophytic Vege				
5.Lasthenia fremontii 6.Bromus hordeaceous		10	Yes	OBL	Dominance Te				
6.Bromus noraeaceous 7.		5	No	FACU	Morphological			supporti	na
8.				.	data in Rer	marks or c	on a separate	sheet)	9
·	Total Cover:	80 %		_	Problematic H	lydrophyti	c Vegetation ¹	(Explain	1)
Woody Vine Stratum		80 %							
1					¹ Indicators of hydr be present.	ric soil an	d wetland hy	drology i	must
2					_				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum20	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W65}$

Profile Des	scription: (Describe t	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)				
Depth	Matrix			x Feature			_					
(inches)	Color (moist)		color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 2.5/3	96 2.5	YR 4/8	4	<u>C</u>	<u>PL</u>	Gravelly clay loam					
				_								
1							. 2					
'Type: C=0 	Concentration, D=Deple	etion, RM=Red	duced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all I RRs ı	ınless otherwisi	noted)			Indicators for F	Problematic Hydric Soils: 3				
Histose		o to all Litto, t	Sandy Redo					(A9) (LRR C)				
l <u>—</u>	Epipedon (A2)		Stripped M	, ,				(A10) (LRR B)				
Black I	Histic (A3)		Loamy Mud	cky Miner	al (F1)			/ertic (F18)				
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matri	x (F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M				Other (Exp	olain in Remarks)				
	Muck (A9) (LRR D)	(* ()	Redox Dar		. ,							
. — .	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and				
	Dark Surface (A12)		Redox Dep		(F8)		wetland hydrology must be present.					
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	is (F9)			unless distributed or problematic					
	Layer (if present):											
Type:	, с. (р,											
Depth (i	nches):		_				Hydric Soil Pre	esent? Yes No				
Remarks:												
HYDROL												
	ydrology Indicators:						Casandar	u Indicatora (2 or more required)				
	dicators (minimum of or	ne required; ch		-				y Indicators (2 or more required) er Marks (B1) (Riverine)				
l ==	e Water (A1)		Salt Crust	` '				, , ,				
<u> </u>	Vater Table (A2)		Biotic Cru					ment Deposits (B2) (Riverine)				
l 🖳	tion (A3)		Aquatic In					Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri		Hydrogen		, ,		= -	age Patterns (B10)				
	ent Deposits (B2) (Non				eres along	-		Season Water Table (C2)				
	eposits (B3) (Nonriveri	ine)			ced Iron (C	,		ish Burrows (C8)				
l <u>—</u>	e Soil Cracks (B6)	(57)			tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)				
=	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,			ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Ex	plain in R	emarks)		FAC-	Neutral Test (D5)				
Field Obse		n O No /	Donath (in									
		es No (
Water Tabl	_	es No (
Saturation (includes care	Present? Ye apillary fringe)	es No (Depth (in	iches):		Wetl	land Hydrology Pı	resent? Yes No				
	ecorded Data (stream	gauge, monito	ring well, aerial	photos, p	revious ins	spections),	if available:					
Remarks:V	ernal pools are locate	ted on a slop	e that receives	s its wat	er from sh	neet flow.						
	-	1										

Project/Site: The Valley's Edge			City/Co	ounty:Butte	Sampling Date: 11/11/14			
Applicant/Owner: B. Brouhard					State:	CA	Sampling P	oint:W66
Investigator(s):D. Machek, E. Gregg			Sectio	n, Township, Ra	nge:S 32, T 2	22N, R 2E		
Landform (hillslope, terrace, etc.): terrac	e		Local	relief (concave,	convex, none)	:concave		Slope (%):4
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.	71409	1	Long:-121.7	777046		Datum:WGS 84
Soil Map Unit Name: Doemill-Jokerst		opes			_	IWI classifica	tion:Verna	l pool
Are climatic / hydrologic conditions on th		•	ear? Ye	es (•) No (explain in Re		1
		ignificantly			"Normal Circur	•	,	es No
		aturally pr			eeded, explain			
SUMMARY OF FINDINGS - Att	o, <u> </u>	, ,		`				
Hydrophytic Vegetation Present?	Yes 🕟 No	o (i)						
Hydric Soil Present?	Yes No	0		Is the Sample	d Area			
Wetland Hydrology Present?	Yes No	0		within a Wetla	nd?	Yes	No 🔘	
VEGETATION								
VEGETATION		Absolute	Domi	nant Indicator	Dominance	Tost works	hoot:	
Tree Stratum (Use scientific names.) 1				ies? Status	Number of E	Dominant Sp	ecies	2 (A)
2. 3.					Total Number			2 (B)
4Sapling/Shrub Stratum	Total Cover	%			Percent of D That Are OE			100.0 % (A/B)
1.					Prevalence	Index work	sheet:	
2.					Total %	Cover of:	N	fultiply by:
3.					OBL species	s 5	x 1 =	5
4.					FACW spec	cies 5	x 2 =	10
5.					FAC species	s 6	5 x 3 =	195
Llorb Ctroture	Total Cover	%			FACU speci	-		.0
Herb Stratum 1. Festuca perennis		35	Yes	FAC	UPL species		x 5 =	9
2.Hordeum marinum gussoneanun	<u> </u>	$\frac{33}{30}$	Yes	FAC	Column Tota	als: 8	5 (A)	250 (B)
3. Bromus hordeaceous	<u> </u>	$\frac{-30}{10}$	No	FACU	Preval	lence Index	= B/A =	2.94
4. Deschampsia danthonioides		5	No	FACW	Hydrophyti	c Vegetatio	n Indicator	s:
5. Lasthenia fremontii		5	No	OBL	X Domina	nce Test is :	>50%	
6.						nce Index is		
7.								ovide supporting parate sheet)
8.								ation¹ (Explain)
Woody Vine Stratum	Total Cover	85 %			Troblem	nado riyarop	nytic vegeti	ation (Explain)
1					¹ Indicators of be present.		and wetlar	nd hydrology must
Z	Total Cover	. %			Hydrophyti	c		
% Bare Ground in Herb Stratum1		of Biotic (Crust _	%_	Vegetation Present?		•	No O
Remarks:					-			

Profile Des	scription: (Describe t	o the depth	needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)				
Depth	Matrix			x Feature			- .					
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 2.5/3	<u>98</u> <u>2</u> .	5 YR 4/8	2	<u>C</u>	<u>PL</u>	Gravelly clay loam					
¹ Type: C=0	Concentration, D=Depl	etion, RM=R	Reduced Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil Histose	Indicators: (Applicable	e to all LRRs	s, unless otherwise Sandy Redo					Problematic Hydric Soils: 3 < (A9) (LRR C)				
l <u>—</u>	Epipedon (A2)		Stripped Ma	` '				(A3) (LRR B)				
	Histic (A3)		Loamy Muc	, ,				Vertic (F18)				
Hydrog	gen Sulfide (A4)		Loamy Gley	ed Matri	x (F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M	,	•		Other (Exp	olain in Remarks)				
	Muck (A9) (LRR D)		Redox Dark		. ,							
· — ·	ed Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators of h	nydrophytic vegetation and				
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep		(F8)		wetland hydrology must be present.					
	Gleyed Matrix (S4)		veinai Pooi	is (F9)			unless distributed or problematic					
	Layer (if present):											
Type:	, , , ,											
Depth (i	nches):						Hydric Soil Pre	esent? Yes No				
Remarks:												
HYDROL	OGY											
Wetland H	ydrology Indicators:											
	dicators (minimum of or	ne required:	check all that appl	v)			Secondar	y Indicators (2 or more required)				
	e Water (A1)	,	Salt Crust				Wate	er Marks (B1) (Riverine)				
	Vater Table (A2)		Biotic Crus	` '			Sedi	ment Deposits (B2) (Riverine)				
<u> </u>	tion (A3)		Aquatic In		es (B13)			Deposits (B3) (Riverine)				
🖳	Marks (B1) (Nonriverii	ne)	Hydrogen				Drain	nage Patterns (B10)				
==	ent Deposits (B2) (Non				eres along	Living Ro	ots (C3) Dry-S	Season Water Table (C2)				
=	eposits (B3) (Nonriver i				ced Iron (C	-		fish Burrows (C8)				
	e Soil Cracks (B6)	,	Recent Iro	n Reduc	tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	ow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC-	Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? Ye	es O No	Depth (in	ches):								
Water Tabl	e Present? Ye	es O No	Depth (in	ches):								
Saturation (includes can	Present? Ye apillary fringe)	es O No	Depth (in	ches):		Wetl	land Hydrology Pı	resent? Yes No				
	ecorded Data (stream	gauge, mon	itoring well, aerial _l	photos, p	revious ins	spections),	if available:					
Remarks:V	ernal pools are locat	ted on a slo	ope that receives	its wat	er from sl	neet flow.						

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W67		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.	714091		Long:-121.77704	6	Datu	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	ssification	cation:Vernal pool		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hy	rdrology sig	gnificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	rdrology na	turally pr	oblematic	? (If ne	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ing point l	ocations, transe	cts, im	portant fea	atures, etc	
Hydrophytic Vegetation Present?	Yes No	0							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
		Absolute		nt Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	<u>-</u>	% Cover	Species	? Status	Number of Domina			(4)	
1			-		That Are OBL, FA	CW, or FA	C: 2	(A)	
2. 3.					Total Number of D Species Across Al		2	(B)	
4.					Percent of Domina	nt Snecie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 % (A/B)	
1.					Prevalence Index	workshe	et:		
2.					Total % Cove		Multipl	y by:	
3.					OBL species	10	x 1 =	10	
4.					FACW species	10	x 2 =	20	
5					FAC species	50	x 3 =	150	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		20	3.7		UPL species		x 5 =	0	
1 Hordeum marinum gussoneanum	<u>t</u>	30	Yes	FAC	Column Totals:	80	(A)	220 (B)	
2. Festuca perennis 3. Bromus hordeaceous		20 10	Yes No	FAC FACU	Prevalence I	ndex = B/	/A =	2.75	
4. Deschampsia danthonioides		10	No	FACU	Hydrophytic Veg	etation In	dicators:		
5.Lasthenia fremontii		10	No	OBL	➤ Dominance Te				
6.		10			× Prevalence In	dex is ≤3.	01		
7.					Morphological	Adaptatio	ons ¹ (Provide	supporting	
8.							n a separate		
	Total Cover:	80 %			Problematic H	iyaropnyti	c vegetation	(Explain)	
Woody Vine Stratum					¹ Indicators of hydi	ric soil an	d wetland hy	drology must	
1					be present.	10 3011 411	a welland my	arology mast	
	Total Cover:	%			Hydrophytic Vegetation				
	0 % Cover 0	of Biotic (Crust	<u>%</u>	Present?	Yes •	No C	>	
Remarks:									

SOIL Sampling Point: $\underline{W67}$

Profile Des	scription: (Describe to	o the depti	n needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)				
Depth	Matrix			c Feature								
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 2.5/3	95 2	.5 YR 4/8	5	<u>C</u>	PL	Gravelly clay loam					
						- ———						
¹ Type: C=0	Concentration, D=Deple	etion, RM=F	Reduced Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	to all I RR	s unless otherwise	noted)			Indicators for F	Problematic Hydric Soils: 3				
Histose		to all Little	Sandy Redo					(A9) (LRR C)				
l <u>—</u>	Epipedon (A2)		Stripped Ma	' '				k (A10) (LRR B)				
Black I	Histic (A3)		Loamy Muc	ky Miner	ral (F1)			Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley	ed Matr	ix (F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Exp	olain in Remarks)				
	Muck (A9) (LRR D)		Redox Dark		. ,							
· — ·	ed Below Dark Surface	(A11)	Depleted Da		` ,		3 Indicators of h	nydrophytic vegetation and				
	Dark Surface (A12)		X Redox Depr Vernal Pool		(F8)		wetland hydrology must be present.					
	Mucky Mineral (S1) Gleyed Matrix (S4)		vernai Pooi	S (F9)			unless distributed or problematic					
	Layer (if present):											
Type:	, от (т. р. сест).											
Depth (i	nches):						Hydric Soil Pre	esent? Yes No				
Remarks:							.,					
HYDROL												
	ydrology Indicators:						0	1 1 4 40				
	dicators (minimum of or	ne required;						y Indicators (2 or more required)				
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)				
<u> </u>	Vater Table (A2)		Biotic Crus					ment Deposits (B2) (Riverine)				
🖳	tion (A3)		Aquatic In					Deposits (B3) (Riverine)				
==	Marks (B1) (Nonrivering		Hydrogen		` '		= -	nage Patterns (B10)				
=	ent Deposits (B2) (Non				eres along	-		Season Water Table (C2)				
	eposits (B3) (Nonriveri	ne)			ced Iron (C	,		fish Burrows (C8)				
	e Soil Cracks (B6)		<u></u>		tion in Plov	ved Soils (` ' 🖳	ration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	nagery (B7)			` '		=	ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	lain in R	temarks)		☐ FAC-	Neutral Test (D5)				
Field Obse												
		_	o Depth (in									
Water Tabl	e Present? Ye	s N	o Depth (inc	ches):								
	apillary fringe)		Depth (inc				land Hydrology Pı	resent? Yes No				
Describe R	ecorded Data (stream	gauge, mor	nitoring well, aerial p	ohotos, p	previous ins	spections),	, if available:					
Remarks:V	ernal pools are locat	ted on a sl	ope that receives	its wat	er from sh	neet flow.						

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W68		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	ication:Vernal pool		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	ı in Remai	rks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	d? Are	"Normal Circumstand	es" prese	nt? Yes	No	\bigcirc
			oblematic'		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, im	portant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No				· ·		<u> </u>		
Hydric Soil Present?			Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No O		
Remarks:									
\									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Number of Domina That Are OBL, FA				(A)
2.			-	_	- - Total Number of D	ominant			,
3.					Species Across Al		3		(B)
4.					- - Percent of Domina	nt Specie	c		
Canling of Charles Charles	Total Cover:	%			That Are OBL, FA			.7 %	(A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	worksho	ot:		
2.					Total % Cover		Multiply	v bv:	
3.					OBL species	10	x 1 =	10	
4.				_	FACW species	5	x 2 =	10	
5					FAC species	45	x 3 =	135	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		25	37		UPL species		x 5 =	0	
1. Hordeum marinum gussoneanum	<u> </u>	25	Yes	FAC	Column Totals:	70	(A)	195	(B)
2. Festuca perennis 3. Bromus hordeaceus		20 10	Yes Yes	FAC FACU	Prevalence I	ndex = B	/A =	2.79	
4. Deschampsia danthonioides		5	$\frac{1 \text{ cs}}{\text{No}}$	FACW	Hydrophytic Veg	etation In	dicators:		
5.Lasthenia fremontii		5	No	OBL	X Dominance Te	est is >509	%		
6. Eryngium castrense		5	No	OBL	× Prevalence In	dex is ≤3.	01		
7.					Morphological	Adaptatio	ons ¹ (Provide	supporti	ng
8.					- Problematic H		on a separate	,	.)
Mandy Vina Stratum	Total Cover:	70 %			- Troblematic H	iyaropriyin	c vegetation	(Ехріаіі і	,
Woody Vine Stratum 1.					¹ Indicators of hydr	ric soil an	d wetland hvo	droloav r	must
2.					be present.				
	Total Cover:	%			Hydrophytic				
9/ Para Cround in Harb Stratum 30			ruot	0/	Vegetation	Yes •	No C	i	
% Bare Ground in Herb Stratum 30 Remarks:	% Cover 0	טווטווט (<u>%</u>	Present?	res 🖲	NO (
Remarks.									

SOIL Sampling Point: $\underline{W68}$

Profile Des	scription: (Describe to	o the depth	n needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)			
Depth	Matrix			K Feature			_				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-4	2.5 YR 2.5/3	95 2	.5 YR 4/8		<u>C</u>	<u>PL</u>	Gravelly clay loam				
						. ———					
¹ Type: C=0	Concentration, D=Deple	 etion, RM=F	Reduced Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Histose	Indicators: (Applicable	to all LRR	s, unless otherwise Sandy Redo					Problematic Hydric Soils: ³ < (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)		Stripped Ma	' '				(A10) (LRR B)			
	Histic (A3)		Loamy Muc	. ,				Vertic (F18)			
Hydrog	gen Sulfide (A4)		Loamy Gley	ed Matr	ix (F2)			nt Material (TF2)			
Stratifi	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Exp	olain in Remarks)			
	Muck (A9) (LRR D)		Redox Dark		. ,						
. — .	ed Below Dark Surface	(A11)	Depleted Da		` ,		3 Indicators of h	nydrophytic vegetation and			
	Dark Surface (A12)		Redox Depi		(F8)			drology must be present.			
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pool	S (F9)			unless distributed or problematic				
	Layer (if present):										
Type:	, , ,										
Depth (i	nches):						Hydric Soil Pre	esent? Yes No			
Remarks:											
HYDROL	OGY										
Wetland H	ydrology Indicators:										
	dicators (minimum of on	e reauired:	check all that appl	v)			Secondar	y Indicators (2 or more required)			
	e Water (A1)		Salt Crust				Wate	er Marks (B1) (Riverine)			
l ==	Vater Table (A2)		Biotic Crus	` ′			Sedii	ment Deposits (B2) (Riverine)			
l 🖳 🧻	tion (A3)		Aquatic In		tes (B13)			Deposits (B3) (Riverine)			
l 🖳	Marks (B1) (Nonriverin	ne)	Hydrogen				Drain	age Patterns (B10)			
=	ent Deposits (B2) (Non				eres along	Living Ro	ots (C3) Dry-S	Season Water Table (C2)			
	eposits (B3) (Nonriveri				ced Iron (C	-	· · · =	ish Burrows (C8)			
l <u>—</u>	e Soil Cracks (B6)	ŕ	Recent Iro	n Reduc	tion in Plov	ved Soils (ration Visible on Aerial Imagery (C9)			
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	ow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Exp	lain in R	temarks)		FAC-	Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	s ON	o Depth (inc	ches):							
Water Tabl	e Present? Ye	s ON	o Depth (inc	ches):							
Saturation (includes ca	Present? Ye apillary fringe)	s ON	o Depth (inc	ches):		Wetl	land Hydrology Pı	resent? Yes No			
Describe R	ecorded Data (stream	gauge, mor	nitoring well, aerial	ohotos, p	previous ins	spections),	, if available:				
Remarks:V	ernal pools are locat	ed on a sl	ope that receives	its wat	er from sh	eet flow.					

Project/Site: The Valley's Edge			City/Cour	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W69		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ief (concave,	convex, none):conca	ive	Slop	pe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datui	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hy	rdrology sig	gnificantly	disturbed	l? Are	"Normal Circumstanc	es" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic	? (If ne	eeded, explain any ar	swers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map s	howing	sampli	ng point le	ocations, transe	cts, im _l	portant fea	atures, etc.	
Hydrophytic Vegetation Present?	Yes No	0							
Hydric Soil Present?	Yes No		Is	the Sampled	l Area				
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VECETATION									
VEGETATION		Absolute	Dominar	nt Indicator	Dominance Test v	vorkshee	at-		
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domina				
1				_	That Are OBL, FAC			(A)	
2					Total Number of D	ominant			
3				_	Species Across All	Strata:	3	(B)	
4		0/			Percent of Domina			_	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAC	CW, or FA	.C: 66.	.7 % (A/B)	
1					Prevalence Index	workshe	et:		
2					Total % Cover	of:	Multiply		
3				_	OBL species	10	x 1 =	10	
4					FACW species	5	x 2 =	10	
5				<u> </u>	FAC species	50	x 3 =	150	
Herb Stratum	Total Cover:	%			FACU species UPL species	10	x 4 = x 5 =	$\frac{40}{0}$	
1.Hordeum marinum gussoneanum	ı	25	Yes	FAC	Column Totals:	75		210 (B)	
2.Festuca perennis		25	Yes	FAC	Column rotals.	75	(A)	210 (b)	
3.Bromus hordeaceus		10	Yes	FACU	Prevalence In			2.80	
4. Deschampsia danthonioides		5	No	FACW	Hydrophytic Vege				
5.Lasthenia fremontii		10	No	OBL	X Dominance Te				
6				_	× Prevalence Inc				
7					Morphological data in Rer	Adaptation Narks or c	ons' (Provide on a separate	supporting sheet)	
8				_	- Problematic H				
Woody Vine Stratum	Total Cover:	75 %							
1					¹ Indicators of hydr be present.	ic soil and	d wetland hyd	drology must	
2		0.1			Hydrophytic				
20	Total Cover:				Vegetation	0			
	5 % % Cover o	ot Biotic C	Crust	<u>%</u>	Present?	Yes •	No C)	
Remarks:									

SOIL Sampling Point: $\underline{W69}$

Profile Des	scription: (Describe t	o the depth	needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)				
Depth	Matrix			x Feature								
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 2.5/3	97 2.:	5 YR 4/8	3	C	<u>PL</u>	Gravelly clay loam					
¹ Type: C=0	Concentration, D=Depl	etion, RM=R	educed Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicable	e to all LRRs	. unless otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3				
Histose			Sandy Redo					(A9) (LRR C)				
Histic I	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mucl	k (A10) (LRR B)				
	Histic (A3)		Loamy Muc					Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley					nt Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M	,	•		Other (Exp	olain in Remarks)				
	Muck (A9) (LRR D)	(111)	Redox Dark		. ,							
· — ·	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Pool		(ГО)		wetland hydrology must be present.					
	Gleyed Matrix (S4)		Vernai i oo	3 (1 3)			unless distributed or problematic					
	Layer (if present):											
Type:	, , , ,											
Depth (i	nches):						Hydric Soil Pre	esent? Yes No				
Remarks:	·											
	204											
HYDROL												
	ydrology Indicators:						Casandan	ladiaatara (O.a. maana maninad)				
	dicators (minimum of or	ne required;						y Indicators (2 or more required)				
	e Water (A1)		Salt Crust	` '				er Marks (B1) (Riverine)				
<u> </u>	/ater Table (A2)		Biotic Crus					ment Deposits (B2) (Riverine)				
l 🖳	tion (A3)		Aquatic In					Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	,	Hydrogen		, ,		= -	nage Patterns (B10)				
=	ent Deposits (B2) (Non				eres along	_		Season Water Table (C2)				
1 ==	eposits (B3) (Nonriveri	ine)			ced Iron (C	,		fish Burrows (C8)				
	e Soil Cracks (B6)		<u></u>		tion in Plov	ved Soils (` ' 🖳	ration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,		=	ow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	plain in R	emarks)		☐ FAC-	Neutral Test (D5)				
Field Obse												
		_	Depth (in									
Water Tabl	e Present? Ye	es No	Depth (in	ches):								
	apillary fringe)		Depth (in				land Hydrology Pı	resent? Yes No				
Describe R	ecorded Data (stream	gauge, moni	toring well, aerial	photos, p	revious ins	spections),	, if available:					
Remarks:V	ernal pools are located	ted on a slo	pe that receives	its wat	er from sh	neet flow.	•					

Project/Site: The Valley's Edge			City/Cou	nty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W70		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, F	R 2E			
Landform (hillslope, terrace, etc.): terrace	е		Local re	lief (concave,	convex, none):conca	ave	Slo	pe (%):4	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	Datu	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI clas	ssification	:Vernal poo	ol	
Are climatic / hydrologic conditions on the	site typical for this	time of ye	ear? Yes	No ((If no, explain	in Remai	rks.)		
Are Vegetation Soil or Hyd	drology sig	gnificantly	disturbed	d? Are	"Normal Circumstanc	es" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic	? (If ne	eeded, explain any ar	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ing point le	ocations, transe	cts, im	portant fea	atures, etc.	
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	l Area				
Wetland Hydrology Present?	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test v				
1.	<u>-</u> -	70 COVCI	Орсскоз	· Otatus	Number of Domina That Are OBL, FAC			(A)	
2.			-		-	•	.0	(7.7)	
3.					 Total Number of Description Species Across All 		3	(B)	
4.					Percent of Domina	nt Specie	s		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FAC			.7 % (A/B)	
1.					Prevalence Index	workshe	et:		
2.			-		Total % Cover	of:	Multiply	y by:	
3.					OBL species	10	x 1 =	10	
4.					FACW species	5	x 2 =	10	
5					FAC species	50	x 3 =	150	
Llorb Ctroturo	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum 1.Hordeum marinum gussoneanum		25	Yes	FAC	UPL species		x 5 =	0	
2. Festuca perennis		25	Yes	FAC	Column Totals:	75	(A)	210 (B)	
3. Bromus hordeaceus		10	Yes	FACU	Prevalence In	ndex = B/	/A =	2.80	
4. Deschampsia danthonioides		5	No	FACW	Hydrophytic Vege	etation In	dicators:		
5.Lasthenia fremontii		5	No	OBL	X Dominance Te	est is >509	%		
6. Eryngium castrense		5	No	OBL	× Prevalence Inc				
7					Morphological	Adaptatio	ons¹ (Provide on a separate	supporting	
8.					- Problematic H				
Woody Vine Stratum	Total Cover:	75 %			Troblematio 11	yaropriya	o vegetation	(Explain)	
1.					¹ Indicators of hydr	ic soil and	d wetland hy	drology must	
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum25	% Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:									

Profile Des	cription: (Describe t	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)				
Depth	Matrix			x Feature								
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	2.5 YR 2.5/3	95 <u>2.5 Y</u>	R 4/8	5	<u>C</u>	<u>PL</u>	Gravelly clay loan	<u>n</u>				
				_								
	-											
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	iced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.				
Hudria Cail	Indicators (Applicable	- 4II I DD	laaa athamula	\			lu dinataun fau	Problematic Hydric Soils: 3				
Histoso	Indicators: (Applicable	e to all LKKS, un	Sandy Redo					ck (A9) (LRR C)				
	pipedon (A2)	F	Stripped Ma	` '			<u> </u>	ck (A10) (LRR B)				
	listic (A3)	Ī	Loamy Mud	, ,			Reduced	Vertic (F18)				
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matri	ix (F2)		Red Pare	ent Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Ex	xplain in Remarks)				
	luck (A9) (LRR D)		Redox Darl		. ,							
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators of	hydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Poo		(ГО)		wetland hydrology must be present.					
	Gleyed Matrix (S4)	L	vernar r oo	13 (1 3)			unless distributed or problematic					
	Layer (if present):											
Type:												
Depth (ir	nches):						Hydric Soil Pi	resent? Yes No				
Remarks:												
HYDROLO)GV											
	/drology Indicators:											
1	icators (minimum of or	o roquirod: obo	ak all that ann	lv)			Seconda	ary Indicators (2 or more required)				
	*	ie required, crie	Salt Crust					ter Marks (B1) (Riverine)				
l <u>—</u>	e Water (A1) 'ater Table (A2)		=	,			<u> </u>	liment Deposits (B2) (Riverine)				
l 🖳 🤚	ion (A3)		Biotic Cru Aquatic In		toc (R13)			Deposits (B3) (Riverine)				
l <u> </u>	Marks (B1) (Nonriveri i	20)	Hydrogen				=	inage Patterns (B10)				
	ent Deposits (B2) (Non		= ' '		eres along	Living Roc	= =	Season Water Table (C2)				
	eposits (B3) (Nonriver		=		ced Iron (C	-	(,	yfish Burrows (C8)				
	e Soil Cracks (B6)		=		tion in Plov			uration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial Ir	nagery (B7)	Thin Muck			(llow Aquitard (D3)				
I 🖃	Stained Leaves (B9)		Other (Ex		` '			C-Neutral Test (D5)				
Field Obse	rvations:	·										
Surface Wa	ter Present? Ye	s No 💽	Depth (in	ches):								
Water Table	e Present? Ye	es O No 💽	Depth (in	ches):								
Saturation F	Present? Ye	es No 🗨	Depth (in	ches):		<u> </u>						
	apillary fringe)			nhotoo n	rovious inc		land Hydrology F	Present? Yes (•) No (
Describe Re	ecorded Data (stream	gauge, monitorii	ng well, aerial	priotos, p	nevious ins	spections),	ii available.					
Domarko: 17	annal naola ana la	tad on a alama	that receives	ita	on from -1-	aget flores						
remarks: V	ernal pools are loca	ieu on a stope	mat receives	s its wat	er from sr	icei How.						

Project/Site: The Valley's Edge			City/C	ounty:Butte	Sampling Date: 11/11/14				+	
Applicant/Owner: B. Brouhard						State:CA	Sar	npling Point:	W71	
Investigator(s): D. Machek, E. Gregg			Sectio	on, Township, Ra	ange:S	32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local	relief (concave,	convex	k, none):cond	cave	SI	ope (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.	71409	1	Long	g:-121.7770	46	 Dat	um:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		opes			_ `	NWI classification:Vernal pool				
Are climatic / hydrologic conditions on the	*	•	ear? Yo	es (• No ($\overline{}$	(If no, explai				
		ignificantly				al Circumstan		,) No	
		aturally pr				explain any a			,	
SUMMARY OF FINDINGS - Att	٥, 🗀	, ,		,					eatures,	, etc.
Hydrophytic Vegetation Present?		0 (·	·	<u>-</u>		
Hydric Soil Present?	Yes No	0		Is the Sample	d Area					
Wetland Hydrology Present?	Yes No	0		within a Wetla	nd?	Yes	•	No 🔘		
Remarks:										
VEGETATION										-
Tree Stratum (Use scientific names.) 1.		Absolute % Cover		nant Indicator ies? Status	Num	ninance Test ober of Domin t Are OBL, FA	ant Specie	es	2	(A)
2					Tota	I Number of I	Dominant			(B)
4.				 -	_				5	(-)
Sapling/Shrub Stratum	Total Cover	%				cent of Domin Are OBL, FA			6.7 %	(A/B)
1.					Prev	/alence Inde	x workshe	eet:		-
2.					T	Total % Cove	er of:	Multip	oly by:	_
3.					OBL	. species	5	x 1 =	5	
4					_	W species	5	x 2 =	10	
5					-	species	55	x 3 =	165	
Herb Stratum	Total Cover	%				U species	10	x 4 =	40	
1.Hordeum marinum gussoneanum	,	30	Yes	FAC		species		x 5 =	0	(D)
2. Festuca perennis	<u>′</u>	25	Yes	FAC	_ Colu	ımn Totals:	75	(A)	220	(B)
3.Bromus hordeaceus		10	Yes	FACU		Prevalence	Index = B	/A =	2.93	
4. Deschampsia danthonioides		5	No	FACW	Hyd	rophytic Veg	getation In	dicators:		
5. Lasthenia fremontii		5	No	OBL		Dominance T				
6.						Prevalence I				
7						Morphologica		ons¹ (Provid on a separat		ng
8						Problematic I			•	1)
Woody Vine Stratum	Total Cover	75 %					., ,		(=	.,
12.						cators of hyd present.	Iric soil an	d wetland h	ydrology r	must
2	Total Cover	: %		 -	Hvd	rophytic				
% Bare Ground in Herb Stratum25		of Biotic (Crust _	%_	Veg	etation sent?	Yes •	No (\supset	
Remarks:										

SOIL Sampling Point: $\underline{W71}$

Profile Des	scription: (Describe t	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks			
0-4	2.5 YR 2.5/3	99 2.5	YR 4/8	_ 1	C	<u>PL</u>	Gravelly clay loam				
¹ Type: C=0	Concentration, D=Depl	etion, RM=Re	duced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.			
								3			
	Indicators: (Applicable	e to all LRRs, ı						Problematic Hydric Soils: 3			
Histos	` '		Sandy Redo	, ,				(A9) (LRR C)			
	Epipedon (A2)		Stripped M	, ,				(A10) (LRR B)			
l <u>—</u>	Histic (A3) gen Sulfide (A4)		Loamy Mu					√ertic (F18) nt Material (TF2)			
	ed Layers (A5) (LRR C	1	Depleted N					plain in Remarks)			
	Muck (A9) (LRR D))	Redox Dar	` '			Outer (EX	Stail in Remarks)			
	ed Below Dark Surface	(A11)	Depleted D		. ,						
ı Ш ·	Dark Surface (A12)	()	Redox Dep		` '			nydrophytic vegetation and			
	Mucky Mineral (S1)		Vernal Pod		,		wetland hydrology must be present.				
Sandy	Gleyed Matrix (S4)						unless dist	ributed or problematic			
Restrictive	Layer (if present):										
Type:											
Depth (i	nches):		_				Hydric Soil Pre	esent? Yes No			
Remarks:	<u> </u>										
HYDROL											
Wetland H	ydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; ch	eck all that app	ly)				y Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crus	t (B11)			Wate	er Marks (B1) (Riverine)			
High W	Vater Table (A2)		Biotic Cru	st (B12)			Sedi	ment Deposits (B2) (Riverine)			
Satura	tion (A3)		Aquatic Ir	vertebrat	es (B13)		Drift	Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveria	ne)	Hydrogen	Sulfide 0	Odor (C1)		Drain	nage Patterns (B10)			
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized	Rhizosph	eres along	Living Ro	ots (C3) Dry-S	Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver i	ine)	Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Ire	on Reduc	tion in Plov	ved Soils (C6) Satur	ration Visible on Aerial Imagery (C9)			
Inunda	tion Visible on Aerial In	nagery (B7)	Thin Muck	s Surface	(C7)		Shall	ow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Ex	plain in R	emarks)		FAC-	Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	s No (Depth (ir	nches):							
Water Tabl	e Present? Ye	es No (Depth (ir	nches):							
Saturation		es No (Depth (ir	nches):							
(includes c	apillary fringe)						land Hydrology Pi	resent? Yes No			
Describe R	ecorded Data (stream	gauge, monito	ring well, aerial	photos, p	revious ins	spections),	if available:				
Remarks:V	ernal pools are locate	ted on a slop	e that receive	s its wate	er from sh	neet flow.					

Project/Site: The Valley's Edge	City/Cour	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W72		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local rel	ief (concave,	convex, none):conc	ave	Slop	oe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datur	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	ı in Remaı	·ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	l? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No 🔘	
			oblematic'		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, im	oortant fea	atures, etc	
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
		Absolute	Dominar	nt Indicator	Dominance Test	workshee	rt:		
<u>Tree Stratum</u> (Use scientific names.)	_	% Cover	Species	? Status	Number of Domina	ant Specie	S		
1				_	That Are OBL, FA	CW, or FA	C: 3	(A)	
2					Total Number of D				
3					Species Across Al	l Strata:	3	(B)	
4	Total Cover:	%			Percent of Domina			(A/B)	
Sapling/Shrub Stratum	Total Cover.	%0			That Are OBL, FA	CVV, OF FA	.C: 100	0.0 % (A/B)	
1				_	Prevalence Index		et:		
2					Total % Cover		Multiply		
3					OBL species	10	x 1 =	10 30	
4. 5.				_	FACW species FAC species	15 45	x 2 = x 3 =	135	
J	Total Cover:	%			FACU species	45	x 4 =	0	
Herb Stratum	rotar covor.	70			UPL species		x 5 =	0	
1.Hordeum marinum gussoneanum	<u>ı</u>	35	Yes	FAC	Column Totals:	70	(A)	175 (E	
2.Psilocarphus brevissimus		10	Yes	FACW	- Danielan et l		, ,		
3. Festuca perennis		10	Yes	FAC	Prevalence I Hydrophytic Vege			2.50	
4. Deschampsia danthonioides		5	No	FACW	Dominance Te				
5. Pogogyne ziziphoroides 6.		10	No	OBL	× Prevalence In				
7.					Morphological	Adaptatio	ons ¹ (Provide	supporting	
8.				_	data in Rer	marks or c	n a separate	sheet)	
	Total Cover:	70 %			Problematic H	lydrophytic	C Vegetation ¹	(Explain)	
Woody Vine Stratum		, 0 ,0			1 Indicators of buds	io ooil oo	d watland by	dralagy, mysel	
1				_	Indicators of hydrobe present.	ic soil and	a wetland nyo	arology musi	
2		0/			Hydrophytic				
	Total Cover:				Vegetation				
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes	No 🖯	ı	
Remarks:									

Profile Des	scription: (Describe	to the depth ne	eded to docui	ment the	indicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Feature								
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	2.5 YR 2.5/3	_ 95 2.5 Y	R 4/8	5	C	<u>PL</u>	Gravelly clay loam					
				- ——								
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand Gr		Location: PL=Pore Lining, M=Matrix.				
	Indicators: (Applicat	ole to all LRRs, un	less otherwise	noted.)				Problematic Hydric Soils: ³				
Histoso	, ,		Sandy Redo	. ,				k (A9) (LRR C)				
	Epipedon (A2)	L	Stripped Ma	` ,				k (A10) (LRR B)				
	Histic (A3) Jen Sulfide (A4)	L	Loamy Mud	-	. ,			Vertic (F18) nt Material (TF2)				
	ed Layers (A5) (LRR	C)	Depleted M				=	plain in Remarks)				
	luck (A9) (LRR D)		Redox Dark	` '				,				
	ed Below Dark Surfac	ce (A11)	Depleted D	ark Surfa	ice (F7)		a la d'antono afi	harden had a constation and				
	Dark Surface (A12)		Redox Dep		(F8)			hydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4)						unicss dis	inbuted of problematic				
	Layer (if present):											
Type:												
Depth (ii	nches):						Hydric Soil Pr	esent? Yes No				
Remarks:												
HYDROLO	OGY											
Wetland H	ydrology Indicators:											
	licators (minimum of o		ck all that appl	v)			Seconda	ry Indicators (2 or more required)				
	e Water (A1)	one required, one	Salt Crust					er Marks (B1) (Riverine)				
	/ater Table (A2)		Biotic Crus	` '				iment Deposits (B2) (Riverine)				
	tion (A3)		Aquatic In		es (B13)		<u> </u>	Deposits (B3) (Riverine)				
	Marks (B1) (Nonrive i	rine)	Hydrogen					nage Patterns (B10)				
	ent Deposits (B2) (No					Living Roc		Season Water Table (C2)				
	eposits (B3) (Nonrive				ed Iron (C	_		rfish Burrows (C8)				
	e Soil Cracks (B6)	,				ved Soils (0		ration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial	Imagery (B7)	Thin Muck	Surface	(C7)		Shal	low Aquitard (D3)				
Water-	Stained Leaves (B9)	ĺ	Other (Exp	olain in R	emarks)		 FAC	-Neutral Test (D5)				
Field Obse	rvations:	-										
Surface Wa	ater Present?	∕es ○ No ④	Depth (in	ches):								
Water Table	e Present?	∕es ○ No ●	Depth (in	ches):								
Saturation I	Present? \apillary fringe)	∕es ○ No ●	Depth (in	ches):		Wetla	and Hydrology P	resent? Yes No				
	ecorded Data (stream	n gauge, monitori	ng well, aerial	photos, p	revious ins			-				
Remarks:V	ernal pools are loc	ated on a slope	that receives	its wat	er from sh	neet flow.						
	*	1										

Project/Site: The Valley's Edge	City/Cour	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W73		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace			Local rel	lief (concave,	convex, none):conc	ave	Slop	oe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No	\circ
			oblematic		eeded, explain any a				
SUMMARY OF FINDINGS - Att					• •		,	oturos	oto
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ing point it	ocations, transe	icis, iiii	portant lea	itures,	eic.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No C		
VEGETATION									
Trace Charles (Han an instiffer an array)		Absolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina That Are OBL, FA				(
1. 2.				_	- I Hat Ale OBL, FAI	CVV, OI FF	10. 4	((A)
3.					Total Number of D Species Across Al		4		(B)
4.				_	_			,	(D)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum								.0 /0 (,,,,,
1					Prevalence Index				
2					OBL species	10	Multiply x 1 =	10	
3. 4.				_	FACW species	20	x 2 =	40	
5.					FAC species	45	x 3 =	135	
o	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		70			UPL species	10	x 5 =	0	
1. Festuca perennis		25	Yes	FAC	Column Totals:	85	(A)	225	(B)
2. Hordeum marinum gussoneanum		20	Yes	FAC			, ,	2.65	
3. Deschampsia danthonioides		20	Yes	FACW	Prevalence I			2.65	
4.Lasthenia fremontii		10	Yes	OBL	Hydrophytic Veg				
5.Bromus hordeaceus		5	No	FACU	× Prevalence In				
6. Festuca myuros 7.		3	No	FACU	Morphological			supportir	na
8.					data in Rei	marks or c	n a separate	sheet)	.9
o	Total Cover:	85 %			Problematic H	lydrophyti	c Vegetation ¹	(Explain))
Woody Vine Stratum	Total Gover.	83 %							
1					¹ Indicators of hydibe present.	ric soil an	d wetland hyd	drology n	nust
2				_	-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	% Cover of	of Biotic C	Crust	%	Present?	Yes 💿	No C		
Remarks:					1				

0-4	Color (moist) 2.5 YR 2.5/3	% 95	Colo 2.5 YR	r (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3	95	2.5 YR	1.70					
			2.0 11	. 4/8	3	C	PL	Gravelly clay loam	
			5 YR 5	5/8	2	C	PL		
Гуре: C=C	oncentration, D=Deple	tion, RM	=Reduc	ed Matrix. CS	=Cover	ed or Coate	ed Sand Gra	ains ²	Location: PL=Pore Lining, M=Matrix
ydric Soil Ir	ndicators: (Applicable	to all LR	Rs, unle	ss otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3
Histosol	(A1)			Sandy Redox					(A9) (LRR C)
_	pipedon (A2)			Stripped Ma	, ,				k (A10) (LRR B)
Black Hi				Loamy Muck					Vertic (F18)
	en Sulfide (A4)			Loamy Gley					nt Material (TF2)
	d Layers (A5) (LRR C)			Depleted Ma	,	•		Uther (Exp	plain in Remarks)
	uck (A9) (LRR D) d Below Dark Surface	(A11)	\vdash	Redox Dark Depleted Da		` '			
	ark Surface (A12)	(7(1)		Redox Depr		` '		3 Indicators of h	nydrophytic vegetation and
	Mucky Mineral (S1)		H	Vernal Pools		(. 0)		wetland hyd	drology must be present.
_	Gleyed Matrix (S4)				, ,			unless dist	ributed or problematic
estrictive l	Layer (if present):								
Type:									
Depth (in	ches):							Hydric Soil Pre	esent? Yes No
emarks:									
/DROLO	GY								
	drology Indicators:								
-	cators (minimum of one	e require	d chack	all that annly	/)			Secondar	y Indicators (2 or more required)
	Water (A1)	e require	u, criece	Salt Crust (er Marks (B1) (Riverine)
_	ater Table (A2)			Biotic Crus	` ′				ment Deposits (B2) (Riverine)
Saturation	` '		<u> </u>	Aquatic Inv		tos (R13)			Deposits (B3) (Riverine)
=	larks (B1) (Nonriverin	a)		Hydrogen S		, ,			nage Patterns (B10)
=	nt Deposits (B2) (Nonr		<u> </u>	Oxidized R		` '	Living Root	= -	Season Water Table (C2)
	posits (B3) (Nonriveri i	,		Presence of		_	_		fish Burrows (C8)
='	Soil Cracks (B6)	10)	-	Recent Iron		,	•		ration Visible on Aerial Imagery (C9)
_	on Visible on Aerial Im	agery (B	37)	Thin Muck			, ou como (c		ow Aquitard (D3)
=	tained Leaves (B9)	lagory (E	"'	Other (Expl		` '			Neutral Test (D5)
ield Obser	. ,] 0 11101 (2)4				<u> </u>	(- 0)
		s (No 💿	Depth (inc	:hes):				
Vater Table			No (•	Depth (inc	· —				
aturation P	_		No (Depth (inc	· —				
	oillary fringe)	s (INO (Wetla	ınd Hydrology Pr	resent? Yes No
escribe Re	corded Data (stream g	auge, m	onitoring	well, aerial p	hotos, p	orevious ins	pections), i	f available:	
emarks:Ve	rnal pools are locate	ed on a	slope th	nat receives	its wat	er from sh	eet flow.		

Project/Site: The Valley's Edge	City/Cou	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W74		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	lief (concave,	convex, none):conc	ave	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	-6	 Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (\bigcirc
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att				`	, ,		,	aturas	etc
SOMMAN OF THE HOUSE ALL	·			ing point it	Juanons, transe	, IIII	portant lea		CIC.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No			the Sample					
Remarks:	Yes (No		W	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.		70 00101	Орослос	<u> Otatao</u>	Number of Domina That Are OBL, FA			((A)
2.					-		_	`	
3.					 Total Number of D Species Across Al 		2	-	(B)
4.					- Percent of Domina		0		` /
	Total Cover:	%			That Are OBL, FA			0.0%	(A/B)
Sapling/Shrub Stratum					Prevalence Index	worksho	ot:		
1. 2.				_	Total % Cove		Multiply	v hv	
3.			-		OBL species	5	x 1 =	5	
4.					FACW species	10	x 2 =	20	
5.				 .	FAC species	55	x 3 =	165	
	Total Cover:	%		_	FACU species	10	x 4 =	40	
Herb Stratum			**		UPL species		x 5 =	0	
1. Festuca perennis		35	Yes	FAC	Column Totals:	80	(A)	230	(B)
2.Hordeum marinum gussoneanum 3.Deschampsia danthonioides	-	20	Yes	FAC	Prevalence I	ndex = B	/A =	2.88	
4.Lasthenia fremontii		10 5	No No	- FACW OBL	Hydrophytic Veg				
5.Bromus hordeaceus		5	No	FACU	X Dominance To				
6. Festuca myuros		5	No	FACU	× Prevalence In	dex is ≤3.	01		
7.					Morphologica	l Adaptatio	ons ¹ (Provide	supportir	ng
8.					l		on a separate		`
	Total Cover:	80 %			- Problematic F	iyaropnyti	c vegetation	(Explain))
Woody Vine Stratum					¹ Indicators of hyd	ric soil an	d wetland hv	drology r	must
1. 2.					be present.	110 3011 411	a welland hy	alology II	iiust
	Total Cover:	%			Hydrophytic				
20					Vegetation	0			
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No C	1	
Remarks:									

Profile Description: (Describe to the	depth needed to docu	ment the	indicator	or confirm	n the absence of	indicators.)			
Depth <u>Matrix</u>		x Feature							
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4 2.5 YR 2.5/3 98	2.5 YR 4/8	_ 1	C	<u>PL</u>	Gravelly clay loam				
	5 YR 5/8	1	C	PL					
	_								
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix. C	S=Covere	d or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
	100 1 4 1	4 13				3			
Hydric Soil Indicators: (Applicable to all Histosol (A1)	Sandy Redo					Problematic Hydric Soils: ³ k (A9) (LRR C)			
Histic Epipedon (A2)	Stripped M	` '			<u> </u>	k (A10) (LRR B)			
Black Histic (A3)	Loamy Muc	, ,	al (F1)			Vertic (F18)			
Hydrogen Sulfide (A4)	Loamy Gle	yed Matrix	(F2)		Red Pare	nt Material (TF2)			
Stratified Layers (A5) (LRR C)	Depleted M	` ,			Other (Ex	plain in Remarks)			
1 cm Muck (A9) (LRR D)	Redox Darl		. ,						
Depleted Below Dark Surface (A11)			` '		3 Indicators of	hydrophytic vegetation and			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dep Vernal Poo		(F8)		wetland hydrology must be present.				
Sandy Mucky Milleral (S1) Sandy Gleyed Matrix (S4)	vernai Foo	15 (1-9)			unless distributed or problematic				
Restrictive Layer (if present):									
Type:									
Depth (inches):					Hydric Soil Pro	esent? Yes No			
Remarks:									
HYDROLOGY									
Wetland Hydrology Indicators:		L. A			Secondar	ry Indicators (2 or more required)			
Primary Indicators (minimum of one requ		-				er Marks (B1) (Riverine)			
Surface Water (A1)	Salt Crust	` '				ment Deposits (B2) (Riverine)			
High Water Table (A2)	Biotic Cru		o (D12)			Deposits (B3) (Riverine)			
Saturation (A3)	Aquatic In				=	nage Patterns (B10)			
Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Hydrogen Ovidized I		eres along	Living Po		Season Water Table (C2)			
Drift Deposits (B3) (Nonriverine)	=		ed Iron (C	-	` ' 🔛 -	fish Burrows (C8)			
Surface Soil Cracks (B6)	=		ion in Ploy			ration Visible on Aerial Imagery (C9)			
Inundation Visible on Aerial Imagery	<u></u>			rea cons (low Aquitard (D3)			
Water-Stained Leaves (B9)	Other (Ex		. ,			-Neutral Test (D5)			
Field Observations:			omarito)						
Surface Water Present? Yes	No Depth (in	ches):							
Water Table Present? Yes	No Depth (in	· —							
Saturation Present? Yes	No Depth (in								
(includes capillary fringe)					land Hydrology P	resent? Yes 💿 No 🖯			
Describe Recorded Data (stream gauge	monitoring well, aerial	photos, p	revious ins	pections),	if available:				
Develop	1 4								
Remarks:Vernal pools are located or	a slope that receives	s its wate	r from sh	eet flow.	•				
Remarks: Vernal pools are located or	a slope that receives	s its wate	r from sh	eet flow.					
Remarks:Vernal pools are located or	a slope that receives	s its wate	r from sh	eet flow.					

Project/Site: The Valley's Edge	City/Cou	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W75		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	e		Local re	lief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datu	m:WGS 8	34
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	 ol	
Are climatic / hydrologic conditions on the	*	•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (
			oblematic		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att				`	, ,		,	oturos c	1
SUMMART OF FINDINGS - ALL	acii site iliap si	lowing	Sampii	ing point it	ocations, transe	icis, iiii	portant le	itures, e	;iG.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sample			_		
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	•	No (
Tromane.									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		nt Indicator ? Status	Dominance Test				
1.		76 COVEL	Species	Status_	Number of Domina That Are OBL, FA			(A	7)
2.					-			(//	.,
3.					 Total Number of D Species Across Al 		3	(B	3)
4.					_			(2	,
	Total Cover:	%			Percent of Domina That Are OBL, FA).0 % (A	/B)
Sapling/Shrub Stratum								10 /0 (,
1					Prevalence Index Total % Cove			u bu	
2. 3.					OBL species	10	Multipl x 1 =	10	
4.					FACW species	10	x 2 =	20	
5.					FAC species	50	x 3 =	150	
<u></u>	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum					UPL species	10	x 5 =	0	
1. Festuca perennis		30	Yes	FAC	Column Totals:	80	(A)	220	(B)
2.Hordeum marinum gussoneanum	<u>. </u>	20	Yes	FAC	- Dravalanca I	adau D	/^	2.75	
3.Deschampsia danthonioides		10	Yes	FACW	Prevalence I Hydrophytic Veg			2.75	
4. Lasthenia fremontii		10	No	OBL	Dominance Te				
5.Bromus hordeaceus		5	No No	FACU FACU	× Prevalence In				
6. Festuca myuros 7.			110	- FACU	Morphological			supporting	נ
8.					data in Rei	marks or c	on a separate	sheet)	•
	Total Cover:	80 %			Problematic H	lydrophyti	c Vegetation ¹	(Explain)	
Woody Vine Stratum		ou %							
1					¹ Indicators of hydibe present.	ric soil an	d wetland hy	drology mu	ıst
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum20	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:									

Profile Des	cription: (Describe t	o the depth nee	ded to docun	nent the	indicator	or confirm	n the absence o	f indicators.)			
Depth	Matrix			c Feature							
(inches)	Color (moist)		or (moist)	%_	Type ¹	Loc ²	Texture	Remarks			
0-4	2.5 YR 2.5/3	95 2.5 Y	R 4/8	4	C	<u>PL</u>	Gravelly clay loa	<u>m</u>			
		5 YR	5/8	1	C	PL					
-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Hudria Cail	Indiantoro, (Applianto	a to all I BBa uni	ann athamuian	noted \			Indiantoro fo	r Problematic Hydric Soils: ³			
Histoso	Indicators: (Applicable (A1)	e to all LRRS, uni	Sandy Redox					uck (A9) (LRR C)			
l <u>—</u>	pipedon (A2)	<u> </u>	Stripped Ma	. ,				uck (A10) (LRR B)			
	listic (A3)		Loamy Muc	` '			Reduce	d Vertic (F18)			
Hydrog	en Sulfide (A4)		Loamy Gley				Red Par	ent Material (TF2)			
	ed Layers (A5) (LRR C)	Depleted Ma	,	,		Other (E	explain in Remarks)			
l	luck (A9) (LRR D)	(0.4.4)	Redox Dark		, ,						
ı Ш .	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted Da		, ,		3 Indicators o	f hydrophytic vegetation and			
l	Mucky Mineral (S1)		Vernal Pool		(ГО)		wetland hydrology must be present.				
	Gleyed Matrix (S4)	L	_ vernar r oor	3 (1 3)			unless di	stributed or problematic			
	Layer (if present):										
Type:											
Depth (ir	nches):						Hydric Soil F	Present? Yes No No			
Remarks:											
HYDROLO	OGY										
	/drology Indicators:										
_	icators (minimum of or	ne required: chec	k all that annly	v)			Second	ary Indicators (2 or more required)			
	e Water (A1)	required, cried	Salt Crust					ater Marks (B1) (Riverine)			
l 🖳	ater Table (A2)	L	Biotic Crus	,				diment Deposits (B2) (Riverine)			
1 == -	ion (A3)	L [Aquatic Inv		es (B13)			ft Deposits (B3) (Riverine)			
l <u>—</u>	Marks (B1) (Nonriveri i	ne)	Hydrogen					ainage Patterns (B10)			
1 ==	ent Deposits (B2) (Non	·	= ' '		eres along	Living Roo	= =	/-Season Water Table (C2)			
	eposits (B3) (Nonriver	, <u>-</u>	Presence		_	-	` / 🖳	ayfish Burrows (C8)			
	e Soil Cracks (B6)	ĺ	Recent Iro					turation Visible on Aerial Imagery (C9)			
	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)		Sh	allow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		 F A	C-Neutral Test (D5)			
Field Obse	rvations:										
Surface Wa	ter Present? Ye	es No 💿	Depth (inc	ches):							
Water Table	e Present? Ye	es No 💿	Depth (inc	ches):							
Saturation F	1 0	es O No 💿	Depth (inc	ches):		Wet	land Hydrology	Present? Yes No			
	apillary fringe) ecorded Data (stream	gauge monitorin	n well aerial r	ohotos r	revious ins		if available:	Fresent? res No			
2 3301100 100	223.202 Bala (olloull)	J-10 J0, 111011110111		, p		,	,				
Remarks:V	ernal pools are loca	ted on a slone	that receives	its wat	er from sh	eet flow					
. tomano. y	ernar poors are roca	ca on a stope	10001708	113 wat	C1 11 O111 SI	110 W.	•				

Project/Site: The Valley's Edge	City/Cour	nty:Butte		San	npling Date: 1	1/11/14			
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:W76		
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): terrace)		Local rel	lief (concave,	convex, none):conc	ave	Slop	pe (%):4	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	714091		Long:-121.77704	6	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the			ear? Yes	No (
			disturbed		"Normal Circumstand		,	No (\circ
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta							,	oturos	oto
SUMMART OF FINDINGS - ALL	ach site map si	lowing	Sampii	ing point it	ocations, transe	icis, iiii	portant lea	ilures,	elc.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No	_		the Sample					
Wetland Hydrology Present? Remarks:	Yes No		W	ithin a Wetla	nd? Yes	(•)	No C		
Tromano.									
VEGETATION									
		bsolute		nt Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domina			,	(A)
1					That Are OBL, FA	CVV, or FA	C: 3	(,	(A)
2					Total Number of D		4		(D)
4.			-		Species Across Al	i Siraia.	4		(B)
T	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 % (/	A/B)
Sapling/Shrub Stratum	Total Cover.	70						0 % (/	н, Б)
1					Prevalence Index				
2			-		Total % Cover		Multiply		
3					OBL species	5	x 1 =	5	
4					FACW species FAC species	10 50	x 2 = x 3 =	20 150	
5	Total Cover:	%			FACU species	15	x 4 =	60	
Herb Stratum	Total Cover.	%0			UPL species	13	x 5 =	0	
1.Hordeum marinum gussoneanum		30	Yes	FAC	Column Totals:	80	(A)	235	(B)
2. Festuca perennis		20	Yes	FAC		00	(7.1)		(-/
3. Deschampsia danthonioides	-	10	Yes	FACW	Prevalence I			2.94	
4. Bromus hordeaceus		10	Yes	FACU	Hydrophytic Veg				
5.Lasthenia fremontii		5	No	OBL	X Dominance Te				
6.Festuca myuros		5	No	FACU	X Prevalence In Morphological			cupportin	n a
7				_	data in Rer	marks or c	on a separate	sheet)	ig
8	Total Cayor	0.0			Problematic H	lydrophytic	c Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover:	80 %							
1.					¹ Indicators of hydr	ic soil and	d wetland hyd	drology m	nust
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 20	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:									

Profile Des	cription: (Describe t	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3	99 <u>2.5 Y</u>	R 4/8	1	<u>C</u>	<u>PL</u>	Gravelly clay loan	1
	-			-				-
¹ Type: C=0	Concentration, D=Deple	etion, RM=Redu	iced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indiantara, (Annlianh)	a to all I DDa um	loop othorwio	noted \			Indicators for	Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LKKS, un	Sandy Redo					ck (A9) (LRR C)
	Epipedon (A2)	<u> </u>	Stripped M	, ,				ck (A10) (LRR B)
	listic (A3)	F	Loamy Mu	, ,			<u> </u>	Vertic (F18)
Hydrog	en Sulfide (A4)	Ī	Loamy Gle	yed Matri	x (F2)		Red Pare	ent Material (TF2)
Stratifie	ed Layers (A5) (LRR C) [Depleted M	1atrix (F3)		Other (E)	rplain in Remarks)
	luck (A9) (LRR D)		Redox Dar		, ,			
	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Oark Surface (A12)	L	Redox Dep		(F8)			/drology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Poo	ois (F9)				tributed or problematic
	Layer (if present):							
Type:	Layor (ii procont):							
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No
Remarks:							i i yan o con i i	100 (3) 110 (3)
HYDROLO								
1	drology Indicators:							
Primary Ind	icators (minimum of or	ne required; che	ck all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	t (B11)				ter Marks (B1) (Riverine)
l 🖳 🤚	ater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
Saturat	ion (A3)		Aquatic Ir	vertebrat	es (B13)			Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri i		Hydrogen				= =	nage Patterns (B10)
	ent Deposits (B2) (Non		_		eres along	_	(/ 🖳 -	Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)	=		ced Iron (C			fish Burrows (C8)
	e Soil Cracks (B6)		=		tion in Plov	ved Soils (· <u>—</u>	uration Visible on Aerial Imagery (C9)
=	tion Visible on Aerial In	nagery (B7)	Thin Muck		. ,			llow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse		O O						
		es No 💽		· —				
Water Table		es O No 💽						
Saturation F	Present? Ye apillary fringe)	s No 💽	Depth (ir	nches):		Wetl	and Hydrology F	Present? Yes No
	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, p	revious ins			
Remarks:V	ernal pools are locat	ted on a slope	that receives	s its wat	er from sh	neet flow.		

Project/Site: The Valley's Edge	nty:Butte		San	npling Date: 1	1/11/14				
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point:W77		
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	inge:S 4, T 21N, R	2E	_		
Landform (hillslope, terrace, etc.): fan te	errace		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):2	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	710738		Long:-121.76468	32	Datum:WGS 84		
Soil Map Unit Name: Clearhayes-Ham		ent slor	oes		NWI cla	ssification	:Vernal swa	ıle	
Are climatic / hydrologic conditions on th				No (
			disturbed		"Normal Circumstand			No (\circ
	-		oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - At	· • ·				,		,	aturas	etc
			Jampii	ng ponit i	Joanons, transc	,013, 1111	portant re		CIO.
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present?	Yes No			the Sampled					
Wetland Hydrology Present? Remarks:	Yes No		Wi	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.		70 OOVCI	Орсскоз	: Otatus	Number of Domina That Are OBL, FA				(A)
2.			-	_	-		.0. 3	,	(* ')
3.			-		 Total Number of D Species Across Al 		5	((B)
4.					- Percent of Domina		c		` ,
Cooling/Chrub Strotum	Total Cover:	%			That Are OBL, FA			.0 %	A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshe	et:		
2.				_	Total % Cove		Multipl	v bv:	
3.					OBL species	30	x 1 =	30	
4.				_	FACW species	15	x 2 =	30	
5					FAC species	20	x 3 =	60	
	Total Cover:	%			FACU species	20	x 4 =	80	
Herb Stratum			**		UPL species		x 5 =	0	
1 Eryngium castrense		25	Yes	OBL	Column Totals:	85	(A)	200	(B)
2-Festuca perennis		20	Yes	FAC	Prevalence I	ndex = B	/A =	2.35	
3. Juncus bufonius 4. Leontodon saxatillis		10	Yes Yes	FACU.	Hydrophytic Veg			2.33	
5.Bromus hordeaceus		10	Yes	FACU FACU	X Dominance To				
6.Lasthenia fremontii		5	$\frac{1 \text{ cs}}{\text{No}}$	OBL	× Prevalence In				
7.Epilobium densiflorum		5	No	FACW	Morphologica				ng
8.			-	_			n a separate		
	Total Cover:	85 %		_	Problematic F	lydrophyti	c Vegetation'	(Explain))
Woody Vine Stratum		32 /0			11-diagtons of book		مريط لمصملامين		
1					¹ Indicators of hydrometric be present.	ric soil an	a wetland ny	arology n	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 1	5 % Cover of		ruet	0/-	Vegetation Present?	Yes •	No C	١	
Remarks:		טווטווט (<u>%</u>	1 lesellt!	169	140	,	
romans.									
1									

Profile De	scription: (Describe	to the depth nee	ded to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%Col	or (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-6	5 YR 3/3	95 2.5 Y	R 4/8	5	C	PL	Cobbly clay loam	
-								
	_							
								_
	_							-
¹ Type: C=	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	Location: PL=Pore Lining, M=Matrix.
								D 11 11 11 0 11 3
	Indicators: (Applicable of (A1)	e to all LKKS, uni	Sandy Redo					Problematic Hydric Soils: ³ ck (A9) (LRR C)
_	Epipedon (A2)		Sandy Redd	` '				ck (A10) (LRR B)
	Histic (A3)		Loamy Muc	. ,				Vertic (F18)
	gen Sulfide (A4)		Loamy Gle	-	. ,			ent Material (TF2)
	ied Layers (A5) (LRR C)	Depleted M					rplain in Remarks)
1 cm l	Muck (A9) (LRR D)		Redox Darl	k Surface	e (F6)			
Deplet	ted Below Dark Surface	e (A11)	Depleted D	ark Surfa	ace (F7)		³ Indicators of	hydrophytic vegetation and
	Dark Surface (A12)	\times	Redox Dep		(F8)			/drology must be present.
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				tributed or problematic
	Gleyed Matrix (S4)						dilicas dis	tributed of problematic
	e Layer (if present):							
Type:								
Depth (inches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROL	OGY							
	lydrology Indicators:						Sacanda	ny Indiantara (2 or more required)
	dicators (minimum of o	ne requirea; cned						ry Indicators (2 or more required) ter Marks (B1) (Riverine)
	ce Water (A1)		Salt Crust	` ,				, , ,
l 🖳 🐧	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
l 🖳	ation (A3)	Ĺ	Aquatic In					Deposits (B3) (Riverine)
l 🗀	Marks (B1) (Nonriveri	· '	Hydrogen		` '		= =	nage Patterns (B10)
=	ent Deposits (B2) (Nor		=		eres along	-	, ,	Season Water Table (C2)
==	eposits (B3) (Nonriver	rine)	=		ced Iron (C	,		rfish Burrows (C8)
=	ce Soil Cracks (B6)	(57)	=		tion in Plov	ved Soils (uration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	Thin Muck		` '			llow Aquitard (D3)
	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	c-Neutral Test (D5)
Field Obs								
		es No 💿	Depth (in					
Water Tab	le Present? You	es O No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):		Wot	land Hydrology P	Present? Yes No
	apillary fringe) Recorded Data (stream	gauge monitorin	g well aerial	nhotos r	revious ins			resent: 165 (FIND
2 COOLIDG IV	Data (Strodill	gaago, monitoriii	5, aonai	r.10100, þ		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	available.	
Remarks:								
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	778	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	ange:S 4, T 21N, R	2E	_		
Landform (hillslope, terrace, etc.): fan te	rrace		Local rel	lief (concave,	convex, none):conc	ave	Slop	oe (%):2	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	710738		Long:-121.76468	32	 Datur	n:WGS 84	
Soil Map Unit Name: Clearhayes-Hams		ent slor	oes		NWI cla	assification	Vernal pool		
Are climatic / hydrologic conditions on the				No (
			disturbed		"Normal Circumstan		,	No 🔘	
	-		oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att							,	itures et	C
	·		Jampii	ng pomit i	Journal, trains				<u> </u>
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No	_		the Sampled			No. O		
Remarks:	162 6 140		W	ithin a Wetla	na? Yes	0	No (
VEGETATION									
VEGETATION		bsolute	Dominar	nt Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domin				
1					That Are OBL, FA			(A)	
2					Total Number of D	Oominant			
3				_	Species Across A	Il Strata:	5	(B)	
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	.0 % (A/B	3)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	by:	
3.					OBL species	35	x 1 =	35	
4				_	FACW species	30	x 2 =	60	
5					FAC species	15	x 3 =	45	
Herb Stratum	Total Cover:	%			FACU species		x 4 =	0	
1.Eryngium castrense		25	Yes	OBL	UPL species	0.0	x 5 =	0	D)
2. Festuca perennis		15	Yes	FAC	Column Totals:	80	(A)	140 (I	B)
3. Plagiobothrys stipitatus		10	Yes	FACW	Prevalence	Index = B/	A =	1.75	
4. Deschampsia danthonioides		10	Yes	FACW	Hydrophytic Veg	etation Ind	dicators:		
5. Juncus bufonius		10	Yes	FACW	X Dominance T				
6. Lythrum sp.		5	No	OBL	× Prevalence Ir				
7. Lasthenia fremontii		5	No	OBL	Morphologica	l Adaptatio	ns¹ (Provide : n a separate	supporting	
8					- Problematic H				
Woody Vine Stratum	Total Cover:	80 %				.,	rogotation	(=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1.					¹ Indicators of hyd	ric soil and	d wetland hyd	Irology mus	st
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 20) % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes	No 〇		
Remarks:									_

(inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	es Type¹	Loc ²	Texture	Remarks
				_		LOC		Remarks
0-6	5 YR 3/3	93	2.5 YR 4/8	_ 3	- <u>C</u>		Gravelly loam	_
			2.5 YR 4/8	4	<u>C</u>		Gravelly loam	_
	-			_				-
	-			_				-
Tupo: C-C	Concentration, D=Deple				- — — — — — — — — — — — — — — — — — — —		raina	2 Location: PL=Pore Lining, M=Matri
Type. C=C	concentration, D=Depte	elion, Kivi	=Reduced Matrix. C	-S=Cover	ed of Coale	u Sanu G		
	Indicators: (Applicable	to all LR						Problematic Hydric Soils: 3
Histoso			Sandy Red	. ,				ck (A9) (LRR C)
	Epipedon (A2)		Stripped M	` '				ck (A10) (LRR B)
	Histic (A3)		Loamy Mu					Vertic (F18)
	len Sulfide (A4) ed Layers (A5) (LRR C)	١	Loamy Gle				<u></u>	ent Material (TF2) xplain in Remarks)
	luck (A9) (LRR D))	Redox Dai	•	,		U Other (E.	xpiain in Remarks)
	ed Below Dark Surface	(Δ11)	Depleted D		, ,			
	Park Surface (A12)	(7(1)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		(10)		wetland h	ydrology must be present.
_	Gleyed Matrix (S4)		voman o	5.0 (1.0)			unless dis	stributed or problematic
	Layer (if present):							
	, · · · · · · · · · · · · · · · · · ·						1	
Type:								
Type:	oches):						Hydric Soil P	resent? Ves 🕒 No 🔿
Type: Depth (ir Remarks:	nches):						Hydric Soil P	resent? Yes No
Depth (ir	nches):						Hydric Soil P	resent? Yes No
Depth (ir Remarks:							Hydric Soil P	resent? Yes No
Depth (ir								
Depth (ir Remarks: YDROLO	DGY	ne require	ed; check all that app	oly)			Seconda	ary Indicators (2 or more required)
Depth (ir Remarks: YDROLC Vetland Hy	OGY ydrology Indicators:	ne require	ed; check all that app				Seconda Wa	ary Indicators (2 or more required) tter Marks (B1) (Riverine)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind	OGY ydrology Indicators: icators (minimum of on	ne require		t (B11)			Seconda Wa	ary Indicators (2 or more required)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind Surface High W	OGY ydrology Indicators: icators (minimum of on	ne require	Salt Crus	t (B11) ust (B12)	tes (B13)		Seconda Wa	ary Indicators (2 or more required) tter Marks (B1) (Riverine)
Depth (ir Remarks: YDROLC Vetland Hy Primary Indi Surface High W	OGY ydrology Indicators: icators (minimum of on e Water (A1) //ater Table (A2)	·	Salt Crus Biotic Cru Aquatic I	t (B11) ust (B12) nvertebra	tes (B13) Odor (C1)		Seconda Wa Sec	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine)
Depth (ir Remarks: YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N	ogy ydrology Indicators: icators (minimum of on water (A1) dater Table (A2) ition (A3)	ne)	Salt Crus Biotic Cru Aquatic II Hydroger	t (B11) ust (B12) nvertebra n Sulfide (Living Ro	Seconda Wa Sec Drif	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind Surface High W Saturat Water N Sedime	ydrology Indicators: icators (minimum of on we Water (A1) /ater Table (A2) icion (A3) Marks (B1) (Nonriverin	ne) riverine)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph	Odor (C1)	_	Seconda Wa Sec Drif Dra ots (C3)	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De	ydrology Indicators: icators (minimum of on e Water (A1) fater Table (A2) ition (A3) Marks (B1) (Nonrivering ent Deposits (B2) (Non	ne) riverine)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph	Odor (C1) neres along	1)	Seconda Wa Sec Drif Dra ots (C3) Cra	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind Surface High W Saturat Water N X Sedime Drift De X Surface	ydrology Indicators: icators (minimum of one water (A1) vater Table (A2) tion (A3) Marks (B1) (Nonrivering ent Deposits (B2) (Nonrivering esposits (B3) (Nonrivering esposits (B3) (Nonrivering esposits (B3) (Nonrivering esposits (B6)	ne) riverine) ne)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph of Reduc	Odor (C1) neres along ced Iron (C4 ction in Plow	1)	Seconda Wa Sec Drif Dra Dra Cra C6) Sati	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9
Depth (ir Remarks: YDROLC Yetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat	ydrology Indicators: icators (minimum of one water (A1) dater Table (A2) dion (A3) Marks (B1) (Nonrivering ent Deposits (B2) (Nonrivering eposits (B3) (Nonrivering	ne) riverine) ne)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph of Reduct on Reduct k Surface	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Seconda Wa Sec Drif Dra Ots (C3) Dry Cra C6) Sati Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8)
Primary Ind Saturat Water N Surface Drift De Surface Under N Saturat Water N Sedime Drift De Surface Unundat Water-S	ydrology Indicators: icators (minimum of one water (A1) /ater Table (A2) icion (A3) Marks (B1) (Nonrivering ent Deposits (B2) (None eposits (B3) (Nonrivering estable Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9)	ne) riverine) ne)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph of Reduct on Reduct k Surface	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Seconda Wa Sec Drif Dra Ots (C3) Dry Cra C6) Sati Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 illow Aquitard (D3)
Depth (ir Remarks: YDROLO Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Unundat Water-S Field Obse	ydrology Indicators: icators (minimum of one water (A1) fater Table (A2) fion (A3) Marks (B1) (Nonrivering ent Deposits (B2) (Nonrivering es Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9) rvations:	ne) riverine) ine) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Redu on Redu k Surface	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Seconda Wa Sec Drif Dra Ots (C3) Dry Cra C6) Sati Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 illow Aquitard (D3)
Depth (ir Remarks: YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat Water-S Field Obse	ydrology Indicators: icators (minimum of one Water (A1) // dater Table (A2) tion (A3) Marks (B1) (Nonrivering the Deposits (B2) (Nonrivering the Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9) rvations: ther Present? Ye	ne) riverine) ne) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Reduc on Reduc k Surface cplain in R	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Seconda Wa Sec Drif Dra Ots (C3) Dry Cra C6) Sati Sha	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 illow Aquitard (D3)
Depth (ir Remarks: YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat Water-S Field Obse Surface Water Table Saturation Fincludes ca	ydrology Indicators: icators (minimum of one water (A1) vater Table (A2) tion (A3) Marks (B1) (Nonrivering the posits (B3) (Nonrivering the Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9) rvations: the Present? Present? Ye epillary fringe)	ne) riverine) ne) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No Depth (ii No Depth (ii No Depth (iii	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Reduc on Reduc k Surface cplain in R nches): nches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	yed Soils (Seconda Wa Sec Drif Dra ots (C3) C6) Sate Sha FAC	ary Indicators (2 or more required) ster Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 allow Aquitard (D3) C-Neutral Test (D5)
Depth (ir Remarks: YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat Water-S Field Obse Surface Water Table Saturation Fincludes ca	ydrology Indicators: icators (minimum of one e Water (A1) /ater Table (A2) icion (A3) Marks (B1) (Nonrivering ent Deposits (B2) (Nonrivering exposits (B3) (ne) riverine) ne) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No Depth (ii No Depth (ii No Depth (iii	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Reduc on Reduc k Surface cplain in R nches): nches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	yed Soils (Seconda Wa Sec Drif Dra ots (C3) C6) Sate Sha FAC	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 tillow Aquitard (D3) C-Neutral Test (D5)
Depth (ir Remarks: YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat Inundat Water-S Field Obset Surface Wa Water Table Saturation F includes ca	ydrology Indicators: icators (minimum of one water (A1) vater Table (A2) tion (A3) Marks (B1) (Nonrivering the posits (B3) (Nonrivering the Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9) rvations: the Present? Present? Ye epillary fringe)	ne) riverine) ne) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No Depth (ii No Depth (ii No Depth (iii	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Reduc on Reduc k Surface cplain in R nches): nches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	yed Soils (Seconda Wa Sec Drif Dra ots (C3) C6) Sate Sha FAC	ary Indicators (2 or more required) ster Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 allow Aquitard (D3) C-Neutral Test (D5)
Depth (ir Remarks: YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Surface Inundat Water-S Field Obse Surface Water Table Saturation Fincludes ca	ydrology Indicators: icators (minimum of one water (A1) vater Table (A2) tion (A3) Marks (B1) (Nonrivering the posits (B3) (Nonrivering the Soil Cracks (B6) tion Visible on Aerial Im Stained Leaves (B9) rvations: the Present? Present? Ye epillary fringe)	ne) riverine) ne) nagery (B	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence Recent Ir Thin Muc Other (Ex No Depth (ii No Depth (ii No Depth (iii	t (B11) ust (B12) nvertebra n Sulfide (Rhizosph e of Reduc on Reduc k Surface cplain in R nches): nches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	yed Soils (Seconda Wa Sec Drif Dra ots (C3) C6) Sate Sha FAC	ary Indicators (2 or more required) ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 tillow Aquitard (D3) C-Neutral Test (D5)

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:W	V79
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	inge:S 4, T 21N, R	2E	_	
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slop	pe (%):2
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7		•	Long:-121.76468			m:WGS 84
Soil Map Unit Name: Clearhayes-Hams					_		:Vernal poo	
Are climatic / hydrologic conditions on the				No (
					"Normal Circumstan		,	No C
	-		disturbed					No 🖯
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	? (If ne	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map sh	nowing	sampli	ng point l	ocations, transe	ects, imp	oortant fea	atures, etc.
Hydrophytic Vegetation Present?	Yes 🕟 No							
Hydric Soil Present?	Yes No	_	le	the Sampled	I Area			
Wetland Hydrology Present?	Yes No			ithin a Wetla		•	No O	
Remarks:				itiliii a wotia	100		110	
VEGETATION								
Table Ottobal (Ulas asias)		Absolute		nt Indicator	Dominance Test	workshee	t:	
Tree Stratum (Use scientific names.)	<u></u>	% Cover	Species	? Status	Number of Domina			(4)
1. 2.					That Are OBL, FA	CVV, OF FA	C: 6	(A)
3.	 -			_	Total Number of D			(D)
4.					Species Across A	ii Strata:	6	(B)
4	Total Cover:	%		_	Percent of Domina			(A/D)
Sapling/Shrub Stratum	Total Cover.	70			That Are OBL, FA	CVV, OI FA	ic. 100).0 % (A/B)
1					Prevalence Index	workshe	et:	
2			-		Total % Cove	r of:	Multiply	
3					OBL species	25	x 1 =	25
4					FACW species	25	x 2 =	50
5					FAC species	15	x 3 =	45
Herb Stratum	Total Cover:	%			FACU species		x 4 =	0
1.Eryngium castrense		20	Yes	OBL	UPL species		x 5 =	0
2.Plagiobothrys stipitatus		10	Yes	FACW	Column Totals:	65	(A)	120 (B)
3. Hordeum marinum gussoneanum	 !	10	Yes	FAC	Prevalence	Index = B/	'A =	1.85
4. Deschampsia danthonioides		10	Yes	FACW	Hydrophytic Veg	etation In	dicators:	
5. Psilocarphus brevissimus		5	Yes	FACW	X Dominance T	est is >50%	%	
6. Festuca perennis		5	Yes	FAC	× Prevalence In			
7.Lythrum sp.		5	No	OBL	Morphologica	l Adaptatio	ons ¹ (Provide	supporting
8.					l		n a separate	
	Total Cover:	65 %			Problematic F	туагорпуш	vegetation	(Explain)
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hvo	drology must
1					be present.	110 3011 4110	a welland nyt	arology must
2	Total Cover:	%		_	Hydrophytic			
					Vegetation			
	5 % % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No 🖯	1
Remarks:				<u></u>				· · · · · · · · · · · · · · · · · · ·

Profile Des	cription: (Describe t	o the depth nee	ded to docun	nent the	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix			Feature							
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-6	5 YR 3/3	93 2.5 Y	R 4/8	3	<u>C</u>	<u>M</u>	Gravelly loam				
-		2.5 Y	R 4/8	4	<u>C</u>	PL					
	-										
Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Hudria Cail	Indicators: (Applicable	a to all I BBs uni	acc athorwica	noted \			Indicators	for Problematic Hydric Soils: 3			
Histoso		e to all ERRS, ulli	Sandy Redox					Muck (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)		Stripped Ma	. ,				Muck (A10) (LRR B)			
	Histic (A3)		Loamy Mucl	ky Miner	al (F1)		Reduc	ced Vertic (F18)			
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matri	ix (F2)		Red P	arent Material (TF2)			
	ed Layers (A5) (LRR C)	Depleted Ma	,	,		Other	(Explain in Remarks)			
l	luck (A9) (LRR D)		Redox Dark		` '						
ı Ш .	ed Below Dark Surface	(A11)	Depleted Da		. ,		3 Indicators	of hydrophytic vegetation and			
l	Dark Surface (A12)	×	Redox Depr		(F8)			d hydrology must be present.			
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pools	S (F9)			unless distributed or problematic				
	Layer (if present):										
Type:											
Depth (ir	nches):						Hydric Soil	Present? Yes No			
Remarks:							1.3,				
	201										
HYDROLO											
_	ydrology Indicators:						0				
Primary Ind	icators (minimum of or	ne required; chec						ndary Indicators (2 or more required)			
1 🖳	e Water (A1)	Ĺ	Salt Crust	` '				Water Marks (B1) (Riverine)			
<u> </u>	ater Table (A2)	Ĺ	Biotic Crus	` '				Sediment Deposits (B2) (Riverine)			
l 🖳	tion (A3)	Ĺ	Aquatic Inv					Orift Deposits (B3) (Riverine)			
🖳	Marks (B1) (Nonriveri i	· _	Hydrogen		, ,		=	Orainage Patterns (B10)			
=	ent Deposits (B2) (Non		Oxidized R		_	•	` ′ 🖳	Ory-Season Water Table (C2)			
	eposits (B3) (Nonriveri	ine)	Presence					Crayfish Burrows (C8)			
	e Soil Cracks (B6)	(5-)	Recent Iro			ved Soils (Saturation Visible on Aerial Imagery (C9)			
	tion Visible on Aerial In	nagery (B7)	Thin Muck		, ,			Shallow Aquitard (D3)			
	Stained Leaves (B9)	L	Other (Exp	lain in R	emarks)		X F	AC-Neutral Test (D5)			
Field Obse		No O	Danth (in	-h\·							
		es No No	Depth (inc	′—							
Water Table		es No 💿	Depth (inc	· -							
Saturation F	Present? Ye apillary fringe)	es No 💿	Depth (inc	ches):		Wetl	land Hydrolog	y Present? Yes No			
	ecorded Data (stream	gauge, monitorin	g well, aerial p	ohotos, p	revious ins						
Remarks:											

Project/Site: The Valley's Edge		City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:V	V80	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 4, T 21N, R	2E	_		
Landform (hillslope, terrace, etc.): fan ter	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):2	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	710738		Long:-121.76468	32	 Datu	m:WGS	84
Soil Map Unit Name: Clearhayes-Hams		ent slor	oes		NWI cla	assification	:Vernal poo	1	
Are climatic / hydrologic conditions on the				No (
			disturbed		"Normal Circumstan		_	No	\bigcirc
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att	<u> </u>						,	atures	etc.
				9 po		, , , , , , ,			
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No Yes No	_		the Commiss	I A no o				
Wetland Hydrology Present?	Yes No			the Sampled			No (
Remarks:	103 (110		W	itnin a wetia	nu? res		NO U		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test				
1.			<u> </u>	<u> </u>	Number of Domina That Are OBL, FA				(A)
2.					-				` /
3.					Total Number of D Species Across A		6		(B)
4.					-				` '
	Total Cover:	%			 Percent of Domina That Are OBL, FA 			0.0 %	(A/B)
Sapling/Shrub Stratum					Prevalence Index	, wastaba			
1					Total % Cove		et: Multipl	y by:	
2. 3.				_	OBL species	10	x 1 =	10	-
4.				- -	FACW species	25	x 2 =	50	
5.				_	FAC species	25	x 3 =	75	
	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum					UPL species		x 5 =	0	
1. Hordeum marinum gussoneanum	: 	20	Yes	FAC	Column Totals:	60	(A)	135	(B)
2 Deschampsia danthonioides		10	Yes	FACW	Prevalence	Indox - Pi	' Λ —	2.25	
3.Psilocarphus brevissimus		10	Yes	FACW	Hydrophytic Veg			2.23	
4. Festuca perennis		5	Yes Yes	FAC	X Dominance T				
5.Plagiobothrys stipitatus 6.Eryngium castrense		5	Yes	- FACW OBL	× Prevalence In				
7.Lythrum sp.		5	$\frac{1 \text{ cs}}{\text{No}}$	OBL	Morphologica			supporti	ng
8.					data in Re	marks or o	n a separate	sheet)	
	Total Cover:	60 %		_	Problematic H	Hydrophytic	c Vegetation ¹	(Explain	1)
Woody Vine Stratum		00 %			1				
1					¹ Indicators of hyd be present.	ric soil and	d wetland hy	ı ygolork	must
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum35	% Cover 0	of Biotic C	Crust	%	Present?	Yes 💿	No C)	
Remarks:									

Profile Des	scription: (Describe	to the depth nee	eded to docum	ent the	indicator	or confirm	n the absence of	indicators.)			
Depth	Matrix			Feature							
(inches)	Color (moist)		lor (moist)	%_	Type ¹	Loc ²	Texture	Remarks			
0-6	5 YR 3/3	93 2.5 Y	R 4/8	3	<u>C</u>	<u>M</u>	Gravelly loam				
		2.5 Y	R 4/8	4	C	PL					
	-	· ——				- ——					
		· ——						·			
								-			
	<u> </u>										
¹ Type: C=0	Concentration, D=Dep	letion, RM=Redu	ced Matrix. CS	=Cover	ed or Coate	ed Sand G		Location: PL=Pore Lining, M=Matrix.			
	Indicators: (Applicable	le to all LRRs, un	less otherwise	noted.)				Problematic Hydric Soils: ³			
Histoso	` '	L	Sandy Redox	. ,			<u></u>	k (A9) (LRR C)			
	Epipedon (A2) Histic (A3)	Ļ	Stripped Mat Loamy Muck	` '			<u> </u>	k (A10) (LRR B) Vertic (F18)			
	gen Sulfide (A4)	<u> </u>	Loamy Gley				_	nt Material (TF2)			
	ed Layers (A5) (LRR ()	Depleted Ma					plain in Remarks)			
	luck (A9) (LRR D)	´ -	Redox Dark	Surface	(F6)		` `	,			
	ed Below Dark Surface	e (A11)	Depleted Da		` ,		3 Indicators of	hydrophytic vegetation and			
	Dark Surface (A12)	\geq	Redox Depre		(F8)			-			
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Pools	s (F9)			wetland hydrology must be present. unless distributed or problematic				
	Layer (if present):										
Type:	Layer (ii present).										
Depth (ii	nches).						Hydric Soil Pro	esent? Yes No			
Remarks:							Tiyane con i i	esent: res es no			
rtomanto.											
HYDROLO											
Wetland Hy	ydrology Indicators:										
Primary Ind	licators (minimum of o	ne required; che	ck all that apply	<u>') </u>				ry Indicators (2 or more required)			
Surface	e Water (A1)		Salt Crust ((B11)				er Marks (B1) (Riverine)			
	/ater Table (A2)		Biotic Crus					iment Deposits (B2) (Riverine)			
	tion (A3)		Aquatic Inv		, ,			Deposits (B3) (Riverine)			
	Marks (B1) (Nonriver i		Hydrogen S					nage Patterns (B10)			
	ent Deposits (B2) (No	, ,	Oxidized R		_	_	` ' 🖃 '	Season Water Table (C2)			
	eposits (B3) (Nonriver	rine) [Presence of Recent Iron		`	,		rish Burrows (C8)			
	e Soil Cracks (B6) tion Visible on Aerial I	magany (B7)	Thin Muck			vea Solis (ration Visible on Aerial Imagery (C9) low Aquitard (D3)			
	Stained Leaves (B9)	magery (br)	Other (Expl		, ,			-Neutral Test (D5)			
Field Obse		L	Other (Expi	CIII III IV	- Ciriarito)			1100000 (20)			
		es O No 💽	Depth (inc	hes):							
Water Table		es No 💿		′ —							
Saturation I	_	es O No 💽		· · —							
(includes ca	apillary fringe)		. ,				land Hydrology P	resent? Yes No			
Describe R	ecorded Data (stream	gauge, monitorir	ng well, aerial p	hotos, p	previous ins	spections),	if available:				
Remarks:											

Project/Site: The Valley's Edge			City/C	ounty:Butte			Sa	mpling Date:	11/11/14
Applicant/Owner:B. Brouhard						State:CA	Sai	mpling Point	:W81
Investigator(s): D. Machek, E. Gregg			Section	on, Township, Ra	ange:S	32, T 32N,	R 2E		
Landform (hillslope, terrace, etc.): terra	ce		Local	relief (concave,	conve	x, none):con	cave	SI	lope (%):5
Subregion (LRR):C - Mediterranean (Lat:39.7	72893	8	Lon	g:-121.7671	66		tum:WGS 84
Soil Map Unit Name: Doemill-Jokerst								n:Vernal po	
Are climatic / hydrologic conditions on the		-	ar? V	es (• No ($\overline{}$	(If no, expla			
		gnificantly				al Circumstar		,	No (
	, , , , ,	,					•) NO
·	·	turally pro				explain any		,	
SUMMARY OF FINDINGS - A	tach site map sl	howing	sam	pling point le	ocati	ons, trans	ects, im	portant fo	eatures, etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No			Is the Sample	d Area				
Wetland Hydrology Present?	Yes No			within a Wetla	nd?	Yes	•	No 🔘	
Remarks:									
VEGETATION									
		Absolute		nant Indicator	Dor	ninance Tes	t workshe	et:	
Tree Stratum (Use scientific names.))	% Cover	Spec	ies? Status		nber of Domir			
1					Tha -	t Are OBL, FA	ACW, or F	AC:	3 (A)
2				<u>.</u>		al Number of			
3					_ Spe	cies Across A	All Strata:		3 (B)
4		2/				cent of Domir			
Sapling/Shrub Stratum	Total Cover:	%			Tha	t Are OBL, FA	ACW, or F	AC: 1(00.0 % (A/B)
1.					Pre	valence Inde	x worksh	eet:	
2.			"]	Total % Cov	er of:	Multip	ply by:
3.						_ species	25	x 1 =	25
4					_l	CW species		x 2 =	0
5					-	Species	55	x 3 =	165
Herb Stratum	Total Cover:	%				CU species		x 4 =	0
1.Hordeum marinum gussoneanui	m	30	Yes	FAC		_ species		x 5 =	0
2. Festuca perennis	<u>n</u>	25	Yes	FAC	_ Coli	umn Totals:	80	(A)	190 (B)
3. Lythrum sp.		25	Yes	OBL	-	Prevalence	Index = E	8/A =	2.38
4.					Нус	Irophytic Ve	getation Ir	dicators:	
5.					×	Dominance 7	Test is >50	%	
6.			-		×	Prevalence I	ndex is ≤3	.0 ¹	
7.						Morphologic			
8.				·	1_			on a separat	•
	Total Cover:	80 %			7 L	Problematic	Hydropnyt	c vegetation	1 (Explain)
Woody Vine Stratum					1 _{Ind}	licators of by	dric soil ar	d wotland h	nydrology must
1			-			present.	unc son ar	iu wellanu n	lydrology must
2	Total Cover:	%			Hvc	Irophytic			
Of Bono Charles dia Horb Chrotines			S	0/	Veg	etation	V 6	N - /	\sim
	20 %	OI RIOTIC (rust _	<u>%</u>	Pre	sent?	Yes •	No ($\frac{\mathcal{O}}{\mathcal{O}}$
Remarks:									

Profile Des	cription: (Describe to	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	2.5 YR 3/3	95 2.5 Y	R 4/8	5	<u>C</u>	<u>PL</u>	Clay loam	
				-				
	-			-				
¹ Type: C=C	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indiantaur. /Amulianhi	to all LDDs	laaa athamuia				lu diantaun f	or Problematic Hydric Soils: 3
Histoso	Indicators: (Applicable	e to all LRRS, un	Sandy Redo					fuck (A9) (LRR C)
	pipedon (A2)	<u> </u>	Stripped Ma	. ,				Muck (A10) (LRR B)
	listic (A3)	Ī	Loamy Muc				Reduce	ed Vertic (F18)
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matri	x (F2)		Red Pa	arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M		•		Other ((Explain in Remarks)
	uck (A9) (LRR D)	(444)	Redox Dark		, ,			
	ed Below Dark Surface Park Surface (A12)	(A11)	Depleted D Redox Dep		` '		3 Indicators	of hydrophytic vegetation and
🗀	Mucky Mineral (S1)		Vernal Poo		(ГО)		wetland	hydrology must be present.
	Gleyed Matrix (S4)	L		.0 (1 0)			unless	distributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil	Present? Yes No
Remarks:	-							
HYDROLO)GY							
	/drology Indicators:							
_	icators (minimum of or	ne required: che	ck all that ann	(v)			Secon	dary Indicators (2 or more required)
	Water (A1)	ic required, crie	Salt Crust					Vater Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Cru	,				ediment Deposits (B2) (Riverine)
l 🖳 🐧	ion (A3)		Aquatic In	, ,	es (B13)			rift Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriverir	ne)	Hydrogen					rainage Patterns (B10)
==	ent Deposits (B2) (Non		= -		eres along	Living Roo	= =	ry-Season Water Table (C2)
=	posits (B3) (Nonriveri				ced Iron (C	_	=	rayfish Burrows (C8)
1 ==	Soil Cracks (B6)	,	=		tion in Plov	•		aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		S	hallow Aquitard (D3)
Water-S	Stained Leaves (B9)	ĺ	Other (Exp	olain in R	emarks)		∑ F	AC-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	es O No 🖲	Depth (in	ches):				
Water Table	e Present? Ye	s No 🕞	Depth (in	ches):				
Saturation F	10	es O No 🖲	Depth (in	ches):		Wet	and Hudralagu	Present? Yes No
	pillary fringe) ecorded Data (stream g	nauge monitori	ng well aerial	nhotos r	revious ins			y Fresent? Tes W No
2 3301150 100	223.404 Data (Officially	J-1090, 111011110111	.gon, aonai	₋ , p		,	G. GIIGOIO.	
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:V	V82	
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	inge:S 29, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace			Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean Califo	ornia	Lat:39.7	728919		Long:-121.77101	13	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst, 3 to	8 percent slo	pes			NWI cla	assification	:Vernal poo	1	
Are climatic / hydrologic conditions on the site	typical for this	time of ye	ar? Yes (No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hydrolo	gy sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hydrolo	gy na	turally pro	oblematic?	(If ne	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attach	site map sl	nowing	samplii	ng point le	ocations, transe	ects, imp	oortant fea	atures,	etc.
Hydrophytic Vegetation Present? Yes	es 🕟 No								
	es No		Is	the Sampled	l Area				
Wetland Hydrology Present? Ye	es No			thin a Wetla		•	No 🔘		
Remarks: Feature appears to be human-	nade depressi	on							
VEGETATION	Δ	bsolute	Dominan	t Indicator	Dominance Test	workshee	f·		
Tree Stratum (Use scientific names.) 1.			Species?		Number of Dominion That Are OBL, FA	ant Specie	S	,	(A)
3.					Total Number of D Species Across A		3		(B)
4Sapling/Shrub Stratum	Total Cover:	%			Percent of Domina That Are OBL, FA			.7 %	(A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5				_	FAC species	40	x 3 =	120	
Herb Stratum	Total Cover:	%			FACU species	20	x 4 =	80	
1.Hordeum marinum gussoneanum		25	Yes	FAC	UPL species		x 5 =	0	(D)
2. Erodium botrys		15	Yes	FACU	Column Totals:	60	(A)	200	(B)
3.Festuca perennis		15	Yes	FAC	Prevalence	Index = B/	A =	3.33	
4. Leontodon saxatillis		5	No	FACU	Hydrophytic Veg	etation Inc	dicators:		
5.					X Dominance T				
6.					Prevalence In				
7					Morphologica	l Adaptatio	ns' (Provide n a separate	supporting sheet)	ng
8	T-1-1-0				- Problematic F)
Woody Vine Stratum	Total Cover:	60 %							
1					¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology r	nust
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum 40 %	% Cover of	of Biotic C	Crust	<u>%</u>	Vegetation Present?	Yes •	No C)	
Remarks: Large cobble present in bare	ground.								

SOIL Sampling Point: $\underline{W82}$

Profile De	escription: (Describe t	to the depth nee	ded to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)	
Depth	Matrix			Feature					
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-5	2.5 YR 3/3	95 2.5 YI	R 4/8	5	<u>C</u>	PL	Clay loam		
¹ Type: C=	-Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.	
Hydric Soi	I Indicators: (Applicable	e to all LRRs. unl	ess otherwise	noted.)			Indicators for P	Problematic Hydric Soils: 3	
	sol (A1)	, _	Sandy Redox					(A9) (LRR C)	
Histic	Epipedon (A2)		Stripped Ma	trix (S6)			2 cm Muck	(A10) (LRR B)	
Black	Histic (A3)		Loamy Muc	ky Miner	al (F1)			/ertic (F18)	
	gen Sulfide (A4)		Loamy Gley		. ,			t Material (TF2)	
	fied Layers (A5) (LRR C	;)	Depleted M	` '			Other (Exp	olain in Remarks)	
	Muck (A9) (LRR D)	(0.4.4)	Redox Dark		. ,				
	ted Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators of h	ydrophytic vegetation and	
	Dark Surface (A12) / Mucky Mineral (S1)	×	Redox Depi Vernal Pool		(F8)			drology must be present.	
	Gleyed Matrix (S4)		J Veillai Fooi	5 (1-9)			unless distr	ibuted or problematic	
	e Layer (if present):								
Type:	, ,								
ı –	(inches):						Hydric Soil Pre	sent? Yes No	
Remarks:	(.,,		
- tomanto									
HYDROL	.OGY								
Wetland H	Hydrology Indicators:								
Primary In	dicators (minimum of or	ne required; chec	k all that apply	y)				/ Indicators (2 or more required)	
Surfac	ce Water (A1)		Salt Crust	(B11)			Wate	r Marks (B1) (Riverine)	
High \	Water Table (A2)		Biotic Crus	st (B12)			Sedir	nent Deposits (B2) (Riverine)	
Satura	ation (A3)		Aquatic Inv	ertebrat/	es (B13)		Drift [Deposits (B3) (Riverine)	
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide C	Odor (C1)		Drain	age Patterns (B10)	
× Sedim	nent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	season Water Table (C2)	
Drift D	Deposits (B3) (Nonriver	ine)	Presence	of Reduc	ed Iron (C	4)	Crayf	ish Burrows (C8)	
Surfac	ce Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Satur	ation Visible on Aerial Imagery (C9)	
Inund	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)			ow Aquitard (D3)	
Water	r-Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC-	Neutral Test (D5)	
Field Obs	ervations:								
Surface W	/ater Present? Ye	es No 💿	Depth (inc	ches):					
Water Tab	ole Present? Ye	es No 💿	Depth (inc	ches):					
Saturation		es O No 💿	Depth (inc	ches):		Wetl	and Hydrology Pr	esent? Yes • No	
	capillary fringe) Recorded Data (stream	gauge, monitorin	g well, aerial r	ohotos n	revious ins			osciit: 165 G NO	
200011001	Data (Stroatt)	34490, momonii	5, aonai j	οιοο, μ	. 51.005 1116	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	aranabio.		
Remarks:									
i ivoilidino.									

Project/Site: The Valley's Edge		City/Cou	nty:Butte		San	npling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:V	V83	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 33, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): ridge	top		Local re	lief (concave,	convex, none):conc	ave	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	713619		Long:-121.76699	3	 Datui	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstand		,	No	\circ
			oblematic		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att							,	atures	etc
	·		Jampii	ing point it	Joanons, transc		portant rec		
Hydrophytic Vegetation Present?	Yes No	_							
Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No			the Sampled					
Remarks:	res 🕒		W	ithin a Wetla	nd? Yes	•	No (
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		nt Indicator	Dominance Test				
Tree Stratum (Use scientific names.) 1.	_3	% Cover	Species	? Status	Number of Domina That Are OBL, FA				(A)
2.					-	•	io. 2		(^)
3.					 Total Number of D Species Across Al 		2		(B)
4.					-		_		(5)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum								.0 /0	,,,,,
1					Prevalence Index				
2					OBL species	5	Multiply x 1 =	5 5	
3. 4.				_	FACW species	10	x 2 =	20	
5.					FAC species	50	x 3 =	150	
o	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		70			UPL species	10	x 5 =	0	
1.Hordeum marinum gussoneanum	<u>.</u>	30	Yes	FAC	Column Totals:	75	(A)	215	(B)
2.Festuca perennis		20	Yes	FAC			, ,	2.07	
3.Bromus hordeaceous		10	No	FACU	Prevalence I			2.87	
4.Deschampsia danthonioides		5	No	FACW	Hydrophytic Vego X Dominance To				
5. Lasthenia fremontii		5	No	OBL	× Prevalence In				
6. <i>Plagiobothrys stipitatus</i> 7.		3	No	FACW	Morphological			supportir	na
8.					data in Rer	marks or c	n a separate	sheet)	.9
	Total Cover:	75 %			Problematic H	ydrophytic	c Vegetation ¹	(Explain)
Woody Vine Stratum	rotar covor.	13 %							
1					¹ Indicators of hydr be present.	ic soil and	d wetland hyd	drology n	nust
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum25	5 % % Cover 6	of Biotic C	Crust	%	Present?	Yes 💿	No C		
Remarks:									

SOIL Sampling Point: $\underline{W83}$

Profile De	scription: (Describe	to the depth nee	ded to docui	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	% Col	or (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-4	5 YR 3/4	98 <u>2.5 Y</u>	R 4/8	2	C	M	loam	
	_							
							-	
								·
¹ Type: C=	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covere	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all I RRs uni	ass athorwise	noted)			Indicators for	Problematic Hydric Soils: 3
Histos		e to an Errivs, uni	Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)		Stripped Ma	, ,				k (A10) (LRR B)
	Histic (A3)		Loamy Muc	, ,				Vertic (F18)
Hydro	gen Sulfide (A4)		Loamy Gley	yed Matri	x (F2)		Red Pare	nt Material (TF2)
Stratifi	ed Layers (A5) (LRR C)	Depleted M	atrix (F3)		Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)		Redox Darl		. ,			
	ed Below Dark Surface	e (A11)	Depleted D		` ,		3 Indicators of I	nydrophytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			drology must be present.
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				ributed or problematic
	Gleyed Matrix (S4)							
	e Layer (if present):							
Type:du								
	inches):4						Hydric Soil Pro	esent? Yes No
Remarks:	Breccia composed of	f cemented vol	canic mudfle	ow				
HYDROL	OGY							
	lydrology Indicators:							
	dicators (minimum of o	no roquirod: oboo	ok all that appl)			Secondar	y Indicators (2 or more required)
	•	<u>ne requirea; chec</u>		-				er Marks (B1) (Riverine)
l ==	e Water (A1)	L	Salt Crust	` '				ment Deposits (B2) (Riverine)
l <u>□</u>	Vater Table (A2)	L	Biotic Crus		(D40)			. , , , , , , ,
l <u>—</u>	ation (A3)	L	Aquatic In					Deposits (B3) (Riverine)
l 🖃	Marks (B1) (Nonriveri	· '	Hydrogen		` '	Library Day	= =	nage Patterns (B10) Season Water Table (C2)
=	ent Deposits (B2) (Nor		=		eres along	-	, ,	` '
l <u>—</u>	eposits (B3) (Nonriver	ine)	=		ced Iron (C	,	=	fish Burrows (C8)
=	e Soil Cracks (B6)		=		tion in Plov	vea Solis (ration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	Thin Muck		` '			low Aquitard (D3)
	-Stained Leaves (B9)	L	Other (Exp	plain in R	emarks)		FAC	-Neutral Test (D5)
Field Obse		O O	5 (1					
		es No 💿	Depth (in					
Water Tab	le Present? You	es No 💿	Depth (in	ches):				
Saturation		es 🔘 No 💿	Depth (in	ches):		Wetl	and Hydrology P	resent? Yes No
	apillary fringe) Recorded Data (stream	gauge, monitorin	g well, aerial	photos, r	revious ins			resent: res (No (
2000110011		gg.,	J, aonai	- · · · · · · · · · · · · · · · · · · ·		r 000110),		
Remarks:								
incilialks.								

Project/Site: The Valley's Edge			City/Cour	ity:Butte		Sam	pling Date: 11	/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	oling Point:W	84	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conc	ave	Slop	e (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	725741		Long:-121.77779	1	 Datum	n:WGS 84	
Soil Map Unit Name: Redtough-Redsw	ale, 0 to 2 percen	t slopes			NWI cla	ssification:	—— Seasonal we	etland	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	- n in Remark	s.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" presen	t? Yes 💿	No 🔘	
	- =		oblematic?		eeded, explain any a	nswers in R	Remarks.)		
SUMMARY OF FINDINGS - Att							,	tures, et	C.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_	Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			thin a Wetla		•	No C		
Remarks:									
VEGETATION									
		bsolute	Dominan	t Indicator	Dominance Test	worksheet	:		_
<u>Tree Stratum</u> (Use scientific names.)			Species	Status	Number of Domina				
1				_	That Are OBL, FA	CW, or FAC	D: 2	(A)	
2				_	Total Number of D				
3					Species Across Al	l Strata:	2	(B)	
4		0.4			Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FAC	C: 100.	() % (A/B	5)
1.					Prevalence Index	workshee	t:		
2.					Total % Cove	r of:	Multiply		
3					OBL species		x 1 =	0	
4					FACW species	50	x 2 =	100	
5	Total Covers	0/			FAC species FACU species	35	x 3 = x 4 =	105	
Herb Stratum	Total Cover:	%			UPL species		x 4 = x 5 =	0	
1.Cyperus esculentus		35	Yes	FACW	Column Totals:	85	(A)		B)
2.Paspalum dilatatum		30	Yes	FAC	_ Column rotals.	63	(14)		٥,
3. Salix gooddingii		15	No	FACW	Prevalence I			2.41	
4. Populus fremontii		5	No	FAC	Hydrophytic Veg				
5					X Dominance ToX Prevalence In				
6					Morphologica			cupporting	
7					data in Re	marks or or	a separate s	sheet)	
8	Total Cover:	0.7			Problematic F	lydrophytic	Vegetation ¹ (Explain)	
Woody Vine Stratum	Total Cover.	85 %							
1					¹ Indicators of hyden be present.	ric soil and	wetland hyd	rology mus	it
2					-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	5 % Cover of	of Biotic C	Crust	%	Present?	Yes	No 🔘		
Remarks:									

SOIL Sampling Point: $\underline{W84}$

Profile Des	scription: (Describe t	to the depth nee	eded to docun	nent the	indicator	or confirn	n the absence of inc	dicators.)
Depth (inches)	Matrix	% Co		Feature	es Type ¹	Loc ²	Texture	Domorko
(inches)	Color (moist)		lor (moist)					Remarks
0-4	2.5 YR 3/3	95 2.5 Y	K 4/8		<u>C</u>	<u>PL</u>	Gravelly loam	
1								
'Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs un	less otherwise	noted \			Indicators for Pro	oblematic Hydric Soils: 3
Histose		e to all EKKs, ull	Sandy Redox				1 cm Muck (
	Epipedon (A2)		Stripped Ma	' '				A10) (LRR B)
	Histic (A3)		Loamy Muc	ky Miner	al (F1)		Reduced Ve	rtic (F18)
	gen Sulfide (A4)		Loamy Gley					Material (TF2)
	ed Layers (A5) (LRR C	;)	Depleted Ma		•		Other (Expla	in in Remarks)
	/luck (A9) (LRR D) ed Below Dark Surface	\(\(\lambda_11\)	Redox Dark Depleted Da		, ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Redox Depr		. ,		3 Indicators of hyd	drophytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		(10)		wetland hydro	ology must be present.
	Gleyed Matrix (S4)		_	` ,			unless distrib	uted or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Pres	ent? Yes No
Remarks:								
HYDROLO	nev							
_								
	ydrology Indicators: dicators (minimum of or	no roquirod: obo	ok all that apply	. ()			Secondary I	ndicators (2 or more required)
	e Water (A1)	<u>ne requirea, chec</u>						Marks (B1) (Riverine)
	` ,	L F	Salt Crust					ent Deposits (B2) (Riverine)
l <u> </u>	Vater Table (A2) tion (A3)	L T	Biotic Crus Aquatic Inv		tos (R13)			eposits (B3) (Riverine)
	Marks (B1) (Nonriveri	ne)	Hydrogen		, ,			ge Patterns (B10)
	ent Deposits (B2) (Nor	,	Oxidized R		` '	Livina Roo	=	ason Water Table (C2)
	eposits (B3) (Nonriver	′ ½	Presence		_	_	· · · =	h Burrows (C8)
l <u>=</u>	e Soil Cracks (B6)	ĺ	Recent Iro		`	,		ion Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface	(C7)		Shallov	v Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		∑ FAC-N	eutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es No 💿	Depth (inc	ches):				
Water Tabl	e Present? Ye	es O No 💿	Depth (inc	ches):				
Saturation		es O No 💿	Depth (inc	ches):		Wast	land Ukudaalaan Baa	and Vac A No O
	apillary fringe) ecorded Data (stream	gauge monitorin	na well aerial r	hotos r	revious ins		land Hydrology Pres	sent? Yes (•) No (
Describe K	coorded Data (Stream	gauge, monitorii	ig weii, aeiiai þ	, ιοιο ο , μ	A CVIOUS III	, podulis),	ii avaiiabis.	
Remarks:								
ixemans.								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	pling Date: 1	1/11/14		
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:	V85		
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 32, T 22N,	R 2E				
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ief (concave,	convex, none):conc	cave	Slo	pe (%):2		
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	725741		Long:-121.77779	Long:-121.777791 Datum:WGS 84				
Soil Map Unit Name: Redtough-Redsw		t slopes			NWI cla	assification	 :Vernal swa	ıle		
Are climatic / hydrologic conditions on the			ear? Yes	No (
			disturbed		"Normal Circumstan			No	\bigcirc	
			oblematic		eeded, explain any a					
SUMMARY OF FINDINGS - Att				`	, ,		,	atures.	etc.	
	·			9 po		, _[
Hydrophytic Vegetation Present? Hydric Soil Present?	_		la la	the Comple	I A ***					
Wetland Hydrology Present?				the Sampled			No O			
Remarks:	100 ()		VV	itiiiii a vvetia	iiu: ies		NO C			
VEGETATION										
		Absolute	Dominar	nt Indicator	Dominance Test	workshee	t:			
<u>Tree Stratum</u> (Use scientific names.)				? Status	Number of Domin	ant Specie	S			
1					That Are OBL, FA	CW, or FA	C: 1		(A)	
3					Total Number of D Species Across A		1		(B)	
4					Percent of Domin	ant Specie	3			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 %	(A/B)	
1.					Prevalence Index	x workshe	et:			
2.				-	Total % Cove	er of:	Multipl	y by:		
3.					OBL species		x 1 =	0		
4.					FACW species		x 2 =	0		
5					FAC species	65	x 3 =	195		
Herb Stratum	Total Cover:	%			FACU species	15	x 4 =	60		
1.Festuca perennis		65	Yes	FAC	UPL species		x 5 =	0	(D)	
2. Leontodon saxatillis		15	No	FACU	Column Totals:	80	(A)	255	(B)	
3.					Prevalence	Index = B/	A =	3.19		
4.					Hydrophytic Veg	etation In	dicators:	-		
5.					X Dominance T					
6.					Prevalence Ir					
7				_	Morphologica	al Adaptation	ns' (Provide n a separate	supportir	ng	
8					- Problematic I)	
Woody Vine Stratum	Total Cover:	80 %				, , ,	J	` ' '	,	
12.					¹ Indicators of hyd be present.	lric soil and	d wetland hy	drology n	nust	
<u></u>	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum20	0 % Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes	No C	<u>'</u>		
Remarks:					•					

SOIL Sampling Point: $\underline{W85}$

Profile De	scription: (Describe	to the depth ne	eded to docun	nent the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			c Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	5 YR 3/3	80 <u>2.5 Y</u>	TR 4/8	5	C	PL	Gravelly clay loam	
		2.5 Y	TR 4/8	15	С	M		
		· 						
¹ Type: C=	Concentration, D=Depl	letion, RM=Redu	uced Matrix. CS	S=Cover	ed or Coate	ed Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. ur	less otherwise	noted.)			Indicators for	Problematic Hydric Soils: 3
	ol (A1)		Sandy Redox					k (A9) (LRR C)
_	Epipedon (A2)		Stripped Ma	` '				k (A10) (LRR B)
Black	Histic (A3)		Loamy Muc	ky Mine	ral (F1)			Vertic (F18)
	gen Sulfide (A4)		Loamy Gley	ed Matr	ix (F2)			nt Material (TF2)
	ed Layers (A5) (LRR C	;)	Depleted Ma	,	,		Other (Ex	plain in Remarks)
	Muck (A9) (LRR D)		Redox Dark		. ,			
	ted Below Dark Surface	e (A11)	Depleted Da		` '		3 Indicators of I	nydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Depr Vernal Pool		(F8)			drology must be present.
	Gleyed Matrix (S4)	L	vernai Pool	s (F9)			unless dist	ributed or problematic
	e Layer (if present):							
Type:	z zayor (ii procont).							
ı '' —	inches):		-				Hydric Soil Pro	esent? Yes No
Remarks:							Tiyunc 3011 Ti	esent: les 🕒 No 🖰
Remarks.								
HYDROL	OGY							
Wetland H	lydrology Indicators:							
	dicators (minimum of o	ne required: che	ck all that apply	v)			Secondar	ry Indicators (2 or more required)
	ce Water (A1)		Salt Crust					er Marks (B1) (Riverine)
	Vater Table (A2)		Biotic Crus	` '			Sedi	ment Deposits (B2) (Riverine)
l <u>□</u>	ation (A3)		Aquatic Inv		tes (B13)		<u></u>	Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
l <u>=</u>	ent Deposits (B2) (Nor		<u> </u>		eres along	Living Ro	= =	Season Water Table (C2)
=	eposits (B3) (Nonriver				ced Iron (C	-		fish Burrows (C8)
==	e Soil Cracks (B6)		=		tion in Plov	,		ration Visible on Aerial Imagery (C9)
	ation Visible on Aerial I	magery (B7)	Thin Muck			,		ow Aquitard (D3)
=	-Stained Leaves (B9)		Other (Exp		` '			Neutral Test (D5)
Field Obse								. ,
		es No 💽	Depth (inc	ches):				
		es No (•						
Saturation	_							
	apillary fringe)	es No 🖲	Depth (inc	iles)		Wetl	land Hydrology P	resent? Yes No
	Recorded Data (stream	gauge, monitori	ng well, aerial p	ohotos, p	previous ins	pections),	, if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:\	W86	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ief (concave,	convex, none):conc	ave	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724947		Long:-121.77762	25	Datu	ım:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Vernal swa	ale	
poplicant/Owner: B. Brouhard State: CA Samp avestigator(s): D. Machck, E. Gregg andform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave bursegion (LRR): C. Mediterranean California Lat: 39.724947 Long: 121.777625 NVII classification: V stre climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks re Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present re Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Re SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, import Hydrophytic Vegetation Present? Yes No Substituted Soil Present Soil Presen		·ks.)							
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	l? Are	"Normal Circumstan	ces" prese	nt? Yes	No (\supset
					eeded, explain any a	nswers in	Remarks.)		
					ocations, transe	ects, imp	oortant fe	atures, e	etc.
Hydrophytic Vegetation Present?	Yes 🕟 No				· · · · · · · · · · · · · · · · · · ·				
		_	Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			_		•	No 🔘		
Remarks:			<u>'</u>						
VEGETATION									
VEGETATION									
Tree Stratum (Use scientific names.)									
1.	_							<u>)</u> (A	A)
2.					Total Number of F	Ominant			
3.							3	B (E	3)
4					Percent of Domina	ant Specie	s		
Capling/Shrub Stratum	Total Cover:	%						i.7 % (A	A/B)
					Prevalence Index	workshe	et·		
					_		Multipl	ly by:	
				_	OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5.					FAC species	40	x 3 =	120	
Liant Chrateins	Total Cover:	%			,	35	x 4 =	140	
		20	Vas	EAC			x 5 =	0	
				_	Column Totals:	75	(A)	260	(B)
	<u> </u>			_	Prevalence	Index = B/	'A =	3.47	
					Hydrophytic Veg	etation In	dicators:		
			-		X Dominance T	est is >50%	%		
6.									
7.									g
8.							•	•	
Woody Vino Stratum	Total Cover:	75 %			i iobicinatic i	туагорпун	vegetation	(Explain)	
					¹ Indicators of hyd	ric soil and	d wetland hy	drology m	ust
							,	0,	
	Total Cover:	%			Hydrophytic				
% Bara Ground in Harb Stratum 24		of Riotic (Prijet	0/-		Vos 📵	No C	,	
		טווטווט כ	Jiuol	70	FICSCIIL	162 🗨	140	/	
Nellaiks.									

Profile Des	scription: (Describe t	o the depth nee	eded to docui	ment the i	ndicator	or confirm	n the absence of i	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	2.5 Y	R 4/8				Gravelly clay loam	
1							. 2	
'Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs un	less otherwise	noted)			Indicators for I	Problematic Hydric Soils: 3
Histose			Sandy Redo					k (A9) (LRR C)
l <u>—</u>	Epipedon (A2)		Stripped Ma	` '				k (A10) (LRR B)
Black I	Histic (A3)		Loamy Muc	ky Minera	I (F1)			Vertic (F18)
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)			nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	` ,			Other (Exp	olain in Remarks)
	Muck (A9) (LRR D)		Redox Dark		. ,			
ı Ш ·	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)	L	Redox Dep Vernal Poo		F8)			drology must be present.
	Gleyed Matrix (S4)	L	_ vemairoo	15 (1-9)			unless dist	ributed or problematic
	Layer (if present):							
Type:	, , , ,							
Depth (i	inches):						Hydric Soil Pre	esent? Yes No
Remarks:	<u> </u>							
HYDROL	00V							
	ydrology Indicators:	a required, abo	als all that anal				Secondar	y Indicators (2 or more required)
	dicators (minimum of or	ie requirea, cried						er Marks (B1) (Riverine)
l ==	e Water (A1)	Į.	Salt Crust	` '				ment Deposits (B2) (Riverine)
l 🖳 🧻	Vater Table (A2)	Į r	Biotic Crus		- (D40)			Deposits (B3) (Riverine)
l 🖳	tion (A3)	\	Aquatic In					, , , , ,
=	Marks (B1) (Nonrivering		Hydrogen		` '	Listan Da	= -	nage Patterns (B10) Season Water Table (C2)
=	ent Deposits (B2) (Non		Oxidized F		_	_		` ,
🖳	eposits (B3) (Nonriver i	ine) [Presence		`	′		fish Burrows (C8)
=	e Soil Cracks (B6)	 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	Recent Iro			rea sons (_	ration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial In Stained Leaves (B9)	liagery (b/) [Other (Exp	,	,			ow Aquitard (D3) Neutral Test (D5)
Field Obse	. ,	L	Other (Ext	Dialii III Ke	illaiks)			riveutiai Test (D3)
		es No 💽	Depth (in	ches).				
Water Tabl		es No (•						
Saturation								
	apillary fringe)	es O No 🗨	Depth (in			Wetl	land Hydrology P	resent? Yes No
Describe R	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:W	V87
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 4, T 21N, R	2E		
Landform (hillslope, terrace, etc.): fan te	rrace		Local rel	ief (concave,	convex, none):conc	ave	Slop	pe (%):1.5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	710812		Long:-121.76265	1	 Datur	m:WGS 84
Soil Map Unit Name: Clearhayes-Hams		ent slor	oes		NWI cla	ssification	 :Vernal swa	ale
Are climatic / hydrologic conditions on the				No ((If no, explain	ı in Remar	'ks.)	
			disturbed		"Normal Circumstand			No 🔘
	-		oblematic		eeded, explain any a	•		
SUMMARY OF FINDINGS - Att							,	atures etc
	·		Jampii	ng ponit it	Joanons, transc	.013, 1111	Jortant ree	
Hydrophytic Vegetation Present?	Yes No	_						
Hydric Soil Present?	Yes No	_		the Sampled				
Wetland Hydrology Present? Remarks:	Yes No		Wi	ithin a Wetla	nd? Yes	•	No (
VEGETATION								
Tree Stratum (Use scientific names.)		Absolute % Cover		nt Indicator ? Status	Dominance Test			
1.		0010.	<u> </u>	<u> </u>	Number of Domina That Are OBL, FA			(A)
2.					-		_	
3.					 Total Number of D Species Across Al 		2	(B)
4.					- ' - Percent of Domina		_	
	Total Cover:	%		_	That Are OBL, FA).0 % (A/B)
Sapling/Shrub Stratum					Prevalence Index	worksho	ot:	
1. 2.					Total % Cover		Multiply	v hv
3.				_	OBL species	5	x 1 =	5
4.				_	FACW species	10	x 2 =	20
5.					FAC species	55	x 3 =	165
	Total Cover:	%			FACU species	15	x 4 =	60
Herb Stratum					UPL species		x 5 =	0
1. Eryngium castrense		5	No	OBL	Column Totals:	85	(A)	250 (B)
2 Festuca perennis		35	Yes	FAC	Prevalence I	ndov – P	'Λ —	2.94
3. Juncus bufonius		10	No	FACW	Hydrophytic Vege			2.94
4. Leontodon saxatillis		5	No	FACU	X Dominance Te			
5.Bromus hordeaceus	-	10	No Yes	FACU FAC	× Prevalence In			
6. <i>Hordeum marinum ssp. gussoned</i> 7.	<u>- inum</u>	20	168	- FAC	Morphological			supporting
8.					data in Rer	marks or o	n a separate	sheet)
·-	Total Cover:	85 %		_	- Problematic H	lydrophytic	C Vegetation ¹	(Explain)
Woody Vine Stratum		65 %						
1					Indicators of hydrobe present.	ic soil and	d wetland hyd	drology must
2					-			
	Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum15	5 % % Cover o	of Biotic C	Crust	%	Present?	Yes 💿	No 🔘)
Remarks:								

SOIL Sampling Point: $\underline{W87}$

Profile De	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	_Loc ²	Texture	Remarks
0-6	5 YR 3/3	95 2.5 Y	ZR 4/8	5	C	PL	Cobbly clay loam	
	_							
								_
	_	· ——						-
¹ Type: C=	Concentration, D=Depl	letion, RM=Red	uced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicatoro, (Applicabl	o to all I BBo	loop othomuica	noted \			Indicators for	Problematic Hydric Soils: 3
	Indicators: (Applicable of (A1)	e to all LRRS, ul	Sandy Redo					ck (A9) (LRR C)
_	Epipedon (A2)	Ļ	Stripped Ma	` '				ck (A10) (LRR B)
	Histic (A3)	-	Loamy Muc	. ,				Vertic (F18)
	gen Sulfide (A4)	Ī	Loamy Gle	-	. ,			ent Material (TF2)
Stratifi	ed Layers (A5) (LRR C	>)	Depleted M	latrix (F3)			plain in Remarks)
1 cm N	Muck (A9) (LRR D)		Redox Darl	k Surface	(F6)			
	ted Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			/drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	ls (F9)				tributed or problematic
	Gleyed Matrix (S4)						diffico dio	induced of problematio
	e Layer (if present):							
Type:			-					
Depth (inches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROL	OGY							
	lydrology Indicators:						Sacanda	ny Indiantara (2 or more required)
	dicators (minimum of o	ne requirea; che						ry Indicators (2 or more required) ter Marks (B1) (Riverine)
	ce Water (A1)		Salt Crust	` ,				, , ,
l <u>□</u>	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
🖳	ation (A3)		Aquatic In					Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		, ,		= =	nage Patterns (B10)
=	ent Deposits (B2) (Nor		=		eres along	-	, ,	Season Water Table (C2)
l <u>=</u>	eposits (B3) (Nonriver	rine)	=		ced Iron (C	,		rfish Burrows (C8)
=	ce Soil Cracks (B6)	(=-)	_		tion in Plov	ved Soils (uration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	Thin Muck		` '			llow Aquitard (D3)
	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse								
		es O No 🤄	Depth (in	ches):				
Water Tab	le Present? You	es 🦳 No 🧿	Depth (in	ches):				
Saturation		es O No 🤄	Depth (in	ches):		\\\	land Usedralams D	Propert 2 Voc & No O
	capillary fringe)	gauga manitari	ng woll porial	nhotos r	rovious ins		land Hydrology P	Present? Yes (•) No (
Describe R	Recorded Data (stream	yauye, momor	ng well, aelial	ριισισδ, β	n evious ins	ρροσιίστιδ),	ıı avallabl e .	
D								
Remarks:								

Project/Site: The Valley's Edge			City/Cour	ty:Butte		Sam	npling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point: \overline{V}	V88
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 4, T 21N, R	2E		
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%):1.5
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	711146		Long:-121.76158	37	Datu	m:WGS 84
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	cent slop	oes		NWI cla	ssification	:Vernal swa	ıle
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	·ks.)	
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If ne	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point le	ocations, transe	ects, imp	oortant fea	atures, etc.
Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes No		Is	the Sampled	d Area			
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No 🔘	
Remarks:								
VEGETATION								
VEGETATION		Absolute	Dominon	t Indicator	Dominance Test	workshoo	4.	
<u>Tree Stratum</u> (Use scientific names.)				Status	Number of Domina			
1.					That Are OBL, FA			(A)
2.					Total Number of D)ominant		
3					Species Across Al		2	(B)
4					Percent of Domina	ant Specie	S	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100).0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.					Total % Cove	r of:	Multiply	y by:
3.					OBL species	30	x 1 =	30
4					FACW species	15	x 2 =	30
5				_	FAC species	30	x 3 =	90
Herb Stratum	Total Cover:	%			FACU species	10	x 4 =	40
1.Hordeum marinum ssp. gussoned	าทบท	30	Yes	OBL	UPL species		x 5 =	0
2. Festuca perennis		30	Yes	FAC	Column Totals:	85	(A)	190 (B)
3. Juncus bufonius		10	No	FACW	Prevalence I	ndex = B/	'A =	2.24
4. Lythrum sp.		5	No	FACW	Hydrophytic Veg	etation In	dicators:	
5.Bromus hordeaceus		10	No	FACU	X Dominance T	est is >50%	%	
6.					× Prevalence In			
7.					Morphologica		ons¹ (Provide on a separate	
8.					- Problematic H		•	,
Woody Vino Stratum	Total Cover:	85 %			Troblematic r	туагорттупс	vegetation	(Explain)
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil and	d wetland hy	drology must
1. 2.					be present.		,	0,
	Total Cover:	%			Hydrophytic			
% Bare Ground in Herb Stratum15	5 % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No C)
Remarks:								

SOIL Sampling Point: $\underline{W88}$

Profile De	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	_Loc ²	Texture	Remarks
0-6	5 YR 3/3	95 2.5 Y	ZR 4/8	5	C	PL	Cobbly clay loam	
	_							
								_
	_	· ——						-
¹ Type: C=	Concentration, D=Depl	letion, RM=Red	uced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	Location: PL=Pore Lining, M=Matrix.
Hudria Cail	Indicatoro, (Applicabl	o to all I BBo	loop othomuica	noted \			Indicators for	Problematic Hydric Soils: 3
	Indicators: (Applicable of (A1)	e to all LRRS, ul	Sandy Redo					ck (A9) (LRR C)
_	Epipedon (A2)	Ļ	Stripped Ma	` '				ck (A10) (LRR B)
	Histic (A3)	-	Loamy Muc	. ,				Vertic (F18)
	gen Sulfide (A4)	Ī	Loamy Gle	-	. ,			ent Material (TF2)
Stratifi	ed Layers (A5) (LRR C	>)	Depleted M	latrix (F3)			plain in Remarks)
1 cm N	Muck (A9) (LRR D)		Redox Darl	k Surface	(F6)			
	ted Below Dark Surface	e (A11) [Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Dark Surface (A12)		Redox Dep		(F8)			/drology must be present.
	Mucky Mineral (S1)	L	Vernal Poo	ls (F9)				tributed or problematic
	Gleyed Matrix (S4)						diffico dio	induced of problematio
	e Layer (if present):							
Type:			-					
Depth (inches):						Hydric Soil Pr	resent? Yes No
Remarks:								
HYDROL	OGY							
	lydrology Indicators:						Sacanda	ny Indiantara (2 or more required)
	dicators (minimum of o	ne requirea; che						ry Indicators (2 or more required) ter Marks (B1) (Riverine)
	ce Water (A1)		Salt Crust	` ,				, , ,
l <u>□</u>	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)
🖳	ation (A3)		Aquatic In					Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		, ,		= =	nage Patterns (B10)
=	ent Deposits (B2) (Nor		=		eres along	-	, ,	Season Water Table (C2)
l <u>=</u>	eposits (B3) (Nonriver	rine)	=		ced Iron (C	,		rfish Burrows (C8)
=	ce Soil Cracks (B6)	(=-)	_		tion in Plov	ved Soils (uration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	Thin Muck		` '			llow Aquitard (D3)
	-Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obse								
		es O No 🤄	Depth (in	ches):				
Water Tab	le Present? You	es 🦳 No 🧿	Depth (in	ches):				
Saturation		es O No 🤄	Depth (in	ches):		\\\	land Usedralams D	Propert 2 Voc & No O
	capillary fringe)	gauga manitari	ng woll porial	nhotos r	rovious ins		land Hydrology P	Present? Yes (•) No (
Describe R	Recorded Data (stream	yauye, momor	ng well, aelial	ριισισδ, β	n evious ins	ρροσιίστιδ),	ıı avallabl e .	
D								
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		Sam	pling Date: 1	1/11/14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	789
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge: <u>S3</u> 2, T 32N, R	2E		
Landform (hillslope, terrace, etc.): terrac	e		Local re	lief (concave,	convex, none):conc	ave	Slop	oe (%):3.5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	731943		Long:-121.76220)4	Datun	n:WGS 84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	Vernal pool	l
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)	
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	d? Are	"Normal Circumstand	ces" presei	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	drology na	turally pro	oblematic	? (If ne	eeded, explain any a	nswers in I	Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ing point le	ocations, transe	ects, imp	ortant fea	itures, etc
Hydrophytic Vegetation Present?	Yes No							
Hydric Soil Present?	Yes No		Is	the Sampled	l Area			
Wetland Hydrology Present? Remarks:	Yes No		w	ithin a Wetla	nd? Yes	•	No 🔘	
VECETATION								
VEGETATION		Nh a a li ita	Damina	-t la-lit	Daminana Tast		L-	
Tree Stratum (Use scientific names.) 1		Absolute % Cover		nt Indicator ? Status	Number of Domina That Are OBL, FA	ant Specie	3	(A)
2. 3.					- Total Number of D Species Across Al		3	(B)
4Sapling/Shrub Stratum	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 % (A/B)
1.					Prevalence Index	workshe	et:	
2.			-		Total % Cove	r of:	Multiply	by:
3.					OBL species	15	x 1 =	15
4					FACW species		x 2 =	0
5					FAC species	55	x 3 =	165
Herb Stratum	Total Cover:	%			FACU species UPL species		x 4 =	0
1.Hordeum marinum gussoneanum	ļ	30	Yes	FAC		70	x 5 =	0 190 (P
2.Festuca perennis	<u> </u>	25	Yes	FAC	Column Totals:	70	(A)	180 (B
3. Lythrum sp.		15	Yes	OBL	Prevalence I			2.57
4.					Hydrophytic Veg	etation Inc	licators:	
5.					X Dominance To			
6					× Prevalence In			
7				_	Morphological data in Rei	i Adaptatio marks or o	ns* (Provide s n a separate :	supporting sheet)
8	Total Cover:	70 %			- Problematic H			
Woody Vine Stratum 1					¹ Indicators of hydronic be present.	ric soil and	l wetland hyd	Irology must
2	Total Cover:	%			Hydrophytic			
	% Cover	of Biotic C	Crust	<u>%</u>	Vegetation Present?	Yes •	No 🔿	
Remarks:								

Profile Des	cription: (Describe t	o the depth ne	eded to docu	ment the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		olor (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 3/3	90 2.5	YR 4/8	10	<u>C</u>	PL	Clay loam	gravel and cobble present
¹ Type: C=C	Concentration, D=Deple	etion, RM=Red	uced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all I RRs u	nless otherwise	noted)			Indicators	for Problematic Hydric Soils: 3
Histoso			Sandy Redo					Muck (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,				Muck (A10) (LRR B)
	Histic (A3)	ĺ	Loamy Mud	ky Miner	al (F1)		Reduc	ced Vertic (F18)
	en Sulfide (A4)		Loamy Gle					arent Material (TF2)
l	ed Layers (A5) (LRR C)	Depleted M				Other	(Explain in Remarks)
l	luck (A9) (LRR D)	(044)	Redox Darl		` '			
I Ш .	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D Redox Dep		. ,		3 Indicators	of hydrophytic vegetation and
l	Mucky Mineral (S1)	l I	X Vernal Poo		(10)		wetland	d hydrology must be present.
	Gleyed Matrix (S4)	l	<u> </u>	(. 0)			unless	distributed or problematic
Restrictive	Layer (if present):							
Type: ha	ardpan							
Depth (ir	nches):4		_				Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	OGY							
	ydrology Indicators:							
1	icators (minimum of or	ne required: ch	eck all that ann	lv)			Secor	ndary Indicators (2 or more required)
	e Water (A1)	ic required, em	Salt Crust					Water Marks (B1) (Riverine)
l 🖳	ater Table (A2)		Biotic Cru	` '				Sediment Deposits (B2) (Riverine)
	tion (A3)		Aquatic In	, ,	tes (R13)			Prift Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri i	ne)	Hydrogen					Prainage Patterns (B10)
1 ==	ent Deposits (B2) (Non		= ' '		eres along	Living Roo	= =	Ory-Season Water Table (C2)
==	eposits (B3) (Nonriver i	•			ced Iron (C	_	` ' 🖳	Crayfish Burrows (C8)
1 ==	e Soil Cracks (B6)	-,			tion in Plov			Saturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			,	· 😐	Shallow Aquitard (D3)
	Stained Leaves (B9)	0 , (,	Other (Ex		` '			AC-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	s No (Depth (in	ches):				
Water Table	e Present? Ye	es No (Depth (in	ches):				
Saturation F		es O No (Depth (in	iches):		Wetl	and Hydrolog	y Present? Yes • No
	apillary fringe) ecorded Data (stream	gauge, monitor	ing well. aerial	photos. r	revious ins			y 1103cm: 165 W
	Zata (olioani)	J	J 5, Gonal	, , ,	2000 1110	,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	ty:Butte		Sam	pling Date:	11-11-14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point: \	W 90	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 33, T 22N, 1	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local rel	ef (concave,	convex, none):sligh	tly concar	ve Slo	pe (%):3.5	5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	721514		Long:-121.75800)6	 Datu	m:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification:	Vernal poo	ol	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explair	n in Remarl	ks.)		
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" preser	nt? Yes 💿	No (\circ
	=		oblematic?		eeded, explain any a	nswers in F	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	ortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			thin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
Troc Stratum (Hoc coientific names)		Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.) 1.	_3	% Cover	Species	Status Status	Number of Domina That Are OBL, FA			()	A)
2.					_		0. 3	()	٦)
3.					 Total Number of D Species Across Al 		3	(F	B)
4.					-				-,
	Total Cover:	%			Percent of Domina That Are OBL, FA).0 % (A	A/B)
Sapling/Shrub Stratum					Prevalence Index	worksho			
1. 2.				_	Total % Cove		ر. Multipl	v hv	
3.				-	OBL species	1 01.	x 1 =	0	
4.					FACW species	40	x 2 =	80	
5.					FAC species	25	x 3 =	75	
	Total Cover:	%			FACU species	15	x 4 =	60	
Herb Stratum		• 0	**		UPL species		x 5 =	0	
1 Psilocarphus brevissimus		20	Yes	FACW	Column Totals:	80	(A)	215	(B)
2.Deschampsia danthonioides 3.Erodium botrys		20 15	Yes No	FACU	Prevalence I	ndex = B/	A =	2.69	
4. Hordeum marinum ssp. gussoned	 anum	25	Yes	FACU FAC	Hydrophytic Veg	etation Inc	licators:		
5.	-				X Dominance T	est is >50%	, 6		
6.					× Prevalence In	dex is ≤3.0)1		
7.					Morphologica	l Adaptation	ns¹ (Provide n a separate	supporting	g
8.					- Problematic H			,	
Woody Vine Stratum	Total Cover:	80 %			i robiematio i	тусторттупо	vegetation	(Explain)	
1.					¹ Indicators of hyd	ric soil and	wetland hy	drology m	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum20	0 % Cover o	of Biotic C	Crust	%_	Vegetation Present?	Yes •	No C)	
Remarks:									

SOIL Sampling Point: \underline{W} 90

Profile Des	cription: (Describe to	o the depth n	eeded to docui	ment the	indicator	or confirm	n the absence of i	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u> </u>	color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3	85 2.5	YR 4/8	15	C	<u>PL</u>	clay loam	cobbles and gravel present
	·							
¹ Type: C=C	Concentration, D=Deple	etion, RM=Red	duced Matrix. C	S=Cover	ed or Coate	ed Sand Gr	rains 2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	to all LRRs, ι	ınless otherwise	noted.)			Indicators for I	Problematic Hydric Soils: ³
Histoso		·	Sandy Redo					k (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma	, ,			2 cm Muc	k (A10) (LRR B)
	listic (A3)		Loamy Mud	-	, ,			Vertic (F18)
	en Sulfide (A4)		Loamy Gley				_	nt Material (TF2)
	ed Layers (A5) (LRR C))	Depleted M				U Other (Exp	plain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(Δ11)	Redox Dark Depleted D		. ,			
	Park Surface (A12)	(Δ11)	Redox Dep		, ,		3 Indicators of h	nydrophytic vegetation and
	Mucky Mineral (S1)		✓ Vernal Pool		(1 0)		wetland hy	drology must be present.
	Gleyed Matrix (S4)						unless dist	ributed or problematic
Restrictive	Layer (if present):							
Type:du	ripan							
Depth (ir	nches):2		_				Hydric Soil Pre	esent? Yes No
Remarks: H	Iardpan visible at su	rface in man	y areas surrou	ınding tl	his data po	oint. Soil	on top of mound	ds were slightly deeper than in
S	wale like features; h	owever, they	had similar o	haracte	ristics.			
HYDROLO								
_	/drology Indicators:			,			Casandar	u. Indicatora (2 or more required)
	icators (minimum of on	ie required; ch		-				y Indicators (2 or more required)
=	e Water (A1)		Salt Crust	` '				er Marks (B1) (Riverine)
_ `	ater Table (A2)		Biotic Crus		(5.40)			ment Deposits (B2) (Riverine)
	ion (A3)	,	Aquatic In					Deposits (B3) (Riverine)
	Marks (B1) (Nonriverin		Hydrogen		` '	Listan Dan	=	nage Patterns (B10) Season Water Table (C2)
=	ent Deposits (B2) (Non				eres along ced Iron (C	•		,
	eposits (B3) (Nonriveri e Soil Cracks (B6)	ne)			tion in Plov	,		fish Burrows (C8) ration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	2220n/ (B7)	Thin Muck			veu solis (t	· <u>—</u>	ow Aquitard (D3)
	Stained Leaves (B9)	lagely (b1)	Other (Exp					-Neutral Test (D5)
Field Obse			Other (Ex	JIAIII III IN	emarks)			-Neutral Test (D3)
		s No (Depth (in	ches).				
Water Table		s No (′ —				
Saturation F				· —				
	pillary fringe)	s No (• Deptii (iii			Wetla	and Hydrology P	resent? Yes No
Describe Re	ecorded Data (stream of	gauge, monito	ring well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:							-	

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date:_	11-11-14	ļ
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:	W 91	
Investigator(s):D. Machek, E. Gregg			Section,	Township, Ra	inge:S 33, T 22N, 1	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	2		Local rel	lief (concave,	convex, none):conc	ave	Slo	pe (%):3.:	5
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	722961		Long:-121.75831	.0	 Datu	ım:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	ssification	: Vernal sw	ale	
Are climatic / hydrologic conditions on the	1	•	ear? Yes	No ((If no, explair	n in Remar	ks.)		
			disturbed		"Normal Circumstand			No (\circ
			oblematic		eeded, explain any a	·		,	
							,	0411400	242
SUMMARY OF FINDINGS - Atta	ach site map si	nowing	Sampii	ing point i	ocations, transe	ects, imp	ortant le	atures,	etc.
Hydrophytic Vegetation Present?	_								
Hydric Soil Present?	_		Is	the Sample					
Wetland Hydrology Present? Remarks:	Yes No		w	ithin a Wetla	nd? Yes	•	No O		
Tromaine.									
VEGETATION									
		Absolute	Dominar	nt Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)	_	% Cover	Species	? Status	Number of Domina	ant Specie	S		
1					That Are OBL, FA	CW, or FA	C: 2	. ((A)
2				_	Total Number of D				
3					Species Across Al	l Strata:	2	((B)
4		0/			Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	0.0 %	A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3					OBL species		x 1 =	0	
4					FACW species	5	x 2 =	10	
5					FAC species	65	x 3 =	195	
Herb Stratum	Total Cover:	%			FACU species UPL species	20	x 4 =	80	
1.Festuca perennis		30	Yes	FAC		0.0	x 5 =	0	(D)
2.Hordeum marinum ssp. gussonea	 num	35	Yes	FAC	Column Totals:	90	(A)	285	(B)
3. Erodium botrys		15	No	FACU	Prevalence I	ndex = B/	A =	3.17	
4.Blennosperma nanum		5	No	FACW	Hydrophytic Veg	etation Inc	dicators:		
5.Bromus hordeaceous		5	No	FACU	X Dominance T				
6.					Prevalence In				
7					Morphologica	l Adaptatio marks or o	ns' (Provide n a separate	supportin sheet)	ig
8					- Problematic H)
Woody Vine Stratum	Total Cover:	90 %					Ü	` ' '	
1					¹ Indicators of hyd	ric soil and	d wetland hy	drology n	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum10	% Cover	of Biotic C	Crust	%	Vegetation Present?	Yes •	No C)	
Remarks:					ı				

Profile Des	cription: (Describe t	o the depth nee	ded to docur	nent the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			c Feature				
(inches)	Color (moist)		or (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3	95 <u>2.5 Y</u>	R 4/8	5	<u>C</u>	<u>PL</u>	clay loam	cobbles and gravel present
								-
¹ Type: C=C	concentration, D=Deple	etion, RM=Redu	ced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mu	ck (A10) (LRR B)
	istic (A3)		Loamy Muc	•	, ,			Vertic (F18)
	en Sulfide (A4)		Loamy Gley				=	ent Material (TF2)
	d Layers (A5) (LRR C)	Depleted M				Other (Ex	xplain in Remarks)
	uck (A9) (LRR D) d Below Dark Surface	\(\(\Lambda_{11}\)	Redox Dark Depleted Dark		. ,			
	ark Surface (A12)	(ATT)	Redox Dep		, ,		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		(1 0)		wetland h	drology must be present.
	Gleyed Matrix (S4)	_	_	` ,			unless dis	tributed or problematic
Restrictive	Layer (if present):							
Type:dui	ripan							
Depth (in	iches):2						Hydric Soil Pr	resent? Yes No
Remarks: H	lardpan visible at su	ırface in many	areas surrou	nding t	his data po	oint. Soil	on top of moun	ds were slightly deeper than in
S	wale like features; h	nowever, they l	nad similar c	haracte	ristics.			
HYDROLO)GY							
Wetland Hy	drology Indicators:							
_	cators (minimum of or	ne required: chec	k all that appl	v)			Seconda	ry Indicators (2 or more required)
	Water (A1)	<u>.o .oquou, oo</u>	Salt Crust					ter Marks (B1) (Riverine)
	ater Table (A2)	L [Biotic Crus	` '				iment Deposits (B2) (Riverine)
Saturati	, ,	L [Aquatic In	. ,	es (B13)			Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri i	ne)	Hydrogen					nage Patterns (B10)
	nt Deposits (B2) (Non	·	Oxidized F	Rhizosph	eres along	Living Roo		Season Water Table (C2)
	posits (B3) (Nonriveri		Presence	of Reduc	ced Iron (C	4)	Cray	fish Burrows (C8)
Surface	Soil Cracks (B6)	Ī	Recent Iro	n Reduc	tion in Plov	ved Soils (C6) Sati	uration Visible on Aerial Imagery (C9)
Inundat	ion Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Sha	llow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in R	emarks)		FAC	C-Neutral Test (D5)
Field Obser	rvations:							
Surface Wa	ter Present? Ye	es No 💿	Depth (in	ches):				
Water Table	Present? Ye	es O No 💿	Depth (in	ches):				
Saturation F		es O No 💿	Depth (in	ches):		Wetl	and Hydrology F	Present? Yes No
	pillary fringe) ecorded Data (stream	gauge, monitorir	ıg well, aerial ı	ohotos, p	revious ins			Teschi: Tes © No
	(20022000)	J J ,	,	, [, , ,		
Remarks:								

Project/Site: The Valley's Edge			City/Cou	nty:Butte		Sam	npling Date:	11-11-14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:	W 92	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 33, T 22N, 1	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	ce		Local re	lief (concave,	convex, none):conc	ave	Slo	ope (%):4	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	721638		Long:-121.75878	36	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	ssification	 : Vernal sw	vale	
Are climatic / hydrologic conditions on th	*		ear? Yes	No ((If no, explair	n in Remar	'ks.)		
			disturbed		"Normal Circumstand			No 🔘	
			oblematic		eeded, explain any a	·			
SUMMARY OF FINDINGS - At							,	eatures, etc.	
				9 po		, , , , , , ,			
Hydrophytic Vegetation Present? Hydric Soil Present?	_		la la	the Complet	J A				
Wetland Hydrology Present?	_			the Sampled			No O		
Remarks:	100 ()		Į W	illiiii a vvelia	nur res		NO C		
VEGETATION		\ + -	Damina	-4 la-li4	Daminana Taat		4.		
Tree Stratum (Use scientific names.)		Absolute <u>% Cover</u>		nt Indicator ? Status	Number of Domina				
1.					That Are OBL, FA			2 (A)	
2.					Total Number of D)ominant			
3					Species Across Al		2	2 (B)	
4					Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 10	0.0 % (A/B)	
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multip	ly by:	
3.					OBL species		x 1 =	0	
4.					FACW species	15	x 2 =	30	
5				_	FAC species	60	x 3 =	180	
Herb Stratum	Total Cover:	%			FACU species	15	x 4 =	60	
1.Festuca perennis		25	Yes	FAC	UPL species		x 5 =	0	
2. Hordeum marinum ssp. gussone	 anum	35	Yes	FAC	Column Totals:	90	(A)	270 (B)	
3. Erodium botrys		15	No	FACU	Prevalence I	ndex = B/	'A =	3.00	
4. Deschampsia danthonioides		15	No	FACW	Hydrophytic Veg	etation In	dicators:		
5.					X Dominance T				
6.					× Prevalence In				
7					Morphologica		ns' (Provide n a separate		
8					- Problematic H		•	•	
Woody Vine Stratum	Total Cover:	90 %					Ü	` ' /	
1					¹ Indicators of hyd be present.	ric soil and	d wetland hy	/drology must	
2					-				
	Total Cover:				Hydrophytic Vegetation	_	_	_	
	0 % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No C)	
Remarks:									

Profile De	scription: (Describe t	to the depth ne	eded to docur	nent the	indicator	or confirn	n the absence o	of indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4	2.5 YR 2.5/3	95 2.5 Y	R 4/8		<u>C</u>	PL	clay loam	cobbles and gravel present			
						·					
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	uced Matrix. CS	S=Covere	ed or Coate	ed Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	I Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indicators fo	or Problematic Hydric Soils: 3			
	ol (A1)	Ĺ	Sandy Redo					uck (A9) (LRR C)			
	Epipedon (A2)		Stripped Ma	. ,				uck (A10) (LRR B)			
	Histic (A3)	Ļ	Loamy Muc					d Vertic (F18)			
	gen Sulfide (A4)	·\	Loamy Gley					rent Material (TF2) Explain in Remarks)			
	ied Layers (A5) (LRR C Muck (A9) (LRR D)	·) [Depleted M Redox Dark					explain in Remarks)			
	ted Below Dark Surface	e (A11)	Depleted Da		. ,						
	Dark Surface (A12)	` ′ ′	Redox Dep	ressions	(F8)			of hydrophytic vegetation and			
	Mucky Mineral (S1)		Vernal Pool	ls (F9)				hydrology must be present.			
	Gleyed Matrix (S4)						uniess ai	istributed or problematic			
	e Layer (if present):										
Type:di			-								
. ,	inches):2	<u> </u>		11			Hydric Soil F				
	Hardpan visible at su swale like features; h					oint. Soil	on top of mou	nds were slightly deeper than in			
	sware like reatures; i	lowever, they	nau siiinar c	maracte	risues.						
HYDROL	OGY										
Wetland H	lydrology Indicators:										
	dicators (minimum of or	ne required; che	ck all that appl	y)				lary Indicators (2 or more required)			
Surfac	ce Water (A1)		Salt Crust	(B11)				ater Marks (B1) (Riverine)			
l 🖳 🐧	Vater Table (A2)		Biotic Crus					diment Deposits (B2) (Riverine)			
l <u>—</u>	ation (A3)		Aquatic In					ift Deposits (B3) (Riverine)			
==	Marks (B1) (Nonriveri	-	Hydrogen		` '		= =	ainage Patterns (B10)			
=	ent Deposits (B2) (Non		=		eres along	_		y-Season Water Table (C2)			
==	eposits (B3) (Nonriver	ine)			ed Iron (C	,	=	ayfish Burrows (C8)			
=	ce Soil Cracks (B6)	(DZ)			tion in Plov	ved Soils (turation Visible on Aerial Imagery (C9)			
	ation Visible on Aerial Ir	magery (B7) [Thin Muck		` '			allow Aquitard (D3)			
Field Obs	-Stained Leaves (B9)		Other (Exp	Diain in R	emarks)		ГА	C-Neutral Test (D5)			
		es No 💽	Depth (in	ches).							
		es No (•									
Saturation											
	capillary fringe)	es No 🖲	Deptii (iii			Wetl	and Hydrology	Present? Yes No			
Describe F	Recorded Data (stream	gauge, monitori	ng well, aerial ı	photos, p	revious ins	spections),	if available:				
Remarks:											

Project/Site: The Valley's Edge			City/Coun	ty:Butte		San	npling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:V	V93	
Investigator(s): D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): sloped	d terrace		Local reli	ef (concave,	convex, none):conc	ave	Slo	pe (%): 3	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	714710		Long:-121.77639	3	Datu	m:WGS 8	34
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	ssification	:Vernal poo	1	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	in Remai	·ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	? Are	"Normal Circumstand	es" prese	nt? Yes 💿	No (
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic?	(If ne	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	tach site map sl	howing	sampli	ng point le	ocations, transe	cts, im	oortant fea	atures, e	etc.
Hydrophytic Vegetation Present?	Yes No	0							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No		wi	thin a Wetla	nd? Yes	•	No O		
VEGETATION									
T 0:		Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	_	% Cover	Species?	<u>Status</u>	Number of Domina			(1)	
1. 2.				_	That Are OBL, FA	CVV, OI FA	.C: 2	(A	1)
3.					Total Number of D Species Across Al		2	, (В	3)
4.					- - Percent of Domina	nt Snecie	9		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA).0 % (A	/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove		Multiply	y by:	
3.					OBL species	5	x 1 =	5	
4.				-	FACW species	10	x 2 =	20	
5					FAC species	55	x 3 =	165	
	Total Cover:	%			FACU species	10	x 4 =	40	
Herb Stratum		20	37		UPL species		x 5 =	0	
1. Hordeum marinum gussoneanum	<u>1</u>	30 25	Yes	FAC	Column Totals:	80	(A)	230	(B)
2. Festuca perennis 3. Bromus hordeaceus		10	Yes No	FACU FACU	Prevalence I	ndex = B/	'A =	2.88	
4. Deschampsia danthonioides		10	No	FACW	Hydrophytic Veg	etation In	dicators:		
5.Lasthenia fremontii		5	No	OBL	➤ Dominance Te				
6.					× Prevalence In	dex is ≤3.	D ¹		
7.					Morphological	Adaptatio	ons ¹ (Provide	supporting	j
8.							n a separate		
	Total Cover:	80 %			Problematic H	iyaropnyti	c vegetation.	(Explain)	
Woody Vine Stratum 1.					¹ Indicators of hydronical	ric soil and	d wetland hy	drology mı	ust
2.					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
	0 % Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes •	No C)	
Remarks:]

SOIL Sampling Point: $\underline{W93}$

Profile Des	scription: (Describe to	o the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3	95 2.5	YR 4/8	5	C	PL	Gravelly clay loam	
				-				
¹ Type: C=0	Concentration, D=Deple	etion, RM=Re	duced Matrix. C	S=Cover	ed or Coate	ed Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs. ı	ınless otherwise	noted.)			Indicators for F	Problematic Hydric Soils: 3
Histos			Sandy Redo					k (A9) (LRR C)
Histic I	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mucl	k (A10) (LRR B)
Black I	Histic (A3)		Loamy Mud	ky Miner	al (F1)			Vertic (F18)
	gen Sulfide (A4)		Loamy Gle					nt Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Exp	plain in Remarks)
	Muck (A9) (LRR D)	(8.4.4)	Redox Dark		, ,			
ı Ш ·	ed Below Dark Surface	(A11)	Depleted D		` '		3 Indicators of h	nydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep X Vernal Poo		(F8)			drology must be present.
	Gleyed Matrix (S4)		Vernai F00	15 (1-9)			unless dist	ributed or problematic
	Layer (if present):							
Type:	, от (т р. сест., с							
Depth (i	nches):		_				Hydric Soil Pre	esent? Yes No
Remarks:							1.7	
- rtorriaritor								
HYDROL	OGY							
Wetland H	ydrology Indicators:							
Primary Inc	dicators (minimum of or	ne required; ch	eck all that app	y)				y Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru	st (B12)			Sedi	ment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic In	vertebrat	es (B13)			Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrivering	ne)	Hydrogen	Sulfide (Odor (C1)		Drain	age Patterns (B10)
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosph	eres along	Living Roo	ots (C3) Dry-S	Season Water Table (C2)
	eposits (B3) (Nonriveri	ine)			ced Iron (C	,		fish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reduc	tion in Plov	ved Soils ((C6) Satur	ration Visible on Aerial Imagery (C9)
Inunda	ition Visible on Aerial In	nagery (B7)	Thin Muck	Surface	(C7)		Shall	ow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC-	Neutral Test (D5)
Field Obse	ervations:	_	_					
Surface Wa	ater Present? Ye	s No (Depth (in	ches):				
Water Tabl	e Present? Ye	s No (Depth (in	ches):				
	apillary fringe)	es No (land Hydrology Pı	resent? Yes No
Describe R	ecorded Data (stream	gauge, monito	ring well, aerial	photos, p	revious ins	spections),	if available:	
Remarks:V	ernal pools are locat	ted on a slop	ed terrace that	receive	s its wate	r from sh	eet flow.	

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:V	V94	
Investigator(s):D. Machek, E. Gregg			Section,	Гownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): slope	d terrace		Local reli	ief (concave,	convex, none):sligh	tly concar	ve Slo	pe (%):2	
Subregion (LRR) C - Mediterranean C	alifornia	Lat:39.7	713459		Long:-121.77895	52	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	assification:	Seasonal s	wale	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remarl	ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" preser	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If ne	eeded, explain any a	nswers in F	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_	Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No			thin a Wetla		•	No 🔘		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshee	ļ•		
<u>Tree Stratum</u> (Use scientific names.)				Status	Number of Domin				
1			·		That Are OBL, FA				(A)
2				_	Total Number of D	Oominant			
3				_	Species Across A	ll Strata:	2		(B)
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 100	0.0 %	(A/B)
1.					Prevalence Index	workshee	et:		
2.					Total % Cove	r of:	Multipl	y by:	-
3.					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5				_	FACIL appoins	55	x 3 =	165	
Herb Stratum	Total Cover:	%			FACU species UPL species	30	x 4 = x 5 =	120	
1.Festuca perennis		35	Yes	FAC	Column Totals:	85	(A)	285	(B)
2.Hordeum marinum gussoneanum		20	Yes	FAC	_ Column rotals.	83	(A)	203	(D)
3.Lactuca serriola		15	No	FACU	Prevalence			3.35	
4. Erodium botrys		15	No	FACU	Hydrophytic Veg				
5				_	X Dominance T				
6					Prevalence Ir Morphologica			cupporti	na
7				_	data in Re	marks or o	n a separate	sheet)	iig
8	Total Cover:	0.5			Problematic F	Hydrophytic	Vegetation ¹	(Explain	1)
Woody Vine Stratum	Total Cover.	85 %							
1					¹ Indicators of hyd	ric soil and	wetland hy	drology r	must
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum15	5 % % Cover o	of Biotic C	Crust	%	Present?	Yes •	No C)	
Remarks:					1				

Color (moist)	Depth Matrix			Features				
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains 7 Location: PL=Pore Lining, M=Matrix (Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histoscol (A1) Histoscol (A1) Histoscol (A2) Histoscol (A3) Histoscol (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Loamy Mukch Mineral (F1) Loamy Mukch Mineral (F1) Loamy Gleyed Matrix (So) Loamy Gleyed Matrix (F3) Loamy Gleyed Matrix (F3) Loamy Gleyed Matrix (F3) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Sandy Micky Mineral (S1) Sandy Legyer (if present): Type: Depth (inches): Premarks: **POROLOGY** **Wetland Hydrology Indicators: **Porosing Facility Control (F1) High Water Table (A2) Beloic Crust (B12) Mater Marks (B1) (Nonriverine) Hydrogen Sulface Water (A1) Water Marks (B1) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) nches) Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks	
Aydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-4 7.5 YR 3/2	98 7.5	YR 5/8		<u> </u>	<u>M</u>	clay loam	gravel present
Varic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)								
Histics (A1)	ype: C=Concentration, D=Depl	etion, RM=Red	uced Matrix. CS		or Coate	ed Sand Gra		Location: PL=Pore Lining, M=Matrix
Sandy Mucky Mineral (S1)	Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C 1 cm Muck (A9) (LRR D) Depleted Below Dark Surface	[[[:) [Sandy Redox Stripped Ma Loamy Muck Loamy Gley Depleted Ma Redox Dark Depleted Da	trix (S5) trix (S6) xy Mineral ed Matrix atrix (F3) Surface (I ark Surface	(F2) F6) e (F7)		1 cm Muc 2 cm Muc Reduced Red Pare Other (Ex	ck (A9) (LRR C) ck (A10) (LRR B) Vertic (F18) ent Material (TF2) kplain in Remarks)
Popth (inches): Popth (inches): Present? Present	Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	[F8)		wetland h	ydrology must be present.
Depth (inches): Remarks: Hydric Soil Present? Yes No No No								
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No ● Depth (inches): Water Table Present? Yes No ● Depth (inches): Wetland Hydrology Present? Yes No ● Depth (inches): Wetland Hydrology Present? Yes No ● Depth (inches): Wetland Hydrology Present? Yes No ● Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	**		_				Hydric Soil P	resent? Yes No
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drift Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water Table Present? Yes No Depth (inches): Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Dri								
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Saturation (A3) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B10) Water Arks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Portion Sediment Sedim	etland Hydrology Indicators:							
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriveri Sediment Deposits (B2) (Nor Drift Deposits (B3) (Nonriver Surface Soil Cracks (B6) Inundation Visible on Aerial Ir Water-Stained Leaves (B9)	ne) nriverine) ine)	Salt Crust (Biotic Crus Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iror Thin Muck	(B11) t (B12) ertebrates Sulfide Od hizospher of Reducei n Reductio Surface (C	lor (C1) res along d Iron (C4 on in Plow C7)	1)	Wa Sec Drift	ter Marks (B1) (Riverine) liment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) Illow Aquitard (D3)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				· -				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	aturation Present?			· · ·		Wetlar	nd Hydrology F	Present? Yes No
Remarks:		gauge, monitor	ing well, aerial p	hotos, pre	evious ins	pections), if	available:	
	emarks:							

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:W	<i>l</i> 95	
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): fan terrac	e		Local reli	ef (concave,	convex, none):sligh	tly conca	ve Slop	oe (%):1	
Subregion (LRR):C - Mediterranean Califo	rnia	Lat:39.7	713341		Long:-121.78126	55	——— Datur	n:WGS	84
Soil Map Unit Name: Redtough-Redswale,					NWI cla	assification	Seasonal w	vetland	
Are climatic / hydrologic conditions on the site		time of ve	ear? Yes (• No (
Are Vegetation Soil or Hydrolo			disturbed		"Normal Circumstan			No	\circ
	-		oblematic?		eeded, explain any a			140	
				`	, ,		,		-4-
SUMMARY OF FINDINGS - Attach	site map si	nowing	sampiir	ng point i	ocations, transe	ects, imp	ortant tea	itures,	etc.
Hydrophytic Vegetation Present? Ye	es 🕟 No								
	es 🕟 No		Is t	he Sample	d Area				
, 5,	es No			hin a Wetla	nd? Yes	•	No 🖯		
Remarks: This data sheet is to be used for	or sample poil	nts w 93	sa and w	950.					
VEGETATION									
Total Obstanta (Use acital(Conserva))		Absolute		Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species?	Status	Number of Domina				(4)
1					That Are OBL, FA	CVV, or FA	C: 2		(A)
2. 3.					Total Number of D		2		(D)
4.					Species Across A	ii Strata:	2		(B)
	Total Cover:	%			Percent of Domina That Are OBL, FA			.0 %	(
Sapling/Shrub Stratum	rotal Gover.	70			That Ale Obl., I A	CVV, OI I A	0. 100	.0 %	(A/B)
1					Prevalence Index		et:		
2					Total % Cove	r of:	Multiply		
3					OBL species		x 1 =	0	
4					FACW species	15	x 2 =	30	
5	T-1-1-0				FAC species FACU species	75	x 3 =	225	
Herb Stratum	Total Cover:	%			UPL species	5	x 4 = x 5 =	20	
1.Xanthium strumarium		40	Yes	FAC		5		25 300	(B)
2.Artemisia douglasiana		25	Yes	FAC	Column Totals:	100	(A)	300	(B)
3.Lactuca serriola		5	No	FACU	Prevalence	Index = B/A	A =	3.00	
4. Cyperus eragrostis		10	No	FACW	Hydrophytic Veg	etation Inc	dicators:		
5.Rumex crispus		10	No	FAC	X Dominance T				
6. Lythrum sp.		5	No	FACW	× Prevalence In				
7.Brassica nigra		5	No	Not Listed	Morphologica	l Adaptatio	ns¹ (Provide : n a separate	supportii	ng
8					- Problematic H				.)
Moody Vino Stratum	Total Cover:	100%			Troblemation	туагоргтупс	vogotation	(Explain	,
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hvo	drology r	must
1. 2.					be present.				
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum %	% Cover of	of Riotic C	ruet	0/4	Vegetation Present?	Yes •	No 🔿		
Remarks:	70 OOVEI (DIOIIO C		<u>%</u>	i resent:	163 (6)	140		
Tromans.									

SOIL Sampling Point: W95

Profile Des	scription: (Describe t	o the depth nee	ded to docu	ment the	indicator	or confirm	n the absence	of indicators.)				
Depth	Matrix			x Feature								
(inches)	Color (moist)		or (moist)	%_	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-4	7.5 YR 2.5/2	85 <u>5 YR</u>	5/6+	15	<u>C</u>	<u>PL</u>	sandy loam					
	_											
Type: C=0	Concentration, D=Deple	etion, RM=Redu	ced Matrix. C	S=Cover	ed or Coate	ed Sand Gr	rains	² Location: PL=Pore Lining, M=Matrix.				
Uvdria Cail	Indicators, (Applicable	a to all I BBa un	laga athamuia	- notod \			Indicators f	or Problematic Hydric Soils: ³				
Histoso	Indicators: (Applicable (A1)	e to all LKKS, un	Sandy Redo					luck (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	, ,				luck (A10) (LRR B)				
	Histic (A3)		Loamy Mud	, ,			Reduce	ed Vertic (F18)				
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matr	ix (F2)		Red Pa	arent Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted M	,	,		Other (Explain in Remarks)				
	fluck (A9) (LRR D)	(0.4.4)	Redox Darl		. ,							
	ed Below Dark Surface Dark Surface (A12)	(A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and				
	Mucky Mineral (S1)	<u> </u>	Vernal Poo		(ГО)		wetland	hydrology must be present.				
	Gleyed Matrix (S4)		_ voinai i oo	10 (1 0)			unless distributed or problematic					
	Layer (if present):											
Type:												
Depth (i	nches):						Hydric Soil	Present? Yes No				
Remarks:												
HYDROLO	ngy											
	ydrology Indicators:											
1	licators (minimum of or	ne required: che	k all that ann	lv)			Secon	dary Indicators (2 or more required)				
	e Water (A1)	ie required, che	Salt Crust					Vater Marks (B1) (Riverine)				
l 🖳	/ater Table (A2)	L	Biotic Crust	` '				ediment Deposits (B2) (Riverine)				
1 == -	tion (A3)	L	Aquatic In	, ,	tes (R13)			rift Deposits (B3) (Riverine)				
l <u>—</u>	Marks (B1) (Nonriveri i	ne)	Hydrogen					rainage Patterns (B10)				
==	ent Deposits (B2) (Non		= -		eres along	Living Roc	= =	ry-Season Water Table (C2)				
🗀	eposits (B3) (Nonriver i	, ,	=		ced Iron (C	_	` ' 🖳	rayfish Burrows (C8)				
l <u>—</u>	e Soil Cracks (B6)	[=		tion in Plov			aturation Visible on Aerial Imagery (C9)				
=	tion Visible on Aerial In	nagery (B7)	Thin Muck			•	· 😐	hallow Aquitard (D3)				
=	Stained Leaves (B9)		Other (Exp	olain in R	emarks)			AC-Neutral Test (D5)				
Field Obse	ervations:		<u> </u>									
Surface Wa	ater Present? Ye	s No 💿	Depth (in	ches):								
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):								
Saturation	1.0	es O No 💿	Depth (in	ches):		\A/a4l	and Hudralam	Present? Yes No				
	apillary fringe) ecorded Data (stream	nauge monitorin	ng well aerial	nhotos r	revious ins			/ Present? Yes (•) No (
Describe IX	coorded Data (officially	gaage, monitorii	ig woii, acriai	priotos, p	orovious inc	pootionoj,	ii availabio.					
Remarks:												

Project/Site: The Valley's Edge		City/Count	y:Butte		Sam	pling Date: 1	-14-15		
Applicant/Owner: B. Brouhard				State: CA	Sam	Sampling Point:U02_03_04			
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E				
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):conv	vex	Slo	pe (%):3		
Subregion (LRR):C - Mediterranean California	Lat:39.7	724387		Long:-121.77602	17	Datum:WGS 84			
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent	slopes			NWI cla	assification	:Upland			
Are climatic / hydrologic conditions on the site typical for the	nis time of ye	ar? Yes	No ((If no, explai	n in Remar	 ks.)			
Are Vegetation Soil or Hydrology	significantly	disturbed?	Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No 🔘		
Are Vegetation Soil or Hydrology	naturally pro			eeded, explain any a	nswers in I	Remarks.)			
SUMMARY OF FINDINGS - Attach site map			`			,	atures. etc		
			9		,р				
	No 💿 No 💿	lo 4	ha Campla	J A					
	No (he Sampled hin a Wetla			No 💿			
Remarks:This data sheet is to be used for the uplan						NO (S			
•									
VEGETATION									
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?		Dominance Test					
1.				Number of Domin That Are OBL, FA) (A)		
2.				- - Total Number of [Oominant				
3.				Species Across A		3	(B)		
4				Percent of Domin	ant Species				
Total Cov Sapling/Shrub Stratum	/er: %			That Are OBL, FA			0 % (A/B)		
1.				Prevalence Index	k workshe	et:			
2.				Total % Cove		Multipl	y by:		
3.				OBL species		x 1 =	0		
4.				FACW species		x 2 =	0		
5.				FAC species		x 3 =	0		
Total Cov	er: %			FACU species	25	x 4 =	100		
Herb Stratum 1.Agoseris heterophylla	15	No	Not Listed	UPL species	75	x 5 =	375		
2.Elymus caput medusae	$-\frac{13}{40}$	Yes	UPL	Column Totals:	100	(A)	475 (B)		
3. Festuca sp.	$-\frac{40}{20}$	Yes	Not Listed	Prevalence	Index = B/	A =	4.75		
4. Erodium botrys	$-\frac{25}{25}$	Yes	FACU	Hydrophytic Veg	etation Inc	dicators:			
5.				Dominance T	est is >50%	6			
6.				Prevalence Ir					
7				Morphologica	l Adaptatio	ns¹ (Provide n a separate	supporting		
8				- Problematic I					
Total Cov Woody Vine Stratum	er: 100%				, , ,	J	(
1				¹ Indicators of hyd	ric soil and	d wetland hy	drology must		
2.				be present.					
Total Cov				Hydrophytic					
% Bare Ground in Herb Stratum $0~%$ % Cov	er of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 🖲			
Remarks:				I.					

SOIL Sampling Point: <u>U02_03_0</u>

Profile Des	scription: (Describe t	to the depth nee	ded to docur	ment the i	indicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-12	2.5 YR 2.5/3	_100					Clay loam					
								_				
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.				
								3				
	Indicators: (Applicabl	e to all LRRs, unl	_					Problematic Hydric Soils: 3				
Histoso			Sandy Redo	` '				ck (A9) (LRR C)				
	Epipedon (A2) Histic (A3)		Stripped Ma	. ,	J (E1)			ck (A10) (LRR B) Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)				
	ed Layers (A5) (LRR C	:)	Depleted M		(1 2)			xplain in Remarks)				
	Muck (A9) (LRR D)	"	Redox Dark		(F6)			in terraine,				
	ed Below Dark Surface	e (A11)	Depleted D									
Thick [Dark Surface (A12)	` '	Redox Dep	ressions (F8)			hydrophytic vegetation and				
Sandy	Mucky Mineral (S1)		Vernal Pool	ls (F9)			wetland hydrology must be present.					
Sandy	Gleyed Matrix (S4)		_				unless dis	stributed or problematic				
Restrictive	Layer (if present):											
Type:												
Depth (i	nches):						Hydric Soil Pr	resent? Yes No No				
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface					
HYDROLO	ncv .											
	ydrology Indicators:						0	and ladicators (2 or soons as suited)				
	dicators (minimum of or	ne required; chec						ary Indicators (2 or more required)				
=	e Water (A1)	Ĺ	Salt Crust	` '				ter Marks (B1) (Riverine)				
l 🖳 🐧	/ater Table (A2)	Ĺ	Biotic Crus					diment Deposits (B2) (Riverine)				
l 🖳	tion (A3)	Ĺ	Aquatic In					t Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	· · · · =	Hydrogen		` '		= =	inage Patterns (B10)				
=	ent Deposits (B2) (Nor	· =	Oxidized F		_	-		-Season Water Table (C2)				
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)				
🗀	e Soil Cracks (B6)		Recent Iro			ed Soils (uration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	magery (B7)	Thin Muck	`	,			llow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	plain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse												
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):								
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		Wet	and Hydrology F	Present? Yes No •				
	apillary fringe) ecorded Data (stream	gauge monitorin	g well aerial	photos pr	evious inc		and Hydrology F	Present? Yes (No (•				
2000 IN	July Data (Strodill	34430, monitorin	e, acriar	μοιου, pi	J 71000 1110	, colloi13),	aranabio.					
Domortos												
Remarks:												
l												

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15		
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:U05			
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E	_			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):none	;	Slo	pe (%):1		
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724860		Long:-121.77768	39	Datum: WGS 84			
Soil Map Unit Name: Redtough-Redsw	ale, 0 to 2 percen	t slopes			NWI cla	assification	:Upland			
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (• No((If no, explai	n in Remar	 ks.)			
Are Vegetation Soil or Hy	rdrology sig	nificantly	disturbed'	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (0	
			oblematic?		eeded, explain any a	nswers in I	Remarks.)			
SUMMARY OF FINDINGS - Att					ocations, trans	ects, imp	oortant fe	atures,	etc.	
		•		<u> </u>	·					
Hydrophytic Vegetation Present? Hydric Soil Present?		•	le :	the Sample	4 Area					
Wetland Hydrology Present?	_	Is the Sampled Area within a Wetland? Yes No •								
Remarks:				iiiii a wona	103		110			
VEGETATION		(l l t -	D	(la Pastan	I Barriago Tarri					
Tree Stratum (Use scientific names.)		Absolute % Cover	Species?	t Indicator Status	Dominance Test					
1.	_				Number of Domin That Are OBL, FA			(1	(A)	
2.					- - Total Number of D	Ominant				
3.					Species Across A		2	1)	(B)	
4.					Percent of Domin	ant Snacia	2			
Carling of Charles Charles	Total Cover:	%			That Are OBL, FA			0 % (A	A/B)	
Sapling/Shrub Stratum 1.					Prevalence Index	worksho	ot.			
2.					Total % Cove		Multipl	v bv:		
3.				-	OBL species		x 1 =	0		
4.					FACW species		x 2 =	0		
5.					FAC species		x 3 =	0		
	Total Cover:	%			FACU species	20	x 4 =	80		
Herb Stratum					UPL species	80	x 5 =	400		
1.Erodium botrys		20	Yes	FACU	Column Totals:	100	(A)	480	(B)	
2 Layia fremontii		5	No	NI -	Prevalence	Index = B/	Α =	4.80		
3. Elymus caput medusae 4. Centaurea solstitialis		60	Yes	UPL Not Listed	Hydrophytic Veg			4.00		
5.		15	No	Not Listed	Dominance T					
6.					Prevalence Ir					
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supportin	ıg	
8.							n a separate			
	Total Cover:	100%			Problematic I	Hydrophytic	: Vegetation	(Explain)	1	
Woody Vine Stratum		100 /0			11 a Partage of book		Lorente e el bor	de de en conse		
1					¹ Indicators of hyd be present.	ric soil and	d wetland hy	arology m	nust	
2	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum 0	% % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 🖯	No ●)		
Remarks:										

SOIL Sampling Point: $\underline{U05}$

Profile Des	scription: (Describe t	to the depth nee				or confirn	n the absence of indic	cators.)
Depth (inches)	Matrix	0/		x Features		1002	Toyture	Pomorles
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²		Remarks
0-6	2.5 YR 3/3						Gravelly clay loam	
	_							
	-							
1- 0			114 () 0				21.00	etion, DI. Done Lining M. Matrix
Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains - Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. un	less otherwis	e noted.)			Indicators for Prob	lematic Hydric Soils: 3
Histose			Sandy Red	-			1 cm Muck (As	
	Epipedon (A2)		Stripped M	` '			2 cm Muck (A	
	Histic (A3)		Loamy Mu	-	, ,		Reduced Verti	
	gen Sulfide (A4)		Loamy Gle		(F2)		Red Parent Ma	, ,
	ed Layers (A5) (LRR C	;)	Depleted N	, ,	(5 0)		Other (Explain	in Remarks)
	Muck (A9) (LRR D)	_ (0.4.4)	Redox Dar		` '			
· — ·	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D		. ,		3 Indicators of hydro	ophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	•	10)		wetland hydrolo	ogy must be present.
	Gleyed Matrix (S4)	L	_ voiriai i oc	10 (1 0)			unless distribut	ed or problematic
	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Presen	t? Yes ◯ No ⊙
Remarks:								
HYDROL	nev							
	ydrology Indicators:			1			Secondary Inc	dicators (2 or more required)
	dicators (minimum of or	<u>ne requirea, che</u> i		-				arks (B1) (Riverine)
	e Water (A1)	Ĺ	Salt Crus					, , ,
<u> </u>	Vater Table (A2)	Į.	Biotic Cru		- (D40)			t Deposits (B2) (Riverine)
	tion (A3)	[≓ '	vertebrate	,			osits (B3) (Riverine) Patterns (B10)
=	Marks (B1) (Nonriveri	,	≓ ' °	Sulfide O	` '	Lista a Dar		on Water Table (C2)
	ent Deposits (B2) (Nor	, ,	=	Rhizosphe	_	-		` '
1 ==	eposits (B3) (Nonriver	ine)		of Reduce on Reducti	,	,		Burrows (C8) n Visible on Aerial Imagery (C9)
	e Soil Cracks (B6)		=			reu sons (′ 🖳	3 , (,
	ition Visible on Aerial II Stained Leaves (B9)	magery (b/) [k Surface (plain in Re	,			Aquitard (D3) tral Test (D5)
Field Obse		L	Other (LX	piaiii iii ixe	iliaiks)		I AO Nea	tiai rest (D0)
		es O No 💽	Depth (ir	iches).				
Water Tabl		es No (•		· · ·				
Saturation	_	es O No 💽		· · · · · · · · · · · · · · · · · · ·				
I .	apillary fringe)	es O No G	Doptii (ii			Wetl	and Hydrology Prese	nt? Yes 🖯 No 💿
Describe R	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
I								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:U06		
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	:e		Local reli	ef (concave,	convex, none):conv	ex	Slop	pe (%):2	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724860		Long:-121.77768	39	Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th		•	ear? Yes (• No (
			disturbed1		"Normal Circumstan		,	No (\bigcirc
			oblematic?		eeded, explain any a	•			
SUMMARY OF FINDINGS - Att				`			,	aturas	etc
COMMANT OF THE INCO - ALL			Jampin	ig point i	ocations, transc	, oto, iiiip	Jortant rec		
Hydrophytic Vegetation Present?		•							
Hydric Soil Present?		•		the Sample			0		
Wetland Hydrology Present? Remarks:	Yes No	•	wit	thin a Wetla	nd? Yes		No 🖲		
VEGETATION									
TEGET/KITOK		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)			Species?		Number of Domina				
1					That Are OBL, FA	CW, or FA	C: 0	(.	(A)
2					Total Number of D				
3				-	Species Across A	II Strata:	2	((B)
4		21		-	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: ().(0 % (A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3				_	OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5		21			FACIL appoins	20	x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	20	x 4 = x 5 =	80 400	
1.Elymus caput meduase		60	Yes	UPL	Column Totals:	80	(A)	480	(B)
2.Agoseris heterophylla		15	No	Not Listed	_ Column rotals.	100	(A)	400	(D)
3.Bromus hordeaceous		20	Yes	FACU	Prevalence			4.80	
4. Avena sp.		5	No	Not Listed	Hydrophytic Veg				
5.					Dominance T				
6					Prevalence In				
7					Morphologica data in Re	n Adaptation marks or o	ns (Provide n a separate	supportin	ıg
8	Tatal Causan			-	Problematic H	Hydrophytic	: Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hyd be present.	ric soil and	d wetland hyd	drology m	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0	% Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 🖲)	
Remarks:									

SOIL Sampling Point: $\underline{U06}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirr	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loam	
6-12	2.5 YR 3/4						Gravelly loam	
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for I	Problematic Hydric Soils: 3
Histoso			Sandy Redo					k (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,	. (= 1)			k (A10) (LRR B)
	Histic (A3)	L	Loamy Mud Loamy Gle	-	. ,			Vertic (F18) nt Material (TF2)
	gen Sulfide (A4) ed Layers (A5) (LRR 0	;)			plain in Remarks)			
	fluck (A9) (LRR D)	"	Depleted M Redox Dar	` ,	(F6)		Out (2X)	plant in recinance)
	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)		o la diseteur ef l	
	Dark Surface (A12)				hydrophytic vegetation and			
	Mucky Mineral (S1)			wetland hydrology must be present. unless distributed or problematic				
	Gleyed Matrix (S4) Layer (if present):							
Type:	Layer (ii present).							
Depth (i	nches):		-				Hydric Soil Pre	esent? Yes No 💿
Remarks:							Tiyano con Ti	
HADBOL	200V							
HYDROL								
	ydrology Indicators:	na raguirad, aba	als all that ann	1)			Secondar	y Indicators (2 or more required)
	dicators (minimum of one dicators (Minimum of one dicators)	ne required, che	Salt Crust					er Marks (B1) (Riverine)
=	e water (A1) √ater Table (A2)		Biotic Crusi	` '				ment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)		Aquatic In		e (B13)			Deposits (B3) (Riverine)
l 🖳	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
=	ent Deposits (B2) (Nor				res along	Living Ro	= -	Season Water Table (C2)
=	eposits (B3) (Nonriver		_		ed Iron (C4	-		fish Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent Iro	on Reducti	ion in Plow	ed Soils ((C6) Satu	ration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Shall	low Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC-	-Neutral Test (D5)
Field Obse								
		es No 🖲		· · · · · ·				
Water Tabl	-	es No 🗨						
Saturation (includes ca	Present? Υα apillary fringe)	es O No 🖲	Depth (in	iches):		Wetl	land Hydrology P	resent? Yes No
	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge		City/County:Butte Sampling Date:1						
Applicant/Owner: B. Brouhard				State:CA Sampling Point:U07_08				
Investigator(s):D. Machek, E. Gregg		Section, To	ownship, Ra	nge:S 32, T 22N, R 2	- E	_		
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):convex		Slope	e (%):2	5
Subregion (LRR):C - Mediterranean California	Lat:39.7	724860		Long:-121.777689		—— Datum	:WGS	84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	pes			NWI classif	ication:U	Jpland		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	No ((If no, explain in	 Remarks	s.)		
		disturbed?		'Normal Circumstances'	present	? Yes 💿	No (\bigcirc
		oblematic?		eded, explain any answ	•			
SUMMARY OF FINDINGS - Attach site map sl			`			,	tures,	etc.
Hydrophytic Vegetation Present? Yes No	•							
	•	ls t	he Sampled	Area				
	•		hin a Wetlar		N	o		
Remarks: This data sheet is to be used for the upland s	sample p							
_								
VEGETATION								
	Absolute	Dominant		Dominance Test wor	ksheet:			
	% Cover	Species?	_Status_	Number of Dominant That Are OBL, FACW		: 0		(A)
1				That Ale OBL, FACV	, or FAC	. 0	((A)
3.				Total Number of Dom Species Across All St		2		(B)
4.				Opecies Across Air St	ala.	2		(0)
Total Cover:	%			Percent of Dominant That Are OBL, FACW		0.0	0/ (A/B)
Sapling/Shrub Stratum	70			That Are ODE, I AGW	, 01 1 AC	0.0	% (A(D)
1				Prevalence Index wo		:		
2				Total % Cover of:		Multiply		
3				OBL species		x 1 =	0	
4				FACW species		x 2 =	0	
5.	0/			FAC species FACU species		x 3 = x 4 =	140	
Total Cover: Herb Stratum	%			UPL species	33	x 5 =	325	
1.Elymus caput medusae	40	Yes	UPL	Column Totals:	00	(A)	465	(B)
2-Agoseris heterophylla	15	No	Not Listed	Column Totals.	100	(A)	403	(D)
3.Bromus hordeaceous	20	Yes	FACU	Prevalence Inde	x = B/A	=	4.65	
4. Erodium botrys	15	No	FACU	Hydrophytic Vegetat		cators:		
5. Centaurea solstitialis	10	No	Not Listed	Dominance Test				
6				Prevalence Index		-1 (Day 14)		
7				Morphological Add	aptations	s (Provide s a separate s	upportin heet)	ıg
8.				Problematic Hydr)
Total Cover: Woody Vine Stratum	100%							
1.				¹ Indicators of hydric s	oil and	wetland hydi	ology n	nust
2				be present.				
Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0 % Cover of	of Biotic C	Crust	%_	Vegetation Present? Y	es 🔘	No 💿		
Remarks:			<u> </u>	I.				

SOIL Sampling Point: $\underline{U07_08}$

Profile Des	scription: (Describe	to the depth ne	eeded to docu	ment the	indicator	or confirn	n the absence of	indicators.)			
Depth	Matrix			x Feature							
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-6	2.5 YR 2.5/3						Gravelly clay loam	1			
6-12	2.5 YR 3/4						Gravelly loam	-			
	_										
	_										
	-										
¹ Type: C=0	Concentration, D=Dep	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Cocation: PL=Pore Lining, M=Matrix.			
Hvdric Soil	Indicators: (Applicable	le to all LRRs. u	nless otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3			
Histoso		[Sandy Redo					k (A9) (LRR C)			
	Epipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)			
	Histic (A3)	[Loamy Mu	-	. ,			Vertic (F18)			
	gen Sulfide (A4) ed Layers (A5) (LRR (Loamy Gle Depleted N		((F2)			nt Material (TF2) plain in Remarks)			
	fuck (A9) (LRR D)	•) [Redox Dar	, ,	(F6)		Other (Ex	piair iir Kemarks)			
	ed Below Dark Surface	e (A11)	Depleted D		` '						
Thick [Dark Surface (A12)		Redox Dep	ressions (F8)			hydrophytic vegetation and			
	Mucky Mineral (S1)	ĺ	Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic				
	Gleyed Matrix (S4)						uniess dis	inbuted of problematic			
	Layer (if present):										
Type:	n ah a a \ .		_				Uvdeia Sail De	esent? Yes No 💿			
Depth (i							Hydric Soil Pr	esent? Yes (No ()			
Remarks.											
HYDROLO	nev .										
l '	ydrology Indicators:	no roquirodi ob	aak all that ann	1)			Seconda	ry Indicators (2 or more required)			
	<u>licators (minimum of o</u> e Water (A1)	ne requirea, chi						er Marks (B1) (Riverine)			
l <u>=</u>	/ater Table (A2)		Salt Crus	` '				iment Deposits (B2) (Riverine)			
l 🖳 🐧	tion (A3)			vertebrate	es (B13)			Deposits (B3) (Riverine)			
l <u>—</u>	Marks (B1) (Nonriver i	ine)		Sulfide O				nage Patterns (B10)			
l <u>=</u>	ent Deposits (B2) (No				eres along	Living Ro	= =	Season Water Table (C2)			
=	eposits (B3) (Nonrive				ed Iron (C4	_	· · · —	rfish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Ire	on Reducti	ion in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)			
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Shal	llow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	-Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Y	es No (
Water Table	e Present? Y	es O No (Depth (ir	iches):							
Saturation	Present? Yapillary fringe)	es O No (Depth (ir	iches):		Wetl	land Hydrology P	resent? Yes O No •			
	ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins						
Remarks:											

Project/Site: The Valley's Edge		City/Count	y:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard				State:CA	Sam	pling Point:[J09_10_11	
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):conv	ex	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean California	Lat:39.7	724387		Long:-121.77601	Datum: WGS 84			
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent	slopes			NWI cla	assification	Upland		
Are climatic / hydrologic conditions on the site typical for the	nis time of ye	ar? Yes	No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hydrology	significantly	disturbed?	Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hydrology	naturally pro			eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attach site map			`			,	atures etc	
			g point i		, , , , , , , , , , , , , , , , , , ,	ortant 10		
	No 💿							
,	No 💿 No 🕟		he Sampled			N		
Remarks: This data sheet is to be used for the uplan			hin a Wetla /F 09 10			No 🖲		
This data sheet is to be used for the upin	a sumpre p		1 0, 10,					
VEGETATION				=				
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?		Dominance Test				
1.	70 00001	_ороскоз:	<u> </u>	Number of Domin That Are OBL, FA) (A)	
2.				-		0.	(7.7)	
3.				 Total Number of D Species Across A 		2	(B)	
4.				- Percent of Domina				
Total Cov	ver: %			That Are OBL, FA			0 % (A/B)	
Sapling/Shrub Stratum				Prevalence Index	v worksho	at:		
1				Total % Cove		Multipl	ıv hv	
3.				OBL species	. 01.	x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cov	er: %			FACU species	15	x 4 =	60	
Herb Stratum	40	*7		UPL species	85	x 5 =	425	
1. Elymus caput medusae	_ 40	Yes	UPL	Column Totals:	100	(A)	485 (B)	
2.Layia fremontii 3.Festuca microstachys	$-\frac{10}{25}$	No Yes	NI N. H. L	Prevalence	Index = B/	A =	4.85	
4. Dodecatheon clevelandii ssp. patulum	$-\frac{25}{10}$	No	Not Listed Not Listed	Hydrophytic Veg	etation Inc	dicators:		
5.Bromus hordeaceous	$-\frac{10}{15}$	No	FACU	Dominance T				
6.				Prevalence Ir	ndex is ≤3.0)1		
7.				Morphologica	I Adaptatio	ns¹ (Provide	supporting	
8.				- data in Re		n a separate	,	
Total Cov	er: 100%			- D Problematic F	тушторпушс	vegetation	(Explain)	
Woody Vine Stratum 1.				¹ Indicators of hyd	ric soil and	l wetland hv	drology must	
				be present.		,	3,	
Total Cov				Hydrophytic				
	er of Biotic C	ruct	0/	Vegetation Present?	Yes 〇	No (•)	
Remarks:	CI OI DIOLIC C		<u>%</u>	i-rescrit!	169	INO (/	
incinars.								
I								

SOIL Sampling Point: $\underline{\text{U09_10_}}$

Profile Des	scription: (Describe t	to the depth nee	ded to docur	ment the i	indicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-12	2.5 YR 2.5/3	_100					Clay loam					
								_				
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.				
								3				
	Indicators: (Applicabl	e to all LRRs, unl	_					Problematic Hydric Soils: 3				
Histoso			Sandy Redo	` '				ck (A9) (LRR C)				
	Epipedon (A2) Histic (A3)		Stripped Ma	. ,	J (E1)			ck (A10) (LRR B) Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)				
	ed Layers (A5) (LRR C	:)	Depleted M		(1 2)			xplain in Remarks)				
	Muck (A9) (LRR D)	"	Redox Dark		(F6)			in terraine,				
	ed Below Dark Surface	e (A11)	Depleted D									
Thick [Dark Surface (A12)	` '	Redox Dep	ressions (F8)			hydrophytic vegetation and				
Sandy	Mucky Mineral (S1)		Vernal Pool	ls (F9)			wetland hydrology must be present.					
Sandy	Gleyed Matrix (S4)		_				unless dis	stributed or problematic				
Restrictive	Layer (if present):											
Type:												
Depth (i	nches):						Hydric Soil Pr	resent? Yes No No				
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface					
HYDROLO	ncv .											
	ydrology Indicators:						0	and ladicators (2 or soons as suited)				
	dicators (minimum of or	ne required; chec						ary Indicators (2 or more required)				
=	e Water (A1)	Ĺ	Salt Crust	` '				ter Marks (B1) (Riverine)				
l 🖳 🐧	/ater Table (A2)	Ĺ	Biotic Crus					diment Deposits (B2) (Riverine)				
l 🖳	tion (A3)	Ĺ	Aquatic In					t Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	· · · · =	Hydrogen		` '		= =	inage Patterns (B10)				
=	ent Deposits (B2) (Nor	· =	Oxidized F		_	-		-Season Water Table (C2)				
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)				
🗀	e Soil Cracks (B6)		Recent Iro			ed Soils (uration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	magery (B7)	Thin Muck	`	,			llow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	plain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse												
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):								
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		Wet	and Hydrology F	Present? Yes No •				
	apillary fringe) ecorded Data (stream	gauge monitorin	g well aerial	photos pr	evious inc		and Hydrology F	Present? Yes (No (•				
2000 IN	July Data (Strodill	34430, monitorin	e, acriar	μοιου, pi	J 71000 1110	r 0000113),	aranabio.					
Domortos												
Remarks:												
l												

Project/Site: The Valley's Edge			City/Co	ounty:Butte		Sam	pling Date:	1-14-15	
Applicant/Owner: B. Brouhard					State: CA Sampling Point: U12				
Investigator(s): D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 32, T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terrace	e		Local	relief (concave,	convex, none):non	ie	Slo	ope (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724324	ļ	Long:-121.7735	547	 Dati	um:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst		pes			NWI c	lassification	:Upland		
Are climatic / hydrologic conditions on th	1	•	ar? Ye	s (No (in in Remar				
		gnificantly			"Normal Circumstai		,	No ($\overline{}$
		iturally pro			eeded, explain any	·		,	
SUMMARY OF FINDINGS - Att	o, <u> </u>	, ,		,				eatures,	etc.
Hydrophytic Vegetation Present?		•							
Hydric Soil Present?		•		Is the Sampled	I Area				
Wetland Hydrology Present?	Yes No	No (a) within a Wetland? Yes (b) No (b)							
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.) 1		Absolute % Cover		es? Status	Number of Domin That Are OBL, FA	nant Specie	S	0 (A	A)
3					Total Number of Species Across A			3 (E	В)
4Sapling/Shrub Stratum	Total Cover:	%			Percent of Domir That Are OBL, F			0.0 % (A	A/B)
1.					Prevalence Inde	ex workshe	et:		
2.					Total % Cov	er of:	Multip	oly by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	45	x 4 =	180	
1.Elymus caput medusae		30	Yes	UPL	UPL species	55	x 5 =	275	(D)
2.Bromus hordeaceous		20	Yes	FACU	Column Totals:	100	(A)	455	(B)
3. Festuca microstachys		10	No	Not Listed	Prevalence	Index = B/	A =	4.55	
4. Centaurea solstitialis		15	No	Not Listed	Hydrophytic Ve	getation Inc	dicators:		
5. Erodium botrys		25	Yes	FACU	Dominance '				
6.					Prevalence I				
7					Morphologic	al Adaptatio emarks or o			g
8					- Problematic			,	
Woody Vine Stratum	Total Cover:	100%				, , ,	Ü	(
1					¹ Indicators of hybe present.	dric soil and	d wetland h	ydrology m	ıust
Z	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0	% Cover		Crust	%	Vegetation Present?	Yes 🔘	No (•	
Remarks:					•				

SOIL Sampling Point: $\underline{\text{U12}}$

Profile Des	cription: (Describe t	to the depth need	ded to docun	nent the i	indicator	or confirm	the absence of inc	dicators.)
Depth	Matrix			Features				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-6	2.5 YR 2.5/3	_100					Gravelly clay loam	
	-							
	-							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand Gr	ains ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs unie	es otherwise	noted)			Indicators for Pro	oblematic Hydric Soils: 3
Histoso		e to all Lixixs, unit	Sandy Redox				1 cm Muck (
	pipedon (A2)		Stripped Ma					A10) (LRR B)
	listic (A3)		Loamy Muc	, ,	l (F1)		Reduced Ve	, ,
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent I	Material (TF2)
Stratifie	ed Layers (A5) (LRR C	;)	Depleted Ma	atrix (F3)			Other (Expla	iin in Remarks)
	luck (A9) (LRR D)		Redox Dark	Surface	(F6)			
	ed Below Dark Surface	e (A11)	Depleted Da		` '		3 Indicators of hyd	drophytic vegetation and
	Oark Surface (A12)		Redox Depr	,	F8)			plogy must be present.
	Mucky Mineral (S1)		Vernal Pool	s (F9)				uted or problematic
	Gleyed Matrix (S4)						4555 4.545	
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Prese	ent? Yes No 💿
Remarks:								
HYDROLO	ncv							
	/drology Indicators:						Canadam. I	
	icators (minimum of or	ne required; check						ndicators (2 or more required)
Surface	e Water (A1)		Salt Crust	` ,			<u></u>	Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus	` ,			<u></u>	ent Deposits (B2) (Riverine)
Saturat	ion (A3)		Aquatic Inv	ertebrate/	es (B13)		<u></u>	eposits (B3) (Riverine)
Water I	Marks (B1) (Nonriveri	ne)	Hydrogen		` '			ge Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized R		-	_	` '	ason Water Table (C2)
Drift De	eposits (B3) (Nonriver	ine)	Presence		,	,	=	h Burrows (C8)
	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C	′ <u></u>	ion Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial Ir	magery (B7)	Thin Muck	Surface (C7)			v Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	lain in Re	marks)		FAC-Ne	eutral Test (D5)
Field Obse	rvations:							
Surface Wa	iter Present? Ye	es No	Depth (inc	ches):				
Water Table	e Present? Ye	es No	Depth (inc	ches):				
Saturation F	Present? Yeapillary fringe)	es O No •	Depth (inc	ches):		Wetla	and Hydrology Pres	sent? Yes O No •
`	ecorded Data (stream	gauge, monitoring	well, aerial r	photos, pr	evious ins			
	,		, , ,	, i		, ,,		
Remarks:								
. tomanto.								

Project/Site: The Valley's Edge		City/Count	y:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard				State: CA Sampling Point: U13_15_16				
Investigator(s): D. Machek, E. Gregg		Section, T	ownship, Ra	nge:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):conv	rex	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean California	Lat:39.	724324		Long:-121.77354	17	Datu	m:WGS 84	
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	opes			NWI cla	assification	Upland		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hydrology si	gnificantly	disturbed?	Are	"Normal Circumstan	ces" presei	nt? Yes	No 🔘	
		oblematic?		eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attach site map s			na noint le	ocations trans	ects imr	ortant fe	atures etc	
			ig point it	Journal of trains	, , , , , , , , , , , , , , , , , , ,	701141111111		
	• •		he Sampled		\circ	No 💿		
Remarks: This data sheet is to be used for the upland			hin a Wetlar VF 13, 15, a			NO 🛡		
r	r - r		-, -,					
VEGETATION								
	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test				
1.	70 00101	<u>- O</u>	<u> </u>	Number of Domin That Are OBL, FA			(A)	
2.				-			()	
3.				 Total Number of I Species Across A 		2	(B)	
4.				Percent of Domin				
Total Cover	: %			That Are OBL, FA			0 % (A/B)	
Sapling/Shrub Stratum 1.				Prevalence Index	worksho	at-		
2.				Total % Cove		Multiply	v bv:	
3.		-	-	OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum	40	3 7		UPL species	100	x 5 =	500	
1.Elymus caput medusae 2.Layia fremontii	$\frac{40}{15}$	Yes No	UPL	Column Totals:	100	(A)	500 (B)	
3.Festuca microstachys	$\frac{13}{30}$	Yes	NI Not Listed	Prevalence	Index = B/	A =	5.00	
4.Dodecatheon clevelandii ssp. patulum	15	$\frac{1 \text{ cs}}{\text{No}}$	Not Listed Not Listed	Hydrophytic Veg	etation Inc	licators:		
5.				Dominance T	est is >50%	6		
6.				Prevalence Ir				
7.				Morphologica	l Adaptatio	ns ¹ (Provide n a separate	supporting	
8.				- Problematic I			,	
Total Covers Woody Vine Stratum	100%			i iobicinatio i	туагоргтупс	vogotation	(Explain)	
<u> </u>				¹ Indicators of hyd	ric soil and	wetland hy	drology must	
1. 2.				be present.		•	0,	
Total Covers	%			Hydrophytic				
$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	of Biotic C	Crust	%	Vegetation Present?	Yes (No 💽)	
Remarks:							-	

SOIL Sampling Point: <u>U13_15_</u>

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features			T	5
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loan	1
	-							
	-							-
1- 0.6								21 Con Di Dana Linia M Marina
Type: C=C	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped M	atrix (S6)			2 cm Mud	ck (A10) (LRR B)
	Histic (A3)		Loamy Mu	•	, ,			Vertic (F18)
	en Sulfide (A4)	.,	Loamy Gle		(F2)			ent Material (TF2)
	ed Layers (A5) (LRR C luck (A9) (LRR D)	<i>(</i>)	Depleted Marked Redox Dar	` '	(F6)		Uther (E)	xplain in Remarks)
l	ed Below Dark Surface	e (A11)	Depleted D		. ,			
I Ш .	Dark Surface (A12)		Redox Dep		` '			hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				/drology must be present.
	Gleyed Matrix (S4)						uniess ais	tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; chec	k all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crus	t (B11)				ter Marks (B1) (Riverine)
<u> </u>	ater Table (A2)		Biotic Cru	. ,				iment Deposits (B2) (Riverine)
l 🖳	tion (A3)		= '	vertebrate				Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	·	= ' '	Sulfide O	. ,		= =	nage Patterns (B10)
l <u>—</u>	ent Deposits (B2) (Nor	· _	=	Rhizosphe	_	_	` / 📙	Season Water Table (C2)
🖳	eposits (B3) (Nonriver e Soil Cracks (B6)	ine)	=	of Reduce on Reducti				/fish Burrows (C8) uration Visible on Aerial Imagery (C9)
l <u>—</u>	tion Visible on Aerial I	mageny (B7)	=	s Surface (eu solis (· <u></u>	llow Aquitard (D3)
	Stained Leaves (B9)	magery (Br)	=	plain in Re	,			C-Neutral Test (D5)
Field Obse	. ,	L		p.a				
		es O No 💿	Depth (ir	nches):				
Water Table		es No 💿	Depth (ir	<i>′</i> —				
Saturation F		es O No 💿	Depth (ir	· · · · · · · · · · · · · · · · · · ·				
(includes ca	apillary fringe)						land Hydrology F	Present? Yes O No •
Describe Re	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Domest								
Remarks:								

Project/Site: The Valley's Edge		City/County:Butte		Samp	ling Date: $1-1$	4-15
Applicant/Owner: B. Brouhard			State:CA	Samp	ling Point:U1	4
Investigator(s):D. Machek, E. Gregg	(Section, Township, Ra	ange:S 32, T 22N, I	 R 2E		
Landform (hillslope, terrace, etc.): terrace		Local relief (concave,	convex, none):conv	ex	Slope	(%):3
Subregion (LRR):C - Mediterranean California	Lat:39.72	24324	Long:-121.77354	 17		WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 pero				assification:U		
Are climatic / hydrologic conditions on the site typical	*	r? Yes No (_	•	
	significantly of		"Normal Circumstand		,	No 🔿
	0 ,			•		NO (
Are Vegetation Soil or Hydrology	naturally prob	olematic? (If n	eeded, explain any a	nswers in Re	∍marks.)	
SUMMARY OF FINDINGS - Attach site I	map showing s	sampling point I	ocations, transe	ects, impo	ortant feati	ures, etc.
Hydrophytic Vegetation Present? Yes	No 💿					
Hydric Soil Present? Yes	No (Is the Sample	d Area			
Wetland Hydrology Present? Yes	No 💿	within a Wetla		\bigcirc N	lo 💿	
Remarks:						
VEGETATION						
		Dominant Indicator	Dominance Test	worksheet:		
Tree Stratum (Use scientific names.)	<u>% Cover</u> _	Species? Status	Number of Domina		0	
1			That Are OBL, FA	CW, or FAC	0	(A)
2			Total Number of D			
3.			Species Across Al	ll Strata:	4	(B)
4			Percent of Domina			
Sapling/Shrub Stratum	Il Cover: %		That Are OBL, FA	CW, or FAC	0.0	% (A/B)
1.			Prevalence Index	worksheet		
2.			Total % Cove	r of:	Multiply b	y:
3.			OBL species		x 1 =	0
4.			FACW species		x 2 =	0
5			FAC species		x 3 =	0
	I Cover: %		FACU species	13	x 4 =	180
Herb Stratum	<i>~</i> .	.T	UPL species	55	x 5 =	275
1.Agoseris heterophylla		Not Listed	Column Totals:	100	(A)	455 (B)
2. Elymus caput medusae		Yes UPL	Prevalence I	index = B/A	=	4.55
3.Festuca microstachys 4.Erodium botrys		Yes Not Listed FACU	Hydrophytic Veg			
5.Bromus hordeaceous		Yes FACU	Dominance T			
6.		TCS FACE	Prevalence In	idex is ≤3.0¹		
7.			Morphologica	l Adaptations	s¹ (Provide su	pporting
8.					a separate sh	,
	Cover: 100%		Problematic F	lydrophytic \	/egetation ¹ (E	xplain)
Woody Vine Stratum	100%					
1			¹ Indicators of hydbe be present.	ric soil and v	wetland hydro	ology must
2			_			
Tota	I Cover: %		Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0 % %	Cover of Biotic Cr	ust %	Present?	Yes 🔘	No 💿	
Remarks:						

SOIL Sampling Point: $\underline{U14}$

Profile De	scription: (Describe t	to the depth nee	eded to docu	ment the i	indicator	or confirn	n the absence of	indicators.)			
Depth	Matrix			x Features			.				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-6	2.5 YR 2.5/3	_100					Gravelly clay loam				
								·			
	<u> </u>										
	_										
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Histos	Indicators: (Applicabl	e to all LRRs, un	Sandy Redo					Problematic Hydric Soils: ³ k (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped M	, ,				k (A10) (LRR B)			
🖳	Histic (A3)		Loamy Mud	. ,	ıl (F1)			Vertic (F18)			
l <u> </u>	gen Sulfide (A4)	-	Loamy Gle					nt Material (TF2)			
	ed Layers (A5) (LRR C	;)	Depleted M	•	(- (- –)			plain in Remarks)			
	/luck (A9) (LRR D)	´	Redox Darl	, ,	(F6)			,			
	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	e (F7)						
Thick I	Dark Surface (A12)		Redox Dep	ressions (F8)			nydrophytic vegetation and			
Sandy	Mucky Mineral (S1)	Ī	Vernal Poo	ls (F9)			wetland hydrology must be present.				
	Gleyed Matrix (S4)						unless dist	ributed or problematic			
Restrictive	e Layer (if present):										
Type:											
Depth (i	inches):						Hydric Soil Pro	esent? Yes No No			
Remarks:											
HYDROL	OGY										
	ydrology Indicators:										
	dicators (minimum of or	ne required: che	rk all that ann	lv)			Secondar	ry Indicators (2 or more required)			
	e Water (A1)	ric required, cric	Salt Crust	*				er Marks (B1) (Riverine)			
l ==	` ,	Ĺ		` '				ment Deposits (B2) (Riverine)			
l <u>□</u>	Vater Table (A2)	L	Biotic Cru		- (D40)			Deposits (B3) (Riverine)			
🖳	tion (A3)		Aquatic In					nage Patterns (B10)			
l ==	Marks (B1) (Nonriveri		Hydrogen		` '	Listaa Dar	= =	Season Water Table (C2)			
=	ent Deposits (B2) (Nor				res along	_		` '			
l <u>—</u>	eposits (B3) (Nonriver	ine)	=		ed Iron (C4	,		fish Burrows (C8)			
=	e Soil Cracks (B6)	(57)			on in Plow	rea Solis (ration Visible on Aerial Imagery (C9)			
=	ation Visible on Aerial I	magery (B7)	Thin Muck	,	,			low Aquitard (D3)			
	-Stained Leaves (B9)	L	Other (Exp	plain in Re	emarks)		FAC	-Neutral Test (D5)			
Field Obse		O 11 O	D 41 (1								
		es No 💿		· —							
Water Tab	le Present? Ye	es No 💿	Depth (in	ches):							
Saturation	Present? Ye apillary fringe)	es 🔘 No 💽	Depth (in	ches):		Wetl	and Hydrology P	resent? Yes No			
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins						
	`					, ,.					
Remarks:											

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:U17		
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conv	ex	Slop	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.77601	17	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			assification	ssification:Upland			
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (• No((If no, explain	n in Remar	 ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed'	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (
			oblematic?		eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	ects, imp	oortant fea	atures, e	etc.
		•			·	•			
Hydrophytic Vegetation Present? Hydric Soil Present?		•	le i	the Sample	d Aroa				
Wetland Hydrology Present?	_	•		thin a Wetla		\bigcirc	No 💿		
Remarks:				iiiii a wona	103		110		
VEGETATION									
		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)	<u>o</u>	% Cover	Species?	Status	Number of Domin	ant Specie	S		
1				_	That Are OBL, FA	CW, or FA	C: 0	(A	١)
2. 3.					Total Number of D Species Across A		3	(B	3)
4.					Percent of Domina	ant Snacia	e		
Conling/Chrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A	/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshe	et·		
2.					Total % Cove		Multiply	v bv:	
3.				-	OBL species		x 1 =	0	
4.				-	FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	50	x 4 =	200	
Herb Stratum					UPL species	50	x 5 =	250	
1. Elymus caput medusae		40	Yes	UPL	Column Totals:	100	(A)	450	(B)
2.Erodium botrys		20	Yes	FACU	Prevalence	Indox - B/	Λ _	4.50	
3.Layia fremontii		5	No	Not Listed	Hydrophytic Veg			4.30	
4 Bromus hordeaceous		30	Yes	FACU	Dominance T				
5. Centaurea solstitialis		5	No	Not Listed	Prevalence Ir				
6. 				-	Morphologica			supporting	נ
8.				-	data in Re	marks or o	n a separate	sheet)	•
	Total Cover:	100%		-	Problematic F	Hydrophytic	Vegetation ¹	(Explain)	
Woody Vine Stratum		100%							
1 2.					¹ Indicators of hyd be present.	ric soil and	d wetland hyd	drology mu	ust
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum	% Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 🖲)	
Remarks:					_				

SOIL Sampling Point: $\underline{U17}$

Profile Des	scription: (Describe t	to the depth nee	ded to docur	ment the i	indicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-12	2.5 YR 2.5/3	_100					Clay loam					
								_				
	-											
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.				
								3				
	Indicators: (Applicabl	e to all LRRs, unl	_					Problematic Hydric Soils: 3				
Histoso			Sandy Redo	` '				ck (A9) (LRR C)				
	Epipedon (A2) Histic (A3)		Stripped Ma	. ,	J (E1)			ck (A10) (LRR B) Vertic (F18)				
	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)				
	ed Layers (A5) (LRR C	:)	Depleted M		(1 2)			xplain in Remarks)				
	Muck (A9) (LRR D)	"	Redox Dark		(F6)			in terraine,				
	ed Below Dark Surface	e (A11)	Depleted D									
Thick [Dark Surface (A12)	` '	Redox Dep	ressions (F8)			hydrophytic vegetation and				
Sandy	Mucky Mineral (S1)		Vernal Pool	ls (F9)			wetland hydrology must be present.					
Sandy	Gleyed Matrix (S4)		_				unless dis	stributed or problematic				
Restrictive	Layer (if present):											
Type:												
Depth (i	nches):						Hydric Soil Pr	resent? Yes No No				
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface					
HYDROLO	ncv .											
	ydrology Indicators:						0	and ladicators (2 or soons as suited)				
	dicators (minimum of or	ne required; chec						ary Indicators (2 or more required)				
=	e Water (A1)	Ĺ	Salt Crust	` '				ter Marks (B1) (Riverine)				
l 🖳 🐧	/ater Table (A2)	Ĺ	Biotic Crus					diment Deposits (B2) (Riverine)				
l 🖳	tion (A3)	Ĺ	Aquatic In					t Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	· · · · =	Hydrogen		` '		= =	inage Patterns (B10)				
=	ent Deposits (B2) (Nor	· =	Oxidized F		_	-		-Season Water Table (C2)				
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)				
🗀	e Soil Cracks (B6)		Recent Iro			ed Soils (uration Visible on Aerial Imagery (C9)				
	tion Visible on Aerial In	magery (B7)	Thin Muck	`	,			llow Aquitard (D3)				
	Stained Leaves (B9)		Other (Exp	plain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse												
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):								
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		Wet	and Hydrology F	Present? Yes No •				
	apillary fringe) ecorded Data (stream	gauge monitorin	g well aerial	photos pr	evious inc		and Hydrology F	Present? Yes (No (•				
2000 IN	July Data (Strodill	34430, monitorin	e, acriar	μοιου, pi	J 71000 1110	r 0000113),	aranabio.					
Domortos												
Remarks:												
l												

Project/Site: The Valley's Edge	ounty:Butte		Sa	mpling Date	:1-14-15					
Applicant/Owner:B. Brouhard					State:CA	Saı	Sampling Point:U18			
Investigator(s):D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 32, T 22	N, R 2E				
Landform (hillslope, terrace, etc.): terrace	<u>, </u>		Local	relief (concave,	convex, none):co	onvex	S	lope (%):3		
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	724387	1	Long:-121.776017 Datum:WGS 84					
Soil Map Unit Name: Doemill-Jokerst,		pes			_ NW	l classificatio	n:Upland			
Are climatic / hydrologic conditions on the	1	•	ear? Ye	es (• No (olain in Rema				
		gnificantly			'Normal Circums		, , , , , , , , , , , , , , , , , , ,	No	\bigcirc	
		aturally pro			eded, explain ar	·		,		
SUMMARY OF FINDINGS - Atta	o, <u> </u>	, ,		,				eatures,	etc.	
Hydrophytic Vegetation Present?		•			<u> </u>					
Hydric Soil Present?		•		Is the Sampled	l Area					
Wetland Hydrology Present?	Yes No	•		within a Wetlar		es 🔘	No 💿			
VEGETATION										
VEGETATION		A book ito	Domin	ant Indicator	Deminence T	a at vya ulsah a	a4.			
Tree Stratum (Use scientific names.) 1		Absolute % Cover		nant Indicator es? Status	Number of Do That Are OBL,	minant Speci	es	0	(A)	
3.					Total Number Species Acros			3	(B)	
4. Sapling/Shrub Stratum	Total Cover:	%			Percent of Dor That Are OBL,			0.0 %	(A/B)	
1.					Prevalence In	dex worksh	eet:			
2.					Total % C	over of:	Multi	ply by:	_	
3.					OBL species		x 1 =	0		
4.					FACW species	5	x 2 =	0		
5					FAC species		x 3 =	0		
Herb Stratum	Total Cover:	%			FACU species	20	x 4 =	200		
1.Elymus caput medusae		35	Yes	UPL	UPL species	50	x 5 =	250	(D)	
2. Erodium botrys		25	Yes	FACU	Column Totals	100	(A)	450	(B)	
3. Festuca microstachys		15	No	Not Listed	Prevalen	ce Index = E	3/A =	4.50		
4. Bromus hordeaceous		25	Yes	FACU	Hydrophytic	egetation Ir	ndicators:			
5.						e Test is >50				
6.						e Index is ≤3 gical Adaptati		la sunnortii	na	
7					- data in	Remarks or	on a separa	te sheet)	iig	
8	Total Cover:	100%			Problema	tic Hydrophyt	ic Vegetatio	n¹ (Explain)	
Woody Vine Stratum 1					¹ Indicators of be present.	hydric soil ar	nd wetland h	nydrology r	must	
2	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum 0	% % Cover		Crust	%	Vegetation Present?	Yes C	No (•		
Remarks:					<u> </u>					

SOIL Sampling Point: $\underline{U18}$

Profile Des	scription: (Describe	to the depth nee				or confirn	n the absence of inc	dicators.)
Depth (inches)	Matrix	0/ 0-1		x Features		1002	Toytura	Domorto
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
	_							
	_							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	 S=Covere	d or Coate	d Sand G	rains ² Lo	ocation: PL=Pore Lining, M=Matrix.
1900. 0=0	Concentration, D-Dept	otion, ravi–rada	oca matrix. O	0-0010101	a or ooalo	a cana ci	-	g,a
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwise	e noted.)			Indicators for Pro	oblematic Hydric Soils: 3
Histoso	. ,		Sandy Redo	, ,			1 cm Muck ((A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,	1 (54)			(A10) (LRR B)
	Histic (A3) gen Sulfide (A4)		Loamy Mud	-	, ,		Reduced Ve	επις (F18) Material (TF2)
	ed Layers (A5) (LRR C	<u></u>	Depleted M	•	(1-2)			ain in Remarks)
	Muck (A9) (LRR D)	'' <u> </u>	Redox Dar	. ,	(F6)			an in resinging,
	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	e (F7)		o la diantara af h	donale, dia constation and
	Dark Surface (A12)		Redox Dep	•	F8)			drophytic vegetation and ology must be present.
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				outed or problematic
	Gleyed Matrix (S4) Layer (if present):						4000 4.040	erea er presioniale
Type:	e Layer (ir present):							
Depth (i	nchoc):						Hydric Soil Pres	ent? Yes No 💿
	Bedrock located at 1	2 inches large	amounts of	lava rocl	z scattere	d near cu	*	ent: Tes No (e)
rtomanto. 1	section tocated at 1	2 menes, rarge	uniounts of	14 14 1001	x seattere	a near sa	irucc	
HYDROL								
	ydrology Indicators:							
	dicators (minimum of o	ne required; chec	k all that app	ly)				Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust					Marks (B1) (Riverine)
l <u> </u>	/ater Table (A2)	Ĺ	Biotic Cru					ent Deposits (B2) (Riverine)
	tion (A3)	. [Aquatic In		,			eposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	· '	Hydrogen		` '	Lista a Dar	=	ge Patterns (B10) ason Water Table (C2)
	ent Deposits (B2) (Nor	′ =	=		res along ed Iron (C4	_	(,	h Burrows (C8)
l <u>=</u>	eposits (B3) (Nonriver e Soil Cracks (B6)	ille)			on in Plow	,		tion Visible on Aerial Imagery (C9)
==	tion Visible on Aerial I	L magery (B7)	Thin Muck			rea Solis (′ <u></u>	v Aquitard (D3)
l <u>—</u>	Stained Leaves (B9)		Other (Ex	`	,			eutral Test (D5)
Field Obse		L						
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):				
Water Tabl	e Present? Yo	es No 💿	Depth (in	ches):				
Saturation	_	es O No 💿	Depth (in	· -				
(includes ca	apillary fringe)				ouderre to		and Hydrology Pres	sent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorin	ig weii, aeriai	pnotos, pr	evious ins	pections),	if available:	
Domortic								
Remarks:								

Project/Site: The Valley's Edge			City/C	ounty:Butte			San	npling Date:	1-14-15	
Applicant/Owner: B. Brouhard					Sta	ate:CA	Sam	npling Point:	U19	
Investigator(s):D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 32,	T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terrace			Local	relief (concave,	convex, no	one):con	vex	Slo	ope (%): 3	
Subregion (LRR):C - Mediterranean Californ	iia	 Lat:39.7	72438′	7	Long:-1	$21.7\overline{760}$	17	——— Dati	um:WGS 8	4
Soil Map Unit Name: Doemill-Jokerst, 3 to 8		es —				NWI cl	assification	:Upland		
Are climatic / hydrologic conditions on the site ty			ear? Y	es (•) No () (If	– no. explai	n in Remai	·ks.)		
Are Vegetation Soil or Hydrology	·	nificantly						nt? Yes (•	No ()
Are Vegetation Soil or Hydrology		urally pro					answers in		,	
SUMMARY OF FINDINGS - Attach s						•		,	eatures, e	etc.
Hydrophytic Vegetation Present? Yes						•		'	·	
Hydric Soil Present? Yes	_			Is the Sampled	l Area					
Wetland Hydrology Present? Yes		•		within a Wetlan		Yes		No 💿		
Remarks:										
VEGETATION										
		solute		nant Indicator	Domina	nce Test	workshee	et:		
Tree Stratum (Use scientific names.)	<u>%</u>	Cover	Spec	ies? Status			ant Specie			
1					That Are	e OBL, FA	ACW, or FA	C: ((A)	.)
2							Dominant			
3					Species	Across A	II Strata:		3 (B))
4	T-1-1-0	0/	_				ant Specie			
Sapling/Shrub Stratum	Total Cover:	%			That Are	e OBL, FA	ACW, or FA	C: 0	.0 % (A/	/B)
1.					Prevale	nce Inde	x workshe	et:		
2.				<u></u>	Tota	al % Cove	er of:	Multip	ly by:	
3.					OBL spe			x 1 =	0	
4					FACW			x 2 =	0	
5					FAC spe			x 3 =	0	
Herb Stratum	Total Cover:	%			FACU s	•	20	x 4 =	80	
1.Elymus caput medusae		50	Yes	UPL	UPL spe	ecies	80	x 5 =	400	
2-Layia fremontii		10	$\frac{1es}{No}$	NI	Column	Totals:	100	(A)	480	(B)
3. Festuca microstachys		20	Yes	Not Listed	Pr	evalence	Index = B/	/A =	4.80	
4. Erodium botrys		20	Yes	FACU	Hydrop	hytic Ve	getation In	dicators:		
5.					Dor	minance 1	Test is >509	%		
6.				 -	Pre	valence l	ndex is ≤3.0	O ¹		
7.									e supporting	i
8.								n a separat		
	Total Cover:	100%		<u></u>	- L Pro	biematic	Hydropnytic	c Vegetation	(Explain)	
Woody Vine Stratum					1Indicate	ore of by	dric soil and	d wetland h	ydrology mu	ıct
1					be pres		inc son an	u welland n	yarology illa	131
2	Total Cover:	%			Hydrop					
% Bare Ground in Herb Stratum0 %	% Cover of	Biotic C	Crust _	%	Vegetat Present		Yes 🔘	No (
Remarks:					-1					

SOIL Sampling Point: $\underline{U19}$

Profile Desc	cription: (Describe t	to the depth need	led to docur	nent the i	indicator	or confirn	n the absence of in	dicators.)
Depth	Matrix			Features		1 - 2	Tarata	Dec
(inches)	Color (moist)		r (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
¹ Type: C=C	concentration, D=Depl	etion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand G	rains ² L	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applicable	e to all LRRs, unle	ss otherwise	noted.)			Indicators for Pr	oblematic Hydric Soils: 3
Histosol			Sandy Redo	-				(A9) (LRR C)
	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck	(A10) (LRR B)
	istic (A3)		Loamy Muc				Reduced V	
	en Sulfide (A4)		Loamy Gley		(F2)			Material (TF2)
	d Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(Fc)		Other (Expl	ain in Remarks)
	uck (A9) (LRR D) d Below Dark Surface	Δ(Δ11)	Redox Dark Depleted Da		` '			
	ark Surface (A12)	(A11)	Redox Depi		. ,		3 Indicators of hy	drophytic vegetation and
	Mucky Mineral (S1)		Vernal Pool		. 0)		wetland hyd	rology must be present.
	Gleyed Matrix (S4)			,			unless distri	buted or problematic
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes ○ No ●
Remarks: B	edrock located at 1	2 inches, large	amounts of	lava rock	scattere	d near su	ırface	
HYDROLO								
_	drology Indicators:						0 1	1 1 4 6
	cators (minimum of or	ne required; checl						Indicators (2 or more required)
=	Water (A1)		Salt Crust	` '				Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus					nent Deposits (B2) (Riverine)
Saturati	` ,	L	Aquatic In		` '			eposits (B3) (Riverine)
	Marks (B1) (Nonriveri		Hydrogen		, ,			age Patterns (B10)
	nt Deposits (B2) (Nor	, <u></u>	Oxidized F		_	-	(/	eason Water Table (C2)
	posits (B3) (Nonriver	ine)	Presence		,	,	=	sh Burrows (C8)
	Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (ation Visible on Aerial Imagery (C9)
\sqsubseteq	ion Visible on Aerial Ir	magery (B7)	Thin Muck	,	,		=	w Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	lain in Re	marks)		FAC-N	Neutral Test (D5)
Field Obser		O O	5 (1					
Surface Wat		es No	Depth (in	· —				
Water Table		es No	Depth (in	· —				
	pillary fringe)	es No •	Depth (in		:		land Hydrology Pre	esent? Yes O No •
Describe Re	ecorded Data (stream	gauge, monitorino	, weii, aerial j	אוטנטs, pr	evious ins	pections),	ıı avallable:	
Domenlini								
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:U20		
Investigator(s):D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):none	2	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	724387		Long:-121.7760	17	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			assification	ssification:Upland			
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	vdrology sig	gnificantly	disturbed	? Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No (\bigcirc
Are Vegetation Soil or Hy	/drology	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att	tach site map sl	howing	sampli	ng point l	ocations, trans	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test				
1.	_				Number of Domin That Are OBL, FA			(,	(A)
2.					Total Number of [Onminant			
3.					Species Across A		4	1)	(B)
4				_	Percent of Domin	ant Species	3		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0	0 % (A	A/B)
1.					Prevalence Inde	k workshe	et:		
2.					Total % Cove	er of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5	Tatal Carran	0/			FAC species FACU species	45	x 3 = x 4 =	190	
Herb Stratum	Total Cover:	%			UPL species	45 55	x 4 = x 5 =	180 275	
1 Elymus caput medusae		30	Yes	UPL	Column Totals:	100	(A)	455	(B)
2.Layia fremontii		5	No	NI			, ,		(2)
3.Bromus hordeaceous		20	Yes	FACU	Prevalence			4.55	
4. Centaurea solstitialis		20	Yes	Not Listed	Hydrophytic Veg				
5. Erodium botrys		25	Yes	FACU	Dominance T Prevalence Ir				
6.					Morphologica			eupportin	n C
7					- data in Re	marks or o	n a separate	sheet)	9
8	Total Cover:	100			Problematic I	- Hydrophytic	Vegetation ¹	(Explain)	1
Woody Vine Stratum	rotal Gover.	100%							
1.				_	¹ Indicators of hydbe be present.	ric soil and	d wetland hy	drology m	ıust
2	Total Cover:	%		-	Hydrophytic				
% Bare Ground in Herb Stratum 0) % % Cover o		Crust	%	Vegetation Present?	Yes 〇	No 🖲	<u>'</u>)	
Remarks:									

SOIL Sampling Point: $\underline{U20}$

Profile Des	scription: (Describe t	to the depth nee	ded to docur	ment the i	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3	_100					Clay loam	
								_
	-							
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. CS	S=Covere	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.
								3
	Indicators: (Applicabl	e to all LRRs, unl	_					Problematic Hydric Soils: 3
Histoso			Sandy Redo	` '				ck (A9) (LRR C)
	Epipedon (A2) Histic (A3)		Stripped Ma	. ,	J (E1)			ck (A10) (LRR B) Vertic (F18)
	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted M		(1 2)			xplain in Remarks)
	Muck (A9) (LRR D)	"	Redox Dark		(F6)			in terraine,
	ed Below Dark Surface	e (A11)	Depleted D					
Thick [Dark Surface (A12)	` '	Redox Dep	ressions (F8)			hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Pool	ls (F9)				ydrology must be present.
Sandy	Gleyed Matrix (S4)		_				unless dis	stributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Pr	resent? Yes No No
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface	
HYDROLO	ncv .							
	ydrology Indicators:						0	and ladicators (2 or soons as suited)
	dicators (minimum of or	ne required; chec						ary Indicators (2 or more required)
=	e Water (A1)	Ĺ	Salt Crust	` '				ter Marks (B1) (Riverine)
l 🖳 🐧	/ater Table (A2)	Ĺ	Biotic Crus					diment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					t Deposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	· · · · =	Hydrogen		` '		= =	inage Patterns (B10)
=	ent Deposits (B2) (Nor	· =	Oxidized F		_	-		-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)
🗀	e Soil Cracks (B6)		Recent Iro			ed Soils (uration Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	magery (B7)	Thin Muck	`	,			llow Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	plain in Re	marks)		FAC	C-Neutral Test (D5)
Field Obse								
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):				
Water Tabl	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):		Wet	and Hydrology F	Present? Yes No •
	apillary fringe) ecorded Data (stream	gauge monitorin	g well aerial	photos pr	evious inc		and Hydrology F	Present? Yes (No (•
2000 IN	July Data (Strodill	34430, monitorin	e, acriar	μοιου, pi	J 71000 1110	, colloi13),	aranabio.	
Domortos								
Remarks:								
l								

Project/Site: The Valley's Edge			City/Cour	nty:Butte		Sam	npling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	J21	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	ee		Local rel	ief (concave,	convex, none):conv	ex	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean C	 California	Lat:39.7		•	Long:-121.77545			m:WGS	84
Soil Map Unit Name: Doemill-Jokerst					_	assification			
Are climatic / hydrologic conditions on th	· •	•	ar? Vec	No (
					"Normal Circumstan		,	No (\circ
			disturbed					NO (
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	? (If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sh	nowing	sampli	ng point l	ocations, transe	ects, imp	oortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No		le	the Sample	d Δrea				
Wetland Hydrology Present?	Yes No	_		ithin a Wetla		\bigcirc	No 💿		
Remarks:				iliiii a wolla	103		110		
VEGETATION									
Trans Otractica (III and a single Control of		Absolute		nt Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species	? Status	Number of Domin				(4)
1			-		That Are OBL, FA	CVV, OF FA	C: 0	((A)
2. 3.					Total Number of D		2		(D)
4.				<u> </u>	Species Across A	ii Strata:	3		(B)
	Total Cover:	%		- -	Percent of Domina That Are OBL, FA) a. ((
Sapling/Shrub Stratum	Total Cover.	70			That Are OBL, FA	CVV, OI FA	C. 0.0) % ((A/B)
1					Prevalence Index	workshe	et:		
2			-		Total % Cove	r of:	Multiply		
3				_	OBL species		x 1 =	0	
4					FACW species	5	x 2 =	10	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	60	x 4 =	240	
1.Erodium botrys		30	Yes	FACU	UPL species	35	x 5 =	175	(D)
2.Blennosperma nanum		5	No	FACW	Column Totals:	100	(A)	425	(B)
3. Layia fremontii		5	No	NI	Prevalence	Index = B/	A =	4.25	
4. Bromus hordeaceous		30	Yes	FACU	Hydrophytic Veg	etation In	dicators:		
5.Elymus caput medusae		20	Yes	UPL	Dominance T	est is >50%	6		
6.Festuca sp.		10	No	Not Listed	Prevalence Ir				
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supportin	าg
8.					data in Re		n a separate		`
	Total Cover:	100%			- Displaying F	туагорпуш	vegetation	(Explain))
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hy	drology n	nuet
1					be present.	no son and	a welland hy	alology II	iiust
2	Total Cover:	%		_	Hydrophytic				
					Vegetation				
) % Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🗨	1	
Remarks:				<u></u>				·	

SOIL Sampling Point: $\underline{\text{U21}}$

Profile Des	scription: (Describe	to the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of ind	icators.)
Depth (inches)	Matrix	0/ 0-1		x Features	Tuno	1002	Toyture	Domorto
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²		Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loam	
	_							
	_							
	-							
1 _{Tupo: C-4}	Concentration, D=Depl	lotion PM-Rodus	and Matrix C		d or Cooto			cation: PL=Pore Lining, M=Matrix.
Type: C=0	Concentration, D=Depi	ietion, Rivi=Reduc	ced Matrix. C	S=Covere	u or Coale	a Sana G	rains Loc	ation. FL=Fore Limity, W=Wathx.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwise	e noted.)			Indicators for Pro	olematic Hydric Soils: 3
Histose		,	Sandy Redo	-			1 cm Muck (A	
Histic I	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck (A	10) (LRR B)
	Histic (A3)		Loamy Mud				Reduced Ver	
	gen Sulfide (A4)	.,	Loamy Gle		(F2)		Red Parent M	, ,
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	. ,	(E6)		Other (Explai	n in Remarks)
	/luck (A9) (LRR D) ed Below Dark Surface	(A11)	Depleted D		. ,			
· — ·	Dark Surface (A12)	[Redox Dep		. ,			rophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	,			ogy must be present.
	Gleyed Matrix (S4)		_	, ,			unless distribu	ted or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	·						Hydric Soil Prese	nt? Yes No •
Remarks: I	Bedrock located at 6	inches, large a	mounts of 1	ava rock	scattered	near sur	face.	
HYDROL	OGY							
Wetland H	ydrology Indicators:							
Primary Inc	dicators (minimum of o	ne required; chec	k all that app	ly)			Secondary Ir	dicators (2 or more required)
Surfac	e Water (A1)	Γ	Salt Crust	(B11)			Water N	Marks (B1) (Riverine)
High W	Vater Table (A2)	Ī	Biotic Cru				Sedime	nt Deposits (B2) (Riverine)
Satura	tion (A3)	Ī	Aquatic In	vertebrate	es (B13)		Drift Dep	oosits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drainage	e Patterns (B10)
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	res along	Living Roo	ots (C3) Dry-Sea	son Water Table (C2)
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	1)	Crayfish	Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent Iro	on Reducti	on in Plow	ed Soils (C6) Saturation	on Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface (C7)		Shallow	Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC-Ne	utral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · ·				
Water Tabl	_	es No 💿	Depth (in	· —				
Saturation (includes care	Present? Υα apillary fringe)	es No 💿	Depth (in	iches):		Wetl	and Hydrology Pres	ent? Yes O No 💿
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			
Remarks:								
ĺ								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J22	
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local relie	ef (concave,	convex, none):none	;	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	725346		Long:-121.77005	50	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ar? Yes (• No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed?	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	samplir	ng point l	ocations, transe	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		ls t	he Sample	d Area				
Wetland Hydrology Present?	Yes No	•		hin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
	Α	bsolute	Dominant	Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)	<u>0</u>	% Cover	Species?	Status	Number of Domin	ant Specie	S		
1					That Are OBL, FA	CW, or FA	C: 0		(A)
2					Total Number of D				
3					Species Across A	II Strata:	2		(B)
4		0/			Percent of Domina			0	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: ().	0 % ((A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	_
3				_	OBL species		x 1 =	0	
4				_	FACW species		x 2 =	0	
5					FACILIAN SIGN	2.7	x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	25	x 4 = x 5 =	100	
1.Elymus caput medusae		45	Yes	Not Listed		75		375	(D)
2. Erodium cicutarium		15	No	Not Listed	Column Totals:	100	(A)	475	(B)
3. Bromus hordeaceous		25	Yes	FACU	Prevalence	Index = B/	A =	4.75	
4. Centaurea solstitialis		15	No	Not Listed	Hydrophytic Veg				
5.					Dominance T				
6					Prevalence Ir				
7				_	Morphologica data in Re	n Adaptation	ns" (Provide n a separate	supportir sheet)	ng
8					Problematic F			,	.)
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hyd	ric soil and	d wetland hy	drology r	nust
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 0	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 🖲)	
Remarks:	 _				l				

SOIL Sampling Point: $\underline{U22}$

Depth	(2000) 100 10 1110 0	eptii needed	to document the	e indicator of	or confirm	the absence of ind	icators.)
	Matrix		Redox Featur				
(inches) Colo	or (moist) %	Color (n	noist) %	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-142.5 YR	2.5/3 100					Gravelly clay loam	
		_					_
		_					
		_					
Type: C=Concentra	ation, D=Depletion, R	— ———— IM=Reduced I	Matrix. CS=Cover	ed or Coate	d Sand Gr	ains ² Lo	cation: PL=Pore Lining, M=Matrix.
	, , ,						
Hydric Soil Indicator	s: (Applicable to all	LRRs, unless	otherwise noted.)			Indicators for Pro	blematic Hydric Soils: 3
Histosol (A1)			ndy Redox (S5)			1 cm Muck (/	* * *
Histic Epipedon	' '		ripped Matrix (S6				A10) (LRR B)
Black Histic (A3)			amy Mucky Mine	. ,		Reduced Ver	
Hydrogen Sulfid			amy Gleyed Matr	, ,			Material (TF2)
Stratified Layers	. , .		epleted Matrix (F3 edox Dark Surface	,		Uther (Expla	in in Remarks)
1 cm Muck (A9)	Dark Surface (A11)		epleted Dark Surface	` '			
Thick Dark Surfa	, ,		edox Depressions	` '		3 Indicators of hyd	rophytic vegetation and
Sandy Mucky M	, ,		ernal Pools (F9)	, (i O)		wetland hydro	logy must be present.
Sandy Gleyed M						unless distrib	uted or problematic
Restrictive Layer (in							
Type:							
Depth (inches):						Hydric Soil Prese	ent? Yes No •
Remarks:							
HYDROLOGY							
Wetland Hydrology						0	r
Primary Indicators (n	-	ired; check all	that apply)				ndicators (2 or more required)
Surface Water (A1)	<u></u>	Salt Crust (B11)				the state of the s
	I= (AO)		1'-1'- O (D40)				Marks (B1) (Riverine)
High Water Tab	ie (AZ)		Biotic Crust (B12)			Sedime	Marks (B1) (Riverine) nt Deposits (B2) (Riverine)
High Water Table Saturation (A3)	ie (A2)		Notic Crust (B12) Nquatic Invertebra	tes (B13)		Sedime Drift De	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine)
Saturation (A3) Water Marks (B	1) (Nonriverine)	<i>A</i>	Aquatic Invertebra Hydrogen Sulfide	Odor (C1)		Sedime Drift De	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10)
Saturation (A3) Water Marks (B		<i>A</i>	Aquatic Invertebra	Odor (C1)	Living Roo	Sedime Drift De Drainag ts (C3) Dry-Sea	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2)
Saturation (A3) Water Marks (B) Sediment Depos Drift Deposits (B)	1) (Nonriverine) sits (B2) (Nonriverin 33) (Nonriverine)	e)	Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu	Odor (C1) neres along ced Iron (C4	1)	Sedime Drift De Drainag ts (C3) Crayfish	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) a Burrows (C8)
Saturation (A3) Water Marks (B' Sediment Deposits (B' Drift Deposits (E' Surface Soil Cra	1) (Nonriverine) sits (B2) (Nonriverin 33) (Nonriverine) acks (B6)	e)	Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc	Odor (C1) neres along ced Iron (C4 ction in Plow	1)	Sedime Drift De Drainag ts (C3) Crayfish C6) Saturati	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9)
Saturation (A3) Water Marks (B Sediment Depos Drift Deposits (B Surface Soil Cra	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery	e)	Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3)
Saturation (A3) Water Marks (B' Sediment Deposits (E' Drift Deposits (E' Surface Soil Cra Inundation Visib Water-Stained L	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9)	e)	Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9)
Saturation (A3) Water Marks (B) Sediment Deposit Drift Deposits (E) Surface Soil Cra Inundation Visib Water-Stained L Field Observations	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) ale on Aerial Imagery eaves (B9)	e)	Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3)
Saturation (A3) Water Marks (B' Sediment Deposits (E' Drift Deposits (E' Surface Soil Cra Inundation Visib Water-Stained L	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9)	e)	Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3)
Saturation (A3) Water Marks (B) Sediment Deposit Drift Deposits (E) Surface Soil Cra Inundation Visib Water-Stained L Field Observations	1) (Nonriverine) Sits (B2) (Nonriverine) B3) (Nonriverine) B4cks (B6) B4e on Aerial Imagery B4eaves (B9) B5. B6. B7. B7. B7. B7. B7. B7. B7. B7. B7. B7	e)	Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	1)	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3)
Saturation (A3) Water Marks (B) Sediment Deposits (E) Drift Deposits (E) Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present?	1) (Nonriverine) sits (B2) (Nonriverine) acks (B6) ale on Aerial Imagery eaves (B9) : ent? Yes Yes Yes	(B7) T No •	Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Reduction Recent Iron Reduction Hin Muck Surface Other (Explain in F	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7)	red Soils (0	Sedime Drift De Drainag ts (C3) Crayfish C6) Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)
Saturation (A3) Water Marks (B) Sediment Deposits (E) Drift Deposits (E) Surface Soil Crail Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present? (includes capillary fri	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	
Saturation (A3) Water Marks (B) Sediment Deposits (E) Drift Deposits (E) Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present?	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	
Saturation (A3) Water Marks (B) Sediment Deposits (B) Drift Deposits (B) Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present? (includes capillary fridescribe Recorded I	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	
Saturation (A3) Water Marks (B) Sediment Deposits (E) Drift Deposits (E) Surface Soil Crail Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present? (includes capillary fri	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	
Saturation (A3) Water Marks (B) Sediment Deposits (B) Drift Deposits (B) Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present? (includes capillary fridescribe Recorded I	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	
Saturation (A3) Water Marks (B) Sediment Deposits (B) Drift Deposits (B) Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Present Saturation Present? (includes capillary fridescribe Recorded I	1) (Nonriverine) sits (B2) (Nonriverine) 33) (Nonriverine) acks (B6) le on Aerial Imagery eaves (B9) : ent? Yes Yes Yes nge)	(B7) T No Aquatic Invertebra Hydrogen Sulfide Dxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	Odor (C1) neres along ced Iron (C4 ction in Plow e (C7) Remarks)	ved Soils (0	Sedime Drift De Drainag ts (C3) Crayfish Saturati Shallow FAC-Ne	Marks (B1) (Riverine) nt Deposits (B2) (Riverine) posits (B3) (Riverine) e Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) eutral Test (D5)	

Project/Site: The Valley's Edge	City/County:Butte Sampling Date: 1-14						-14-15
Applicant/Owner: B. Brouhard				State:CA	— Sar	- npling Point:[J23
Investigator(s):D. Machek, E. Gregg		Section	n, Township, Ra	nge:S 32, T 22N, R		_	
Landform (hillslope, terrace, etc.): terrace		Local r	relief (concave,	convex, none):none		Slo	pe (%):3
Subregion (LRR):C - Mediterranean California	Lat:39.7	725346		Long:-121.770050)	 Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	opes			NWI clas	sification	n:Upland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Ye	s (• No ((If no, explain	in Rema	rks.)	
Are Vegetation Soil or Hydrology Si	ignificantly	disturb	ed? Are	'Normal Circumstance	es" prese	ent? Yes	No 🔘
	aturally pro	oblemat	ic? (If ne	eeded, explain any an	swers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samp	oling point lo	ocations, transe	cts, im	portant fea	atures, etc.
Hydrophytic Vegetation Present? Yes No	o (•)						
	0 (Is the Sampled	l Area			
Wetland Hydrology Present? Yes No	•		within a Wetlar		\circ	No 💿	
Remarks:		'					
VEGETATION							
VEGETATION	A l I - 1 -	D	ant la Pastan	Deminera Test			
	Absolute % Cover		ant Indicator es? Status	Dominance Test w			
1.				Number of Dominal That Are OBL, FAC			(A)
2.				Total Number of De	minant		
3.				 Total Number of Do Species Across All 		4	. (B)
4.				Percent of Dominar	nt Snacie	26	
Total Cover	: %			That Are OBL, FAC			0 % (A/B)
Sapling/Shrub Stratum 1.				Prevalence Index	worksh	oot:	
2.				Total % Cover		Multipl	v hv·
3.				OBL species	01.	x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cover:	%			FACU species	40	x 4 =	160
Herb Stratum				UPL species	60	x 5 =	300
1. Elymus caput-medusae	30	Yes	UPL	Column Totals:	100	(A)	460 (B)
2. Erodium botrys	20	Yes	FACU	Prevalence In	dov D	./^	4.60
3.Layia fremontii		No	Not Listed	Hydrophytic Vege			4.00
4.Festuca sp.	20	Yes	Not Listed	Dominance Te			
5.Bromus hordeaceous		Yes	FACU FACU	Prevalence Ind			
6. 7.				Morphological			supportina
8.						on a separate	
Total Cover:	100 %			Problematic Hy	/drophyti	c Vegetation ¹	(Explain)
Woody Vine Stratum	100%						
1				¹ Indicators of hydri be present.	c soil an	d wetland hy	drology must
2							
Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0 % Cover	of Biotic C	Crust _	%	Present?	Yes C	No 🖲	
Remarks:				1			

SOIL Sampling Point: $\underline{U23}$

Profile Des	scription: (Describe	to the depth nee				or confirn	n the absence of ind	icators.)
Depth (inches)	Matrix	0/		x Features		1002	Toytura	Domorko
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²		Remarks
0-14	2.5 YR 2.5/3					. ———	Gravelly clay loam	
	_							
	-	· — — —						
1		. — — — — —					21	
'Type: C=0	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	ed Sand G	rains ² Loo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	le to all I RRs un	less otherwise	noted)			Indicators for Pro	blematic Hydric Soils: 3
Histoso			Sandy Redo	-			1 cm Muck (A	
	Epipedon (A2)		Stripped M	. ,			2 cm Muck (A	, ,
l <u> </u>	Histic (A3)		Loamy Mud	-	. ,		Reduced Ver	
	gen Sulfide (A4)		Loamy Gle		(F2)		Red Parent M	, ,
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	. ,	(= a)		Other (Explai	n in Remarks)
	fluck (A9) (LRR D)	_ (0.4.4)	Redox Dar		` '			
	ed Below Dark Surface Dark Surface (A12)	e (ATT)	Depleted D Redox Dep		. ,		3 Indicators of hyd	rophytic vegetation and
	Mucky Mineral (S1)	F	Vernal Poo	•	1-0)		wetland hydro	logy must be present.
	Gleyed Matrix (S4)	L	_ veman ee	15 (1 5)			unless distribu	ited or problematic
	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Prese	nt? Yes No •
Remarks:								
HYDROLO	nev							
	ydrology Indicators:	no roquirod, obos	ole all that ann				Secondary Ir	ndicators (2 or more required)
	dicators (minimum of o	<u>ne requirea; chec</u>		*			<u></u>	Marks (B1) (Riverine)
	e Water (A1)		Salt Crust				<u></u>	, , ,
l <u> </u>	/ater Table (A2)	Ĺ	Biotic Cru		- (D40)			nt Deposits (B2) (Riverine)
	tion (A3)	· \ [Aquatic In		` ,			posits (B3) (Riverine) e Patterns (B10)
=	Marks (B1) (Nonriveri		Hydrogen		, ,	Lista a Dar	=	son Water Table (C2)
	ent Deposits (B2) (Nor	, ,	Oxidized		_	-	(/ /	` '
l <u>=</u>	eposits (B3) (Nonriver	ine)	Presence Recent Iro		,	,		Burrows (C8) on Visible on Aerial Imagery (C9)
==	e Soil Cracks (B6)		_			reu solis (′ 🖳	3 , ()
l <u>—</u>	tion Visible on Aerial II Stained Leaves (B9)	magery (b <i>r</i>) [Thin Muck	,	,			Aquitard (D3) utral Test (D5)
Field Obse		L	Other (LX)	Jiaiii iii ike	illaiks)		TAONE	utai rest (Do)
		es No 💿	Depth (in	ches):				
Water Tabl		es No (•)		· —				
Saturation	_	es O No 💿		· —				
I .	apillary fringe)	es O NO	Ворит (п			Wetl	and Hydrology Pres	ent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorin	ig well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
l								

Project/Site: The Valley's Edge		City/Count	ty:Butte		Sam	pling Date: 1	-14-15
Applicant/Owner:B. Brouhard				State:CA	Sam	pling Point:U	J24_25_26
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E	_	
Landform (hillslope, terrace, etc.): fan terrace		Local relie	ef (concave,	convex, none):none	2	Slop	pe (%):1
Subregion (LRR):C - Mediterranean California	Lat:39.7	723412		Long:-121.77459	96	 Datui	m:WGS 84
Soil Map Unit Name: Clearhayes-Hamslough, 0 to 2	percent slop	es		NWI cla	assification	:Upland	
Are climatic / hydrologic conditions on the site typical for t			• No (
Are Vegetation Soil or Hydrology	significantly			"Normal Circumstan		,	No 🔘
Are Vegetation Soil or Hydrology	naturally pro			eeded, explain any a	•		
						,	-4
SUMMARY OF FINDINGS - Attach site map	snowing	sampiir	ig point i	ocations, trans	ects, imp	ortant rea	atures, etc.
Hydrophytic Vegetation Present? Yes	No 💿						
Hydric Soil Present? Yes	No 💿	ls t	he Sample	d Area			
Wetland Hydrology Present? Yes	No (•		hin a Wetla		\circ	No 💿	
Remarks: This data sheet is to be used for the uplan	nd sample p	oint for V	VF 24, 25,	and 26.			
VEGETATION							
VEGETATION	Absolute	Dominant	Indicator	Dominance Test	workshee	t·	
Tree Stratum (Use scientific names.)		Species?		Number of Domin			
1				That Are OBL, FA			(A)
2				Total Number of D	Dominant		
3				Species Across A		3	(B)
4				Percent of Domin	ant Species	3	
Total Co Sapling/Shrub Stratum	ver: %			That Are OBL, FA	CW, or FA	C: 0.0	0 % (A/B)
1.				Prevalence Inde	x workshe	et:	
2.				Total % Cove	er of:	Multiply	y by:
3.				OBL species		x 1 =	0
4.				FACW species	10	x 2 =	20
5.				FAC species		x 3 =	0
Total Cov	ver: %			FACU species	50	x 4 =	200
Herb Stratum	20	V 7		UPL species	40	x 5 =	200
1.Bromus hordeaceous	$-\frac{20}{10}$	Yes	FACU	Column Totals:	100	(A)	420 (B)
2.Layia fremontii 3.Festuca microstachys	$-\frac{10}{10}$	No No	NI N. H. H	Prevalence	Index = B/	A =	4.20
4.Blennosperma nanum	$-\frac{10}{10}$	No	Not Listed FACW	Hydrophytic Veg	etation Inc	dicators:	
5.Elymus caput medusae	$-\frac{10}{20}$	Yes	UPL	Dominance T			
6. Erodium botrys	$-\frac{20}{30}$	Yes	FACU	Prevalence Ir	ndex is ≤3.0) ¹	
7.				Morphologica	al Adaptatio	ns ¹ (Provide	supporting
8.			-			n a separate	
Total Cov	/er: 100%			Problematic I	Hydrophytic	vegetation.	(Explain)
Woody Vine Stratum	70			¹ Indicators of hyd	lria aail aa	d watland by	drology must
1				be present.	inc son and	a welland nyt	Jiology must
Z				Hydrophytic			
Total Cov				Vegetation			
	ver of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🗨)
Remarks:		·					

Soll Sampling Point: <u>U24_25_</u>2

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence o	f indicators.)		
Depth	Matrix			x Features						
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10 YR 4/3						Gravelly loam			
4-16	10 YR 3/4						Gravelly loam			
	-									
		· — — —								
¹ Type: C=0	Concentration, D=Dep	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applicabl	le to all LRRs. u	nless otherwise	e noted.)			Indicators for	r Problematic Hydric Soils: 3		
Histoso			Sandy Redo					ick (A9) (LRR C)		
	Epipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)		
	Histic (A3)		Loamy Mu	-	. ,			d Vertic (F18)		
	gen Sulfide (A4) ed Layers (A5) (LRR (Loamy Gle Depleted M		((F2)			ent Material (TF2) xplain in Remarks)		
	luck (A9) (LRR D)	•) [Redox Dar	, ,	(F6)		Other (E	xpiairi iri Kemarks)		
	ed Below Dark Surface	e (A11)	Depleted D							
Thick D	Dark Surface (A12)		Redox Dep	,	F8)			f hydrophytic vegetation and		
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic			
	Gleyed Matrix (S4)						uniess un	stributed of problematic		
	Layer (if present):									
Type:	nohoo\.		_				Undria Cail D	resent? Yes No No		
Depth (ii	ncnes)						Hydric Soil P	resent? Yes No •		
Remarks.										
LIVEROLO	20V									
HYDROLO										
	ydrology Indicators:		1 11 41 4				Sacanda	ary Indicators (2 or more required)		
	licators (minimum of o	ne requirea; cne						ater Marks (B1) (Riverine)		
l ==	e Water (A1)		Salt Crust	` '				diment Deposits (B2) (Riverine)		
l <u>□</u>	/ater Table (A2) tion (A3)		Biotic Cru	st (B12) ivertebrate	se (B13)			t Deposits (B3) (Riverine)		
l <u>—</u>	Marks (B1) (Nonriveri	ine)	= '	Sulfide O				inage Patterns (B10)		
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Livina Roo	= =	-Season Water Table (C2)		
=	eposits (B3) (Nonriver		=		ed Iron (C4	_		yfish Burrows (C8)		
l <u>—</u>	e Soil Cracks (B6)		Recent Ire	on Reducti	ion in Plow	ed Soils (uration Visible on Aerial Imagery (C9)		
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	allow Aquitard (D3)		
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	C-Neutral Test (D5)		
Field Obse	ervations:									
Surface Wa	ater Present? Ye	es 🔵 No 🤄	Depth (ir	iches):						
Water Table	e Present? Y	es 🦳 No 🤄	Depth (ir	iches):						
Saturation I	•	es O No 🤄	Depth (ir	iches):		Wetl	land Hydrology I	Present? Yes No •		
	apillary fringe) ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins			100 0 10		
		-	•		·	,				
Remarks:										

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1-	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	27	
Investigator(s): D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N, I	R 2E	_		
Landform (hillslope, terrace, etc.): fan to	errace		Local reli	ef (concave,	convex, none):none	:	Slop	oe (%):1	
Subregion (LRR):C - Mediterranean C	 California	Lat:39.7		•	Long:-121.77459			n:WGS	84
Soil Map Unit Name: Clearhayes-Ham					_	ssification			
Are climatic / hydrologic conditions on the				• No (
					"Normal Circumstand		,	No	
			disturbed'			•		No (
Are Vegetation Soil or H	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in l	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sh	nowing	samplii	ng point l	ocations, transe	ects, imp	oortant fea	ıtures,	etc.
Hudraphytia Vagetation Procent?	Yes No								
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No		lo i	tha Campla	d Aron				
Wetland Hydrology Present?	Yes No			the Sampled thin a Wetla		\bigcirc	No 💿		
Remarks:	103		Wit	ının a vvetia	na? res		NO (
VEGETATION									
	Α	bsolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.))	% Cover	Species?	Status	Number of Domina	ant Specie	S		
1				_	That Are OBL, FA	CW, or FA	C: 0	((A)
2					Total Number of D	ominant			
3					Species Across Al		3	((B)
4				-	Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA) % (A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove		Multiply	/ bv:	
3.				-	OBL species		x 1 =	0	
4.					FACW species	5	x 2 =	10	
5.					FAC species	5	x 3 =	15	
	Total Cover:	%			FACU species	50	x 4 =	200	
Herb Stratum					UPL species	40	x 5 =	200	
1. Elymus caput medusae		30	Yes	UPL	Column Totals:	100	(A)	425	(B)
2.Layia fremontii		10	No	NI			•	4.05	
³ ·Hordeum marinum ssp. gussone	anum	5	No	FAC	Prevalence I			4.25	
4.Blennosperma nanum		5	No	FACW	Hydrophytic Veg				
5.Bromus hordeaceous		30	Yes	FACU	Dominance To Prevalence In				
6. Erodium botrys		20	Yes	FACU	Morphologica			cupportir	20
7					data in Re	marks or o	n a separate	sheet)	ıg
8					Problematic H	lydrophytic	Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hyd	ric soil and	d wetland hyd	drology n	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % % Cover o	of Biotic C	`ruet	%	Vegetation Present?	Yes 〇	No (•		
Remarks:		יי בוטנוט כ		/0	i resent:	163	140		
Nemarks.									

SOIL Sampling Point: <u>U27</u>

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)			
Depth	Matrix			x Features							
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-4	10 YR 4/3						Gravelly loam				
4-16	10 YR 3/4						Gravelly loam				
	-	· 						-			
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3			
Histoso			Sandy Redo					ck (A9) (LRR C)			
	pipedon (A2)		Stripped M	, ,				ck (A10) (LRR B)			
	Histic (A3)	L	Loamy Mud	-	. ,			Vertic (F18) ent Material (TF2)			
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)	Loamy Gle Depleted M		((FZ)			rplain in Remarks)			
	luck (A9) (LRR D)	"	Redox Dar	` '	(F6)			tpian in remaine)			
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and			
	Oark Surface (A12)		Redox Dep	,	(F8)			hydrophytic vegetation and ydrology must be present.			
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			unless distributed or problematic				
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano			
Type:	Layer (ii present).										
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿			
Remarks:	101100)						Tiyano con Ti	100 100			
Tromano.											
LIVEROL	201										
HYDROLO											
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)			
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)			
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)			
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)			
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)			
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)			
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)			
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)			
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)			
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)			
Field Obse											
		es O No 💽		· —							
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):							
Saturation I (includes ca	Present? Υα apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •			
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:				
Remarks:											

Project/Site: The Valley's Edge		City/Cou	nty:Butte		Sam	pling Date: 1	-14-15
Applicant/Owner: B. Brouhard				State:CA	Sam	pling Point:U	J28
Investigator(s):D. Machek, E. Gregg		Section,	Township, Ra	ange:S 32, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): fan terrace		Local re	lief (concave,	convex, none):none)	Slop	pe (%):1
Subregion (LRR):C - Mediterranean California	Lat:39.	723412		Long:-121.77459	96	 Datur	m:WGS 84
Soil Map Unit Name: Clearhayes-Hamslough, 0 to 2 p	ercent slop	oes		NWI cla	assification	:Upland	
Are climatic / hydrologic conditions on the site typical for the			No (
Are Vegetation Soil or Hydrology	significantly			"Normal Circumstan		,	No 🔘
Are Vegetation Soil or Hydrology	naturally pro			eeded, explain any a	•		
SUMMARY OF FINDINGS - Attach site map						,	aturos oto
SOMMART OF FINDINGS - Attach site map	Showing	Sampi	ing point it	ocations, transi	ecis, iiiip	Jortani iea	alures, etc.
	No 💿						
	No 💿		the Sample				
Wetland Hydrology Present? Yes Remarks:	No 💿	w	ithin a Wetla	nd? Yes	0	No 💿	
VEGETATION							
	Absolute	Domina	nt Indicator	Dominance Test	workshee	t:	
Tree Stratum (Use scientific names.)	% Cover	Species	? Status	Number of Domin			
1		-		That Are OBL, FA	CW, or FA	C: 0	(A)
2				Total Number of D		2	(D)
4.	_			Species Across A		3	(B)
Total Cov	er: %			Percent of Domina That Are OBL, FA) % (A/B)
Sapling/Shrub Stratum 1.				Prevalence Index	v worksho	et·	
2.				Total % Cove		Multiply	v bv:
3.				OBL species		x 1 =	0
4.				FACW species	10	x 2 =	20
5.	_			FAC species		x 3 =	0
Total Cove	er: %			FACU species	50	x 4 =	200
Herb Stratum				UPL species	40	x 5 =	200
1.Elymus caput medusae		Yes	UPL	Column Totals:	100	(A)	420 (B)
2-Layia fremontii		No	NI	Prevalence	Index - B/	Δ _	4.20
3.Centaurea solstitialis		No	Not Listed	Hydrophytic Veg			4.20
4.Blennosperma nanum 5.Bromus hordeaceous	$-\frac{10}{20}$	No Yes	FACW	Dominance T			
6.Erodium botrys	$-\frac{30}{20}$	$\frac{1 \text{ es}}{\text{Yes}}$	FACU FACU	Prevalence Ir			
7.		103		Morphologica			supporting
8.				data in Re	marks or o	n a separate	sheet)
Total Cov	er: 100%			Problematic I	Hydrophytic	C Vegetation ¹	(Explain)
Woody Vine Stratum	100%			1			
1	_			¹ Indicators of hyd be present.	ric soil and	d wetland hyd	drology must
2Total Cov	er: %			Hydrophytic			
	er of Biotic (Crust	%	Vegetation Present?	Yes 〇	No (•	
Remarks:							

SOIL Sampling Point: $\underline{U28}$

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4						Gravelly loam	
	-	· 						
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)
	Histic (A3)	L	Loamy Mud	-	. ,			Vertic (F18) ent Material (TF2)
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)	Loamy Gle Depleted M		((FZ)			rplain in Remarks)
	luck (A9) (LRR D)	"	Redox Dar	` '	(F6)		Outlot (2)	tpian in remaine)
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and
	Oark Surface (A12)		Redox Dep	,	(F8)			hydrophytic vegetation and ydrology must be present.
	Mucky Mineral (S1)			unless distributed or problematic				
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano
Type:	Layer (ii present).							
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿
Remarks:							Tiyano con Ti	100 100
Tromano.								
LIVEROL	201							
HYDROLO								
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)
Field Obse								
		es O No 💽		· —				
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):				
Saturation I (includes ca	Present? Yo apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J29	
Investigator(s): D. Machek, E. Gregg			Section, T	Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): fan te	errace		Local reli	ef (concave,	convex, none):none	2	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	723412		Long:-121.77459	96	 Datu	ım:WGS	84
Soil Map Unit Name: Clearhayes-Ham	slough, 0 to 2 per	ent slop	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	ne site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	 ks.)		
Are Vegetation Soil or H	ydrology sig	nificantly	disturbed'	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (0
			oblematic?		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - At					ocations, trans	ects, im	oortant fe	atures,	etc.
		•	<u> </u>	<u> </u>	·				
Hydrophytic Vegetation Present? Hydric Soil Present?		•	le i	the Sample	d Aroa				
Wetland Hydrology Present?		•		thin a Wetla			No 💿		
Remarks:				iliiii a wolla	10.		110		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		t Indicator	Dominance Test				
		% Cover	Species?	Status	Number of Domin				(4)
1. 2.					That Are OBL, FA	CVV, OI FA	C: 0	, (.	(A)
3.					Total Number of I Species Across A		3	. ((B)
4.					-			(,0)
·	Total Cover:	%			 Percent of Domin That Are OBL, FA 			0 % (A/B)
Sapling/Shrub Stratum								0 % (/	7 (10)
1					Prevalence Inde				
2					Total % Cove	er of:	Multipl		
3					OBL species		x 1 =	0	
4					FACW species FAC species		x 2 = x 3 =	0	
5	Total Cover:	0/		_	FACU species	35	x 4 =	140	
Herb Stratum	Total Cover.	%			UPL species	65	x 5 =	325	
1.Elymus caput medusae		30	Yes	UPL	Column Totals:	100	(A)	465	(B)
2.Bromus hordeaceous		20	Yes	FACU	_ Column rotals.	100	(14)		(5)
3. Festuca microstachys		25	Yes	Not Listed	Prevalence			4.65	
4. Layia fremontii		10	No	NI	Hydrophytic Veg				
5. Erodium botrys		15	No	FACU	Dominance T				
6					Prevalence Ir				
7				_	Morphologica	ıl Adaptatıc marks or o	ns' (Provide n a separate	supportin sheet)	ıg
8					- Problematic I)
Woody Vine Stratum	Total Cover:	100%				, , ,	Ü	` ' '	
1					¹ Indicators of hyd	lric soil and	d wetland hy	drology n	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum () % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 🖲	5	
Remarks:							-10		
İ									

SOIL Sampling Point: $\underline{U29}$

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4						Gravelly loam	
	-	· 						
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
	pipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)
	Histic (A3)	L	Loamy Mud	-	. ,			Vertic (F18) ent Material (TF2)
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)	Loamy Gle Depleted M		((FZ)			rplain in Remarks)
	luck (A9) (LRR D)	"	Redox Dar	` '	(F6)		Outlot (2)	tpian in remaine)
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and
	Oark Surface (A12)		Redox Dep	,	(F8)			hydrophytic vegetation and ydrology must be present.
	Mucky Mineral (S1)			unless distributed or problematic				
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano
Type:	Layer (ii present).							
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿
Remarks:							Tiyano con Ti	100 100
Tromano.								
LIVEROL	201							
HYDROLO								
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)
Field Obse								
		es O No 💽		· —				
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):				
Saturation I (includes ca	Present? Yo apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:	
Remarks:								

Project/Site: The Valley's Edge			City/C	ounty:Butte		Sar	npling Date:	1-14-15
Applicant/Owner: B. Brouhard					State:CA	Sar	npling Point:	:U30
Investigator(s): D. Machek, E. Gregg			Section	on, Township, Ra	nge:S 32, T 22N	, R 2E		
Landform (hillslope, terrace, etc.): fan te	errace		Local	relief (concave,	convex, none):noi	ne	SI	ope (%):1
Subregion (LRR):C - Mediterranean (California	Lat:39.	72341	2	Long:-121.774:	596		tum:WGS 84
Soil Map Unit Name: Clearhayes-Ham						classification		
Are climatic / hydrologic conditions on the				es (• No (ain in Rema		
		nificantly			"Normal Circumsta		,	No (
	, , , , , ,	, ,				•		9 110
·	· • —	turally pro			eeded, explain any		,	
SUMMARY OF FINDINGS - At	tach site map sl	nowing	sam	pling point le	ocations, trans	sects, im	portant fe	eatures, etc.
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?	Yes No			Is the Sampled	l Area			
Wetland Hydrology Present?	Yes No			within a Wetla	nd? Ye	s O	No 💿	
Remarks:								
VEGETATION								
		Absolute	Domi	nant Indicator	Dominance Tes	st workshe	et:	
Tree Stratum (Use scientific names.)				ies? Status	Number of Dom			
1.					That Are OBL, F			0 (A)
2.					Total Number of	Dominant		
3.					Species Across			3 (B)
4.					Percent of Domi	nant Specie	ne .	
01/0	Total Cover:	%			That Are OBL, F).0 % (A/B)
Sapling/Shrub Stratum					Prevalence Ind	av warkah		
1					Total % Cov			oly by:
2					OBL species	rei oi.	x 1 =	0
3. 4.					FACW species		x 2 =	0
5.				.	FAC species		x 3 =	0
J	Total Cover:	%		 -	FACU species	50	x 4 =	200
Herb Stratum	rotal Gover.	70			UPL species	50	x 5 =	250
1.Elymus caput medusae		35	Yes	UPL	Column Totals:	100	(A)	450 (B)
2. Centaurea solstitialis		5	No	Not Listed				
3. Bromus hordeaceous		30	Yes	FACU		e Index = B		4.50
4. Layia fremontii		10	No	NI	Hydrophytic Ve	_		
5. Erodium botrys		20	Yes	FACU	Dominance			
6					Prevalence			
7							ons' (Provid on a separat	e supporting
8					- Problemation			,
Woody Vina Stratum	Total Cover:	100%				,	o regetatio.	(=/(=/(=//)
Woody Vine Stratum 1.					¹ Indicators of hy	dric soil an	d wetland h	vdrology must
2.			-		be present.			,
2.	Total Cover:	%			Hydrophytic			
% Bare Ground in Herb Stratum	0 % % Cover o	of Biotic (Crust	%	Vegetation Present?	Yes C	No (•
Remarks:						.00		
Nomana.								

SOIL Sampling Point: $\underline{\text{U30}}$

Deptin Marrix Redox Features Redox Tareture Remarks	Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	m the absence of ind	licators.)
0-4 10 YR 4/3 100							. 2	- .	5
4-16 10 YR 3/4 100				olor (moist)	%	Iype'	_Loc²		Remarks
"Type: C-Concentration, D-Depletion, RM=Reduced 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: Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B) 2 cm Muck (A10) (LR B) 2								Gravelly loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo: (A3) Hydrogen Sulfice (A2) Stratified Layers (A5) (LRR C) Depleted Matrix (F8) Loamy Mucky Mineral (F1) Hydrogen Sulfice (A2) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Sandy Muck (A9) (LRR D) Redox Dark Surface (F8) Depleted Below Dark Surface (A11) Depleted Dark Surface (F8) Sandy Mucky Mineral (S1) Sandy Mucky Miner	4-16	10 YR 3/4	100					Gravelly loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift		-							
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift		-							
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histo (A2) Black Histo (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red (A5) (LRR C) Depleted Matrix (F2) Bratifiled Layers (A5) (LRR D) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Wetar Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (2 or more required) Water Marks (S1) (Riverine) Secondary Indicators (S2) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Riverine) Drift Deposits (S3) (Nonriverine) Drift	1Typo: C-C	Concentration D-Don	lotion PM-Pod	ucod Matrix C		d or Coato	d Sand G	rains ² l o	cation: PL –Pore Lining M–Matrix
Histoso (A1)	Type: C=C	concentration, D=Dep	ietion, Rivi=Red	uced Matrix. C	S=Covere	d of Coale	u Sanu G	rains Lo	cation. FL=Fore Liming, M=Matrix.
Histoso (A1)	Hydric Soil	Indicators: (Applicab	le to all LRRs, u	nless otherwis	e noted.)			Indicators for Pro	blematic Hydric Soils; 3
Black Histic (A3)			Í		-				
Hydrogen Sulfide (AA)	Histic E	pipedon (A2)			, ,			2 cm Muck (A10) (LRR B)
Stratified Layers (A5) (LRR C)	📖	` '			-	, ,			
1 cm Muck (A9) (LRR D)					-	(F2)		<u> </u>	` '
Depleted Below Dark Surface (A11)			C)		, ,			Other (Expla	in in Remarks)
Thick Dark Surface (A12)		. , . , . ,	- (044)			. ,			
Sandy Mucky Mineral (St) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No Boilt Crust (B1) Sultration (A3) Sultration (A3) Hydrogen Sulfialo Coft (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Sediment Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Sediment Deposits (B3) (Nonriverine) Sedimen			e (A11) [. ,		3 Indicators of hyd	Irophytic vegetation and
Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Saturation (A3) Redinent Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Saturation (A3) Sediment Deposits (B3) (Riverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Saturation (A3) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Sediment Deposits (B3) (Riverine) Drift Deposits (B3) (Riverine) Dri	l 🖳	, ,	Ĺ		•	F8)			
Restrictive Layer (if present): Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Dry-Season Water Table (C3) Dry-Season Water Table (C3) Dry-Season Water Table (C4) Draingle Hammark (C1)			L	veillai Foc	115 (119)			unless distrib	uted or problematic
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Sulf Crust (B11) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sutration Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:									
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Water Marks (B1) (Nonriverine)	l <u> </u>	, ,		=		(0.40)			
Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Thin Muck Surface (C7) Water Table Present? Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	l <u>—</u>			□ '		` '			. , , , ,
Drift Deposits (B3) (Nonriverine)	l 🖃	` , `	•			` '		=	
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	l <u>—</u>	. , ,	,	=		_	_	()	` '
Inundation Visible on Aerial Imagery (B7)	l <u>—</u>		rine)			`	,		
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	==		(5-)	-			ed Soils (· ' <u>'</u>	3 , ()
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	l <u>—</u>		magery (B7)		`	` '			
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				Other (Ex	piairi iri Ke	illaiks)			edital Test (D3)
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			es O No G	Denth (ir	rches).				
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					· · ·				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: No No No No No No No No					· · · · · · · · · · · · · · · · · · ·				
	(includes ca	apillary fringe)							sent? Yes O No 💿
Remarks:	Describe Re	ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:									
	Remarks:								

Project/Site: The Valley's Edge	City/Co	ounty:Butte		Sar	mpling Date: 1	-14-15		
Applicant/Owner: B. Brouhard				State:CA	—— Sar	impling Point:U31		
Investigator(s):D. Machek, E. Gregg		Section	n, Township, Ra	nge:S 32, T 22N, F	 R 2E	_		
Landform (hillslope, terrace, etc.): fan terrace		Local	relief (concave,	convex, none):none		Slo	pe (%):1	
Subregion (LRR):C - Mediterranean California	Lat:39.7	723733	3	Long:-121.77575	5	Datu	ım:WGS 84	
Soil Map Unit Name: Clearhayes-Hamslough, 0 to 2 per	rcent slop	oes		NWI cla	ssification	n:Upland		
Are climatic / hydrologic conditions on the site typical for this			es (• No (
	ignificantly			'Normal Circumstanc		,	No (
	aturally pro			eeded, explain any ar	•			
SUMMARY OF FINDINGS - Attach site map s							atures, etc.	
Hydrophytic Vegetation Present? Yes No	o (
	0 (Is the Sampled	Area				
	o		within a Wetlar		\circ	No 💿		
Remarks:								
VEGETATION								
	Absolute	Domin	nant Indicator	Dominance Test	worksho	ot:		
			es? Status	Number of Domina				
1				That Are OBL, FAG			(A)	
2				Total Number of D	ominant			
3				Species Across All	Strata:	3	(B)	
4				Percent of Domina				
Total Cover Sapling/Shrub Stratum	r: %			That Are OBL, FA	CW, or FA	AC: 0.	.0 % (A/B)	
1.				Prevalence Index	workshe	eet:		
2.				Total % Cover	of:	Multip	ly by:	
3.				OBL species		x 1 =	0	
4.				FACW species	5	x 2 =	10	
5				FAC species		x 3 =	0	
Total Cover Herb Stratum	: %			FACU species	60	x 4 =	240	
1.Elymus caput medusae	30	Yes	UPL	UPL species	35	x 5 =	175	
2.Layia fremontii	5	No	NI	Column Totals:	100	(A)	425 (B)	
3. Bromus hordeaceous	30	Yes	FACU	Prevalence I	ndex = B	6/A =	4.25	
4. Blennosperma nanum		No	FACW	Hydrophytic Vege	etation In	dicators:		
5. Erodium botrys	30	Yes	FACU	Dominance Te	est is >50	%		
6.			 -	Prevalence In				
7.				Morphological		ons¹ (Provide on a separate		
8				Problematic H		•	,	
Total Cover Woody Vine Stratum	100%				yaropitya	o vogotation	(Explair)	
				¹ Indicators of hydr	ic soil ar	d wetland hy	drology must	
12			<u> </u>	be present.		·		
Total Cover	: %			Hydrophytic				
% Bare Ground in Herb Stratum0 % Cover	of Biotic C	Crust _	%	Vegetation Present?	Yes C	No @		
Remarks:				,				

SOIL Sampling Point: $\underline{U31}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence o	f indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4						Gravelly loam	
	-							
		· — — —						
¹ Type: C=0	Concentration, D=Dep	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	le to all LRRs. u	nless otherwise	e noted.)			Indicators for	r Problematic Hydric Soils: 3
Histoso			Sandy Redo					ick (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)
	Histic (A3)		Loamy Mu	-	. ,			d Vertic (F18)
	gen Sulfide (A4) ed Layers (A5) (LRR (Loamy Gle Depleted M		((F2)			ent Material (TF2) xplain in Remarks)
	luck (A9) (LRR D)	•) [Redox Dar	, ,	(F6)		Other (E	xpiairi iri Kemarks)
	ed Below Dark Surface	e (A11)	Depleted D					
Thick D	Dark Surface (A12)		Redox Dep	,	F8)			f hydrophytic vegetation and lydrology must be present.
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				stributed or problematic
	Gleyed Matrix (S4)						uniess un	stributed of problematic
	Layer (if present):							
Type:	nohoo\.		_				Undria Cail D	resent? Yes No No
Depth (ii Remarks:	ncnes)						Hydric Soil P	resent? Yes No •
Remarks.								
LIVEROLO	20V							
HYDROLO								
	ydrology Indicators:		1 11 41 4				Sacanda	ary Indicators (2 or more required)
	licators (minimum of o	ne requirea; cne						ater Marks (B1) (Riverine)
l ==	e Water (A1)		Salt Crust	` '				diment Deposits (B2) (Riverine)
l <u>□</u>	/ater Table (A2) tion (A3)		Biotic Cru	st (B12) ivertebrate	se (B13)			t Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ine)	= '	Sulfide O				inage Patterns (B10)
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Livina Roo	= =	-Season Water Table (C2)
=	eposits (B3) (Nonriver		=		ed Iron (C4	_		yfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)		Recent Ire	on Reducti	ion in Plow	ed Soils (uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es 🔵 No 🤄	Depth (ir	iches):				
Water Table	e Present? Y	es 🦳 No 🤄	Depth (ir	iches):				
Saturation I	•	es O No 🤄	Depth (ir	iches):		Wetl	land Hydrology I	Present? Yes No •
	apillary fringe) ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins			100 0 100
		-	•		·	,		
Remarks:								

Project/Site: The Valley's Edge			City/C	ounty:Butte		S	ampling Date:	:1-14-15
Applicant/Owner: B. Brouhard					State:C	CA S	ampling Point	:U32
Investigator(s): D. Machek, E. Gregg			Section	on, Township, Ra	 inge:S 32, T 2	2N, R 2E		
Landform (hillslope, terrace, etc.): fan te	rrace		Local	relief (concave,	convex, none):	none	S	lope (%):1
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	72373:	3	Long:-121.7	 75755		tum:WGS 84
Soil Map Unit Name: Clearhayes-Ham						WI classificati		
Are climatic / hydrologic conditions on th				es No (explain in Rem		
		nificantly			"Normal Circun	•	,	No (
	3	,						110
, ,		turally pro			eeded, explain	•	,	
SUMMARY OF FINDINGS - Att	ach site map sh	nowing	sam	pling point lo	ocations, tr	ansects, ir	nportant f	eatures, etc.
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?	Yes No			Is the Sampled	l Area			
Wetland Hydrology Present?	Yes No	•		within a Wetla	nd?	Yes 🔘	No 💿	
Remarks:								
VEGETATION								
Total Objections (III and Single Control of		bsolute		nant Indicator	Dominance	Test worksh	eet:	
Tree Stratum (Use scientific names.)	<u>9</u>	<u> </u>	Spec	ies? Status		ominant Spec		0 (4)
1					I nat Are OB	L, FACW, or	-AC:	(A)
2. 3.			-			er of Dominan		2 (5)
					Species Acro	oss All Strata:		3 (B)
4	Total Cover:	0/	_			ominant Spec		2.0 (4.15)
Sapling/Shrub Stratum	Total Cover.	%			I nat Are OB	L, FACW, or	-AC: ().0 % (A/B)
1.					Prevalence	Index works	neet:	
2.					Total %	Cover of:	Multi	ply by:
3.					OBL species		x 1 =	0
4					FACW speci		x 2 =	0
5					FAC species		x 3 =	0
Herb Stratum	Total Cover:	%			FACU specie	00	x 4 =	240
1.Elymus caput medusae		30	Yes	UPL	UPL species	10	x 5 =	200
2. Erodium botrys		30	Yes	FACU	Column Tota	als: 100	(A)	440 (B)
3. Bromus hordeaceous		30	Yes	FACU	Prevale	ence Index =	B/A =	4.40
4. Layia fremontii		10	$\frac{1 \text{ cs}}{\text{No}}$	NI	Hydrophytic	c Vegetation	Indicators:	
5.		10			Domina	nce Test is >5	0%	
6.					Prevaler	nce Index is ≤	3.0 ¹	
7.							ntions ¹ (Provid	
8.							r on a separa	•
	Total Cover:	100%			- Problem	natic Hydrophy	ytic Vegetation	n' (Explain)
Woody Vine Stratum		100 /0			11	Charles and Co	and and the solution	
1					be present.		and wetland r	nydrology must
2	Total Cover:	%			Hydrophytic	r.		
Of Bono Charled in Horb Stratum			D	0/	Vegetation		○ N= (
	% Cover o	DIDITIC (rust _	<u>%</u>	Present?	Yes	O No (•
Remarks:								

SOIL Sampling Point: $\underline{U32}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confire	n the absence of i	ndicators.)		
Depth	Matrix			x Features						
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10 YR 4/3						Gravelly loam			
4-16	10 YR 3/4	100					Gravelly loam			
	-									
		· — — —								
	-	· ———								
¹ Type: C=0	Concentration, D=Depl	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains 2	Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applicabl	e to all I RRs	nless otherwis	e noted)			Indicators for F	Problematic Hydric Soils: 3		
Histoso			Sandy Redo					(A9) (LRR C)		
1 ==	Epipedon (A2)	Ī	Stripped M	` '			<u></u>	k (A10) (LRR B)		
	Histic (A3)		Loamy Mu	-	. ,			Vertic (F18)		
	en Sulfide (A4)		Loamy Gle	-	(F2)			nt Material (TF2)		
	ed Layers (A5) (LRR C	;)	Depleted M Redox Dar	, ,	(Ec)		Other (Exp	plain in Remarks)		
l —	luck (A9) (LRR D) ed Below Dark Surface	_ (A11)	Depleted D		, ,					
I — ·	Dark Surface (A12)	[Redox Dep		` ,			nydrophytic vegetation and		
I —	Mucky Mineral (S1)	Ī	Vernal Pod		wetland hydrology must be present.					
Sandy	Gleyed Matrix (S4)						unless distr	ributed or problematic		
Restrictive	Layer (if present):									
Type:			_							
Depth (ii	nches):						Hydric Soil Pre	esent? Yes No No		
Remarks:										
HYDROLO	OGY									
Wetland H	ydrology Indicators:									
Primary Ind	icators (minimum of o	ne required; che	eck all that app	oly)			Secondar	y Indicators (2 or more required)		
Surface	e Water (A1)		Salt Crus	t (B11)			☐ Wate	er Marks (B1) (Riverine)		
High W	ater Table (A2)		Biotic Cru	ıst (B12)			Sedir	ment Deposits (B2) (Riverine)		
Satura	tion (A3)		Aquatic Ir	nvertebrate	es (B13)		Drift I	Deposits (B3) (Riverine)		
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drain	age Patterns (B10)		
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	res along	Living Ro	` '	Season Water Table (C2)		
1 ==	eposits (B3) (Nonriver	rine)	_		ed Iron (C4	,		fish Burrows (C8)		
1 ==	e Soil Cracks (B6)	(5-1)	=		ion in Plow	ed Soils (` ' 🖳	ration Visible on Aerial Imagery (C9)		
l 🖳	tion Visible on Aerial II	magery (B7)		k Surface (ow Aquitard (D3)		
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC-	Neutral Test (D5)		
Field Obse		O No G	Danith (in							
		es No (
Water Table		es No (
Saturation I	Present? Υα apillary fringe)	es No (Depth (ir	nches):		Wet	land Hydrology Pr	resent? Yes O No 💿		
	ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins	pections),	, if available:			
Remarks:										

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:[J33	
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):none	:	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723871		Long:-121.77733	32	Datu	ım:WGS 8	84
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	cent slop	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	·ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (\subset
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?	(If ne	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point le	ocations, transe	ects, imp	oortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sampled	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
VLOETATION		Absolute	Dominan	t Indicator	Dominance Test	workshee	rt:		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1				_	That Are OBL, FA	CW, or FA	.C: () (A	A)
2					Total Number of D	Dominant			
3				-	Species Across A	Il Strata:	3	(E	B)
4	Total Cover:	0/			Percent of Domina			0	
Sapling/Shrub Stratum	Total Cover.	%			That Are OBL, FA	CVV, or FA	.C: 0.	.0 % (A	A/B)
1					Prevalence Index	workshe	et:		
2				_	Total % Cove	r of:	Multipl		
3				_	OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5	Total Cover:	0/			FAC species FACU species	45	x 3 = x 4 =	180	
Herb Stratum	Total Cover.	%			UPL species	55	x 5 =	275	
1.Elymus caput meduase		40	Yes	UPL	Column Totals:	100	(A)	455	(B)
2.Erodium botrys		25	Yes	FACU			, ,		(-)
3.Bromus hordeaceous	-	20	Yes	FACU	Prevalence			4.55	
4. Centaurea solstitialis		15	No	Not Listed	Hydrophytic Veg				
5					Dominance T				
6				_	Prevalence Ir Morphologica			cupportin	
7					data in Re	marks or o	n a separate	supporting sheet)	g
8	Total Cover:	100			Problematic F	Hydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	100%							
1				_	¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology m	ıust
2	Total Cover:	%		-	Hydrophytic				
% Bare Ground in Herb Stratum 0	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 🖲	5)	
Remarks:					L				

SOIL Sampling Point: <u>U33</u>

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the i	ndicator	or confirm	n the absence of	f indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		lor (moist)	%	Type ¹	_Loc ² _	<u>Texture</u>	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4	100					Gravelly loam	_
	-	· 						
	-							
	-	· 						
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, un	less otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso	· ,		Sandy Redo	` '			1 cm Mu	ick (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,	. (=4)			ck (A10) (LRR B)
	listic (A3) en Sulfide (A4)	L	Loamy Mu Loamy Gle				_	d Vertic (F18) ent Material (TF2)
	ed Layers (A5) (LRR C	;)	Depleted N		(1-2)		<u></u>	xplain in Remarks)
	luck (A9) (LRR D)		Redox Dar	` ,	(F6)		(_	,
Deplete	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	e (F7)		a Indicatora of	f hudrophytic vegetation and
	Oark Surface (A12)		Redox Dep	,	F8)			f hydrophytic vegetation and lydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	ols (F9)				stributed or problematic
	Layer (if present):							·
Type:	Layer (ii present).							
Depth (ii	nches):						Hydric Soil P	resent? Yes No No
Remarks:							.,,	
HYDROLO	nev							
1	drology Indicators: icators (minimum of o	no roquirod: obo	ak all that ann	ls.A			Seconda	ary Indicators (2 or more required)
	Water (A1)	ne required, che	Salt Crus					ater Marks (B1) (Riverine)
🖳	ater Table (A2)		Biotic Cru	` '				diment Deposits (B2) (Riverine)
	ion (A3)			vertebrate	s (B13)			t Deposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri	ne)	= '	Sulfide O			Dra	inage Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	res along	Living Ro	ots (C3) Dry	-Season Water Table (C2)
Drift De	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	!)	Cra	yfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Ire	on Reducti	on in Plow	ed Soils (C6) Sat	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)		k Surface (,			allow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	C-Neutral Test (D5)
Field Obse		O 11 O	5 5 4 6					
		es No •		<i>'</i> —				
Water Table		es No 💽		· · ·				
Saturation I	Present? Υα apillary fringe)	es O No 🗨	Depth (ir	nches):		Wetl	land Hydrology l	Present? Yes No
	ecorded Data (stream	gauge, monitorii	ng well, aerial	photos, pr	evious ins			
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1-	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sampling Point:U34			
Investigator(s):D. Machek, E. Gregg			Section, 7	ownship, Ra	ange:S 32, T 22N, I	R 2E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):none		Slop	oe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723871		Long:-121.77733	2	 Datur	m:WGS	84
Soil Map Unit Name: Clearhayes-Hams	slough, 0 to 2 per	ent slop	oes		NWI cla	ssification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (• No((If no, explair	ı in Remar	ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" presei	nt? Yes •	No (\circ
	- =		oblematic?		eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, transe	cts, imp	ortant fea	atures,	etc.
		•	<u> </u>	<u> </u>	<u> </u>				
Hydrophytic Vegetation Present? Hydric Soil Present?		•	le :	the Sample	1 Area				
Wetland Hydrology Present?	_	•		thin a Wetla		\circ	No 🖲		
Remarks:				iiiii a wona	103				
VEGETATION					±				
Tree Stratum (Use scientific names.)		Absolute	Dominan Species?	t Indicator	Dominance Test				
1.		70 OOVCI	_орссісз:	Otatus	Number of Domina That Are OBL, FA			((A)
2.				_	-		0. 0		(11)
3.					 Total Number of D Species Across Al 		3	((B)
4.					_				(-)
	Total Cover:	%			Percent of Domina That Are OBL, FA) % ((A/B)
Sapling/Shrub Stratum								70 (,
1					Prevalence Index				
2					OBL species	r OT:	Multiply x 1 =	0	
3. 4.				-	FACW species		x 1 = x 2 =	0	
5.					FAC species		x 3 =	0	
·	Total Cover:	%		_	FACU species	30	x 4 =	120	
Herb Stratum	. ota. ooro	70			UPL species	70	x 5 =	350	
1.Agoseris heterophylla		20	Yes	Not Listed	Column Totals:	100	(A)	470	(B)
2.Elymus caput medusae		25	Yes	UPL			, ,	4.70	
3. Layia fremontii		10	No	NI	Prevalence I			4.70	
4.Bromus hordeaceous		30	Yes	FACU	Hydrophytic Veg Dominance To				
5. Centaurea solstitialis		15	No	Not Listed	Prevalence In				
6. 				-	Morphologica			supportir	na
8.				-	data in Re	marks or o	n a separate	sheet)	.9
0	Total Cover:	100		-	Problematic F	lydrophytic	: Vegetation ¹	(Explain))
Woody Vine Stratum	Total Cover.	100%							
1				_	¹ Indicators of hyden be present.	ric soil and	d wetland hyd	n ygolork	nust
2					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0	% Cover of	of Biotic C	Crust	%_	Present?	Yes 🔘	No 💿		
Remarks:									

SOIL Sampling Point: $\underline{U34}$

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	10 YR 4/3						Gravelly loam					
4-16	10 YR 3/4						Gravelly loam					
	-	· 										
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histoso			Sandy Redo					ck (A9) (LRR C)				
	pipedon (A2)		Stripped M Loamy Mud	, ,				ck (A10) (LRR B)				
	Histic (A3)	L			Vertic (F18) ent Material (TF2)							
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)			rplain in Remarks)							
	luck (A9) (LRR D)	"	Depleted M Redox Dar	` '	(F6)		Outlot (2)	tpian in remaine)				
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and				
	Oark Surface (A12)		Redox Dep	,	(F8)		3 Indicators of hydrophytic vegetation and					
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano				
Type:	Layer (ii present).											
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿				
Remarks:							Tiyano con Ti	100 100				
Tromano.												
LIVEROL	201											
HYDROLO												
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)				
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)				
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)				
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)				
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)				
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)				
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)				
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)				
Field Obse												
		es O No 💽		· —								
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):								
Saturation I (includes ca	Present? Yo apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •				
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:					
Remarks:												

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	State: CA Sampling Point: U35			
Investigator(s):D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):none)	Slop	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723198		Long:-121.77731	11	Datum:WGS 84		
Soil Map Unit Name: Clearhayes-Ham		ent slor	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	-			No (
			disturbed		"Normal Circumstan		, _	No ($\overline{}$
			oblematic?		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att							,	atures (etc
						, _F			
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes No			tha Cammia	I A				
Wetland Hydrology Present?	Yes No			the Sampled thin a Wetla		\circ	No 💿		
Remarks:	103		WI	tnin a vvetia	nd? Yes		NO 🕓		
VECETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshee	f ·		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1				_	That Are OBL, FA			(A	4)
2					Total Number of D	Dominant			
3					Species Across A	Il Strata:	2	(E	3)
4					Percent of Domin				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0	0 % (A	¥∕B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	er of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4				_	FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	30	x 4 =	120	
1.Elymus caput medusae		45	Yes	UPL		70	x 5 =	350	(D)
2. Centaurea solstitialis		10	No	Not Listed	Column Totals:	100	(A)	470	(B)
3. Festuca bromoides		10	No	FACU	Prevalence			4.70	
4. Layia fremontii		15	No	NI	Hydrophytic Veg	etation Inc	dicators:		
5. Erodium botrys		20	Yes	FACU	Dominance T				
6				_	Prevalence Ir				
7				_	Morphologica data in Re	ii Adaptatio marks or o	ns" (Provide n a separate	supporting sheet)	g
8				_	Problematic I				
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hydbe be present.	ric soil and	d wetland hyd	drology m	ust
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum0) % Cover o		Crust	%	Vegetation Present?	Yes 🔘	No ①)	
Remarks:									\neg

SOIL Sampling Point: $\underline{\text{U35}}$

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of ind	icators.)
Depth	Matrix			x Features			- .	5
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4	100					Gravelly loam	
		· — — —						
	-							
1Typo: C-C	Concentration, D=Dep	lotion PM-Rod	uood Motrix, C		d or Cooto		roino ² I o	cation: PL=Pore Lining, M=Matrix.
Type: C=C 	concentration, D=Dep	ietion, Rivi=Red	uced Matrix. C	S=Covere	d of Coale	u Sanu G	rains Lo	cation. FL=Fore Litting, W=Wattix.
Hydric Soil	Indicators: (Applicab	le to all LRRs, ui	nless otherwis	e noted.)			Indicators for Pro	blematic Hydric Soils: 3
Histoso		Í	Sandy Redo	-			1 cm Muck (A	
Histic E	pipedon (A2)		Stripped M	, ,			2 cm Muck (A	A10) (LRR B)
📖	listic (A3)		Loamy Mu	-			Reduced Ver	
	en Sulfide (A4)		Loamy Gle	-	(F2)		Red Parent N	,
	ed Layers (A5) (LRR (C)	Depleted N	, ,			Other (Explai	n in Remarks)
	luck (A9) (LRR D)	- (0.4.4)	Redox Dar		. ,			
	ed Below Dark Surface	e (A11)	Depleted D		, ,		3 Indicators of hyd	rophytic vegetation and
l 🖳	Oark Surface (A12) Mucky Mineral (S1)	Ĺ	Redox Dep Vernal Poo	•	F8)			logy must be present.
	Gleyed Matrix (S4)	L	veillai Foc	115 (119)			unless distribu	uted or problematic
	Layer (if present):							
Type:	, , ,							
Depth (ir	nches):		-				Hydric Soil Prese	nt? Yes No •
Remarks:								
HYDROLO								
	drology Indicators:						Casandanil	- dit (O d)
	icators (minimum of o	ne required; che		-				ndicators (2 or more required)
	e Water (A1)		Salt Crus					Marks (B1) (Riverine)
l 🖳 🐧	ater Table (A2)		Biotic Cru					nt Deposits (B2) (Riverine)
l <u>—</u>	ion (A3)		□ '	vertebrate	,			posits (B3) (Riverine)
l 🖃	Marks (B1) (Nonriver i	•		Sulfide O	` '		=	e Patterns (B10)
l <u>—</u>	ent Deposits (B2) (No	,	=		res along	_		son Water Table (C2)
l <u>—</u>	eposits (B3) (Nonrive	rine)			ed Iron (C4	,		Burrows (C8)
==	e Soil Cracks (B6)		<u></u>		on in Plow	ed Soils (′ <u></u>	on Visible on Aerial Imagery (C9)
l <u>—</u>	tion Visible on Aerial I	magery (B7)		Surface (,			Aquitard (D3)
	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC-Ne	eutral Test (D5)
Field Obse		an O Na G	Danith (in					
		es No (· · ·				
Water Table		es No		· · · · · · · · · · · · · · · · · · ·				
Saturation F	Present? Y apillary fringe)	es No (Depth (ir	iches):		Wetl	and Hydrology Pres	ent? Yes O No 💿
	ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	npling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J36	
Investigator(s): D. Machek, E. Gregg			Section, T	Township, Ra	ange: S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	:е		Local reli	ef (concave,	convex, none): none	;	Slo	pe (%):1.5	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	722782		Long:-121.77637	g:-121.776376 Datum:WGS 84			
Soil Map Unit Name: Clearhayes-Ham	slough, 0 to 2 per	cent slop	oes		assification	:Upland			
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	 ks.)		
Are Vegetation Soil or Hy	ydrology sig	nificantly	disturbed'	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in l	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplii	ng point l	ocations, transe	ects, imp	oortant fea	atures, et	
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species?	t Indicator	Dominance Test				
1.		70 OOVCI	_Орссісз:	Otatus	Number of Domin That Are OBL, FA			(A)	
2.			-	_	_		0	(7.)	
3.				•	 Total Number of D Species Across A 		3	(B)	
4.					-				
	Total Cover:	%			 Percent of Domina That Are OBL, FA 			0 % (A/B)	
Sapling/Shrub Stratum					Prevalence Index				
1. 2.					Total % Cove		et: Multipl	v bv:	
3.				-	OBL species	1 01.	x 1 =	0	
4.				-	FACW species		x 2 =	0	
5.				-	FAC species		x 3 =	0	
	Total Cover:	%			FACU species	40	x 4 =	160	
Herb Stratum					UPL species	60	x 5 =	300	
1.Agoseris heterophylla		15	No	Not Listed	Column Totals:	100	(A)	460 (E	
2.Bromus hordeaceous		25	Yes	FACU	Prevalence	Indox - B/	^ _	4.60	
3.Festuca microstachys		25	Yes	Not Listed	Hydrophytic Veg			4.00	
4. Erodium botrys		15	No	FACU	Dominance T				
5. Elymus caput medusae 6.		20	Yes	UPL	Prevalence Ir				
7.				-	Morphologica			supporting	
8.				_	data in Re	marks or o	n a separate	sheet)	
	Total Cover:	100%		-	Problematic F	Hydrophytic	C Vegetation ¹	(Explain)	
Woody Vine Stratum		100%			1				
1. 2.					¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology must	
2	Total Cover:	%			Hydrophytic Vegetation				
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🖲)	
Remarks:			·	·			<u> </u>		

SOIL Sampling Point: $\underline{U36}$

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	10 YR 4/3						Gravelly loam					
4-16	10 YR 3/4						Gravelly loam					
	-	· 										
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histoso			Sandy Redo					ck (A9) (LRR C)				
	pipedon (A2)		Stripped M Loamy Mud	, ,				ck (A10) (LRR B)				
	Histic (A3)	L			Vertic (F18) ent Material (TF2)							
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)			rplain in Remarks)							
	luck (A9) (LRR D)	"	Depleted M Redox Dar	` '	(F6)		Outlot (2)	tpian in remaine)				
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and				
	Oark Surface (A12)		Redox Dep	,	(F8)		3 Indicators of hydrophytic vegetation and					
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano				
Type:	Layer (ii present).											
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿				
Remarks:	101100)						Tiyano con Ti	100 100				
Tromano.												
LIVEROL	201											
HYDROLO												
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)				
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)				
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)				
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)				
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)				
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)				
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)				
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)				
Field Obse												
		es O No 💽		· —								
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):								
Saturation I (includes ca	Present? Yo apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •				
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:					
Remarks:												

Project/Site: The Valley's Edge			City/Cour	ity:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sampling Point:U37			
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): fan te	rrace		Local rel	ef (concave,	convex, none):none	;	Slop	pe (%):1	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	723871		Long:-121.77733	32	Datum: WGS 84		
Soil Map Unit Name: Clearhayes-Hams		ent slor	pes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the				No (
			disturbed		"Normal Circumstan		,	No C)
	-		oblematic?		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att							,	oturos o	**
SOMMANT OF FINDINGS - AU	acii site iliap si	lowing	Sampin	ing point i	ocations, transe	ecis, iiiip	Jortant 1ea		
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_		the Sample					
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 🖲		
VEGETATION									
	Α	Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)	<u> </u>	% Cover	Species	Status_	Number of Domin	ant Specie	S		
1				_	That Are OBL, FA	CW, or FA	C: 0	(A))
3.				_	Total Number of D Species Across A		3	(B	.)
4.					-				,
Sapling/Shrub Stratum	Total Cover:	%			Percent of Domina That Are OBL, FA			0 % (A/	/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	50	x 4 =	200	
Herb Stratum		40	3 7		UPL species	50	x 5 =	250	
1. Erodium botrys		40	Yes	FACU	Column Totals:	100	(A)	450	(B)
2.Elymus caput medusae 3.Festuca microstachys		25 15	Yes Yes	UPL	Prevalence	Index = B/	A =	4.50	
4. Bromus hordeaceous		10	No	Not Listed FACU	Hydrophytic Veg	etation Inc	dicators:		
5.Layia fremontii		5	No	NI	Dominance T				
6.Centaurea solstitialis		5	No	Not Listed	Prevalence Ir	ndex is ≤3.0) ¹		
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supporting	J
8.							n a separate		
	Total Cover:	100%			Problematic F	Hydrophytic	vegetation.	(Explain)	
Woody Vine Stratum		,,,			¹ Indicators of hyd	rio coil one	d watland by	drology mi	ıot
1. 2.				_	be present.	nic son and	i welland nyd	ilology Illu	151
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 💿		
Remarks:					_				\neg

SOIL Sampling Point: <u>U37</u>

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confir	m the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	10 YR 4/3						Gravelly loam					
4-16	10 YR 3/4						Gravelly loam					
	-	· 										
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	uced Matrix. C	S=Covere	d or Coate	d Sand G	irains	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicabl	e to all LRRs, ur	nless otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histoso			Sandy Redo					ck (A9) (LRR C)				
	pipedon (A2)		Stripped M Loamy Mud	, ,				ck (A10) (LRR B)				
	Histic (A3)	L			Vertic (F18) ent Material (TF2)							
	en Sulfide (A4) ed Layers (A5) (LRR 0	;)			rplain in Remarks)							
	luck (A9) (LRR D)	"	Depleted M Redox Dar	` '	(F6)		Outlot (2)	tpian in remaine)				
	ed Below Dark Surface	e (A11)	Depleted D		. ,		o la diantara af	hudrankutia vanatatian and				
	Oark Surface (A12)		Redox Dep	,	(F8)		3 Indicators of hydrophytic vegetation and					
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4) Layer (if present):						1	a.ca or problemano				
Type:	Layer (ii present).											
Depth (ii	nches).		-				Hydric Soil Pr	resent? Yes No 💿				
Remarks:	101100)						Tiyano con Ti	100 100				
Tromano.												
LIVEROL	201											
HYDROLO												
	ydrology Indicators:		al. all that awa	L. A			Seconda	ry Indicators (2 or more required)				
	icators (minimum of o	<u>ne requirea; cne</u>						ter Marks (B1) (Riverine)				
l 🖃	e Water (A1)		Salt Crust	` '				liment Deposits (B2) (Riverine)				
l 🖳 🐧	ater Table (A2)		Biotic Cru Aquatic In		es (B13)			Deposits (B3) (Riverine)				
l <u>—</u>	Marks (B1) (Nonriveri	ne)	Hydrogen					nage Patterns (B10)				
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Living Ro	= =	Season Water Table (C2)				
=	eposits (B3) (Nonriver		_		ed Iron (C4	_	· · · —	yfish Burrows (C8)				
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	ion in Plow	ed Soils ((C6) Satı	uration Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	llow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Ex	olain in Re	emarks)		FAC	C-Neutral Test (D5)				
Field Obse												
		es O No 💽		· —								
Water Table	e Present? Yo	es No 🗨	Depth (in	iches):								
Saturation I (includes ca	Present? Yo apillary fringe)	es O No 💽	Depth (in	iches):		Wet	land Hydrology F	Present? Yes O No •				
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	photos, pr	revious ins	pections),	, if available:					
Remarks:												

Project/Site: The Valley's Edge		_ City/0	County:Butte		San	npling Date:	1-14-15
Applicant/Owner:B. Brouhard				State:CA Sampling Point:U38_39			
Investigator(s):D. Machek, E. Gregg		Secti	on, Township, Ra	ange:S 32, T 22N,	R 2E	•	
Landform (hillslope, terrace, etc.): fan terrace		— Loca	al relief (concave,	convex, none):none		SI	ope (%):1
Subregion (LRR).C - Mediterranean California	Lat:39	— 9.72387	71	Long:-121.77733	32		:um:WGS 84
Soil Map Unit Name: Clearhayes-Hamslough, 0					assification		
Are climatic / hydrologic conditions on the site typical	-		res (•) No (
A 1/ / // 🖂 - :: 🖂						<i>'</i>	No.C
	significan	•		"Normal Circumstan	•		No (
Are Vegetation Soil or Hydrology	naturally	problem	atic? (If n	eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site	map showir	ng sam	npling point l	ocations, transe	∍cts, im _l	portant fe	eatures, etc.
Hydrophytic Vegetation Present? Yes	No 💿						
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Yes	No (Is the Sample	d Aroa			
Wetland Hydrology Present? Yes	No (within a Wetla		\bigcirc	No 💿	
Remarks: This data sheet is to be used for the		point f				NO G	
		1					
VEGETATION							
	Absolut		inant Indicator	Dominance Test	workshee	et:	
Tree Stratum (Use scientific names.)	<u>% Cove</u>	er Spe	cies? Status	Number of Domin			
1				That Are OBL, FA	.CW, or FA	C:	(A)
2			 -	Total Number of D			
3			 -	_ Species Across A	Il Strata:		3 (B)
4				Percent of Domina			
Sapling/Shrub Stratum	tal Cover:	%		That Are OBL, FA	.CW, or FA	vC: 0).0 % (A/B)
1.				Prevalence Index	workshe	et:	
2.				Total % Cove	r of:	Multip	oly by:
3.				OBL species		x 1 =	0
4.			-	FACW species		x 2 =	0
5				FAC species		x 3 =	0
	al Cover:	%		FACU species	35	x 4 =	140
Herb Stratum				UPL species	65	x 5 =	325
1.Agoseris heterophylla		$-\frac{\text{No}}{\text{No}}$	Not Listed	Column Totals:	100	(A)	465 (B)
2-Centaurea solstitialis		$-\frac{\text{Yes}}{\mathbf{X}}$	Not Listed	Prevalence	Index - B	/Δ —	4.65
3.Bromus hordeaceous		Yes	FACU	Hydrophytic Veg			7.03
4.Elymus caput medusae 5.Erodium botrys	$\frac{30}{15}$	$-\frac{\text{Yes}}{\text{No}}$	UPL FACEL	Dominance T			
6.			FACU	Prevalence Ir			
7.				Morphologica			e supportina
8.						n a separat	
	al Cover: 100			Problematic H	- Hydrophytic	c Vegetation	າ¹ (Explain)
Woody Vine Stratum	al Cover: 100	%					
1				¹ Indicators of hyd	ric soil and	d wetland h	ydrology must
2.				be present.			
Tot	al Cover:	%		Hydrophytic			
% Bare Ground in Herb Stratum 0 %	% Cover of Biotic	c Crust	%	Vegetation Present?	Yes 〇	No (•)
Remarks:							
I.							

SOIL Sampling Point: $\underline{U38_39}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirm	n the absence o	f indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 4/3						Gravelly loam	
4-16	10 YR 3/4						Gravelly loam	
	-							
		· — — —						
¹ Type: C=0	Concentration, D=Dep	letion, RM=Red	uced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	le to all LRRs. u	nless otherwise	e noted.)			Indicators for	r Problematic Hydric Soils: 3
Histoso			Sandy Redo					ick (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,				ck (A10) (LRR B)
	Histic (A3)		Loamy Mu	-	. ,			d Vertic (F18)
	gen Sulfide (A4) ed Layers (A5) (LRR (Loamy Gle Depleted M		((F2)			ent Material (TF2) xplain in Remarks)
	luck (A9) (LRR D)	•) [Redox Dar	, ,	(F6)		Other (E	xpiairi iri Kemarks)
	ed Below Dark Surface	e (A11)	Depleted D					
Thick D	Dark Surface (A12)		Redox Dep	,	F8)			f hydrophytic vegetation and lydrology must be present.
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				stributed or problematic
	Gleyed Matrix (S4)						uniess un	stributed of problematic
	Layer (if present):							
Type:	nohoo\.		_				Undria Cail D	resent? Yes No No
Depth (ii Remarks:	ncnes)						Hydric Soil P	resent? Yes No •
Remarks.								
LIVEROLO	20V							
HYDROLO								
	ydrology Indicators:		1 11 41 4				Sacanda	ary Indicators (2 or more required)
	licators (minimum of o	ne requirea; cne						ater Marks (B1) (Riverine)
l ==	e Water (A1)		Salt Crust	` '				diment Deposits (B2) (Riverine)
l <u>□</u>	/ater Table (A2) tion (A3)		Biotic Cru	st (B12) ivertebrate	se (B13)			t Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ine)	= '	Sulfide O				inage Patterns (B10)
l <u>=</u>	ent Deposits (B2) (Nor				eres along	Livina Roo	= =	-Season Water Table (C2)
=	eposits (B3) (Nonriver		=		ed Iron (C4	_		yfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)		Recent Ire	on Reducti	ion in Plow	ed Soils (uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial I	magery (B7)	Thin Muck	Surface ((C7)		Sha	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAC	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present? Ye	es 🔵 No 🤄	Depth (ir	iches):				
Water Table	e Present? Y	es 🦳 No 🤄	Depth (ir	iches):				
Saturation I	•	es O No 🤄	Depth (ir	iches):		Wetl	land Hydrology I	Present? Yes No •
	apillary fringe) ecorded Data (stream	gauge, monitor	ing well, aerial	photos, pr	evious ins			100 0 10
		-	•		·	,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	ity:Butte		Sam	pling Date: 1-	14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	40	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace			Local reli	ef (concave,	convex, none):none	;	Slop	e (%):1.5	
Subregion (LRR):C - Mediterranean Calif	fornia	Lat:39.7	723061		Long:-121.77779	777796 Datum: WGS 84			
Soil Map Unit Name: Clearhayes-Hamslor	ugh, 0 to 2 per	cent slop	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the si	te typical for this	time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hydro	logy sig	gnificantly	disturbed	? Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No (
Are Vegetation Soil or Hydrol	logy na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attac	h site map sl	howing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	tures, e	etc.
Hydrophytic Vegetation Present?	Yes No	•							
, , , ,		•	Is	the Sample	d Area				
Wetland Hydrology Present?	res No			thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
120217111011		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)				Status	Number of Domina				
1				_	That Are OBL, FA	CW, or FA	C: 0	(A	١)
2					Total Number of D	Oominant			
3				_	Species Across A	Il Strata:	3	(B	3)
4				_	Percent of Domina				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0) % (A/	/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	by:	
3.					OBL species		x 1 =	0	
4				_	FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	45	x 4 =	180	
1.Bromus hordeaceous		20	Yes	FACU		55	x 5 =	275	(D)
2.Elymus caput medusae		25	Yes	UPL	Column Totals:	100	(A)	455	(B)
3. Festuca microstachys		15	No	Not Listed	Prevalence			4.55	
4. Erodium botrys		25	Yes	FACU	Hydrophytic Veg				
5. Centaurea solstitialis		15	No	Not Listed	Dominance T				
6				_	Prevalence In				
7					Morphologica data in Re	i Adaptatio marks or o	ns" (Provide s n a separate :	supporting sheet)	J
8					Problematic H				
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hyd	ric soil and	d wetland hyd	lrology mu	ust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum $0%$	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 💿		
Remarks:	_								

SOIL Sampling Point: $\underline{U40}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the i	ndicator	or confirr	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-4	10 YR 4/3						Gravelly loam	-				
4-16	10 YR 3/4	100					Gravelly loam					
		· —— —						-				
		· ———										
	-											
	<u> </u>	·										
								_				
¹ Type: C=0	Concentration, D=Dep	letion, RM=Redu	ıced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.				
								3				
	Indicators: (Applicable 1.(A4)	le to all LRRs, ur	_					Problematic Hydric Soils: 3				
Histoso	Epipedon (A2)	L	Sandy Redo	` '			<u> </u>	ck (A9) (LRR C) ck (A10) (LRR B)				
	Histic (A3)	L	Loamy Mu	. ,	I (F1)		<u> </u>	Vertic (F18)				
	gen Sulfide (A4)	L	Loamy Gle	-	. ,		<u></u>	ent Material (TF2)				
	ed Layers (A5) (LRR C)	Depleted N		()			plain in Remarks)				
	fuck (A9) (LRR D)	´ [Redox Dar	k Surface	(F6)			•				
Deplete	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	e (F7)		³ Indicators of	hydrophytic vogetation and				
	Dark Surface (A12)		Redox Dep	•	F8)			hydrophytic vegetation and				
1 🗀	Sandy Mucky Mineral (S1) Vernal Pools (F9)							wetland hydrology must be present. unless distributed or problematic				
	Gleyed Matrix (S4)						difficos dis	inibated of problematio				
	Layer (if present):											
Type:			-									
Depth (i	nches):						Hydric Soil Pr	resent? Yes No No				
Remarks:												
HYDROL	OGY											
Wetland H	ydrology Indicators:											
	licators (minimum of o	ne required; che	ck all that app	ly)			Seconda	ry Indicators (2 or more required)				
	e Water (A1)		Salt Crus	-			Wa	ter Marks (B1) (Riverine)				
1 🖳	/ater Table (A2)		Biotic Cru	` '			☐ Sed	liment Deposits (B2) (Riverine)				
1 == -	tion (A3)		=	vertebrate	s (B13)			Deposits (B3) (Riverine)				
	Marks (B1) (Nonriveri	ine)		Sulfide O			Drai	nage Patterns (B10)				
1 ==	ent Deposits (B2) (Nor			Rhizosphe	` '	Living Ro	ots (C3) Dry-	Season Water Table (C2)				
	eposits (B3) (Nonriver			of Reduce	_	_	· · · =	yfish Burrows (C8)				
1 ==	e Soil Cracks (B6)	•	=	on Reducti				uration Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial I	magery (B7)	Thin Mucl	k Surface (C7)		Sha	llow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse	ervations:	<u>'</u>										
Surface Wa	ater Present? Y	es O No 💽	Depth (ir	nches):								
Water Table	e Present? Y	es No 💽	Depth (ir	nches):								
Saturation	Present? Y	es O No 🖲	Depth (ir	nches):								
	apillary fringe)						land Hydrology F	Present? Yes No No				
Describe R	ecorded Data (stream	gauge, monitori	ng well, aerial	priotos, pr	evious iris	pections),	ii avaliable:					
Domestic												
Remarks:												
I												

Project/Site: The Valley's Edge		City/Count	y:Butte		Sampling Date: 1-14-15			
Applicant/Owner: B. Brouhard			State: CA Sampling Point: U41					
Investigator(s): D. Machek, E. Gregg		Section, T	ownship, Ra	nge:S 33, T 22N, R 2	E	_		
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):convex		Slop	e (%):4	
Subregion (LRR).C - Mediterranean California	Lat:39.7	723110		Long:-121.768138		Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	pes			NWI classi	fication:[Jpland		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	No ((If no, explain in	Remark	s.)		
Are Vegetation Soil or Hydrology się	gnificantly	disturbed?	Are	"Normal Circumstances	' presení	t? Yes 💿	No (\circ
Are Vegetation Soil or Hydrology na	aturally pro	oblematic?	(If ne	eeded, explain any ansv	ers in R	emarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	ng point le	ocations, transect	s, imp	ortant fea	tures,	etc.
Hydrophytic Vegetation Present? Yes No	•							
	•	ls t	he Sampled	l Area				
, 0,	•	wit	hin a Wetla	nd? Yes	<u> </u>	lo 💿		
Remarks:								
VEGETATION								
	Absolute		Indicator	Dominance Test wo	rksheet:	1		
Tree Stratum (Use scientific names.) 1.	% Cover	Species?	Status	Number of Dominant That Are OBL, FACW			((A)
2.				-		<i>,</i> . 0	(4	^)
3.				 Total Number of Dom Species Across All St 		3	(В)
4.				-		3	(,
Total Cover:	%			 Percent of Dominant That Are OBL, FACW 		0.0) % (/	A/B)
Sapling/Shrub Stratum 1.				Prevalence Index we	orkshoo	··		
2.				Total % Cover of		 Multiply	bv:	
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cover:	%			FACU species	20	x 4 =	80	
Herb Stratum				UPL species	80	x 5 =	400	
1.Elymus caput medusae	40	Yes	UPL	Column Totals:	100	(A)	480	(B)
2.Festuca sp.	30	Yes	Not Listed	Prevalence Inde	- R/Δ	_	4.80	
3. Dodecatheon clevelandii ssp. patulum	10	No	Not Listed	Hydrophytic Vegeta			4.00	
4.Erodium botrys 5.	20	Yes	FACU	Dominance Test				
6.				Prevalence Index				
7.				Morphological Ac	laptation	s ¹ (Provide s	supportin	ng
8.				data in Rema	ks or on	a separate	sheet)	
Total Cover:	100%			Problematic Hyd	ophytic '	Vegetation ¹	(Explain))
Woody Vine Stratum	100 /0			The disease of books	9	d band band		
1				Indicators of hydric be present.	soli and	wetland nyd	rology m	nust
2Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 0 % % Cover		Crust	%	Vegetation	'es 🔘	No 💿		
Remarks:				1				

SOIL Sampling Point: $\underline{U41}$

Profile Des	scription: (Describe	to the depth ne				or confirn	n the absence of ind	licators.)
Depth (inches)	Matrix	0/		x Features		1002	Toytura	Domorto
(inches)	Color (moist)		lor (moist)	%	_Type ¹	Loc ²		Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loam	
	_							
1	Consentation D Don		and Matrice C				210	cation: PL=Pore Lining, M=Matrix.
Type: C=0	Concentration, D=Depl	etion, RIVI=Reau	iced Matrix. C	S=Covere	d or Coate	ed Sand G	rains Lo	cation. PL=Pore Lining, M=Matrix.
Hvdric Soil	Indicators: (Applicabl	e to all LRRs. un	less otherwise	e noted.)			Indicators for Pro	blematic Hydric Soils: 3
Histos		Γ	Sandy Redo	-			1 cm Muck (
Histic I	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck (A10) (LRR B)
🖳	Histic (A3)		Loamy Mu	-	, ,		Reduced Ve	
	gen Sulfide (A4)		Loamy Gle		(F2)			Material (TF2)
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	. ,	(E0)		Other (Expla	in in Remarks)
	/luck (A9) (LRR D) ed Below Dark Surface		Redox Dar Depleted D		` '			
ı Ш ·	ed веюж вагк запасе Dark Surface (А12)	(ATT)	Redox Dep				3 Indicators of hyd	Irophytic vegetation and
l 🖳	Mucky Mineral (S1)	<u> </u>	Vernal Poo	•	10)		wetland hydro	ology must be present.
	Gleyed Matrix (S4)	L	_ voinari oc	.0 (1 0)			unless distrib	uted or problematic
	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Prese	ent? Yes No 💿
Remarks:							-	
HYDROL	ngv							
	ydrology Indicators:							
	dicators (minimum of o	ne required: che	ck all that ann	lv)			Secondary I	ndicators (2 or more required)
	e Water (A1)	ne required, che						Marks (B1) (Riverine)
	,		Salt Crust					ent Deposits (B2) (Riverine)
<u> </u>	Vater Table (A2) tion (A3)		Biotic Cru	si (b12) vertebrate	o (P12)			posits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri	no)	≓ '	Sulfide O	` '			je Patterns (B10)
l 🗀	ent Deposits (B2) (Nor	· '	= ' '		res along	Living Por	=	ason Water Table (C2)
🖳	ent Deposits (B2) (Noriver eposits (B3) (Nonriver	,			ed Iron (C	-	(/ /	n Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)				on in Plow	,		on Visible on Aerial Imagery (C9)
=	e 3011 Cracks (B0) ation Visible on Aerial II	magery (B7)	Thin Muck			reu Solis (′ <u></u>	Aquitard (D3)
l 🖃	Stained Leaves (B9)	magery (br)	=	olain in Re	,			eutral Test (D5)
Field Obse		L	Other (EX	Jiaiii iii iko	лпатко)			, dital 100t (D0)
		es No 💽	Depth (ir	ches):				
Water Tabl		es No (•		· ·				
Saturation	_	es O No (•		· -				
(includes c	apillary fringe)						and Hydrology Pres	sent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorii	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-14-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	آ42	
Investigator(s): D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 33, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conv	ex	Slop	pe (%): <u>4</u>	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	723110		Long:-121.76813	38	Datu	m:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	Upland		
Are climatic / hydrologic conditions on the	ne site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or H	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstand	ces" presei	nt? Yes 💿	No (\supset
Are Vegetation Soil or H	ydrology	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplii	ng point l	ocations, transe	ects, imp	ortant fea	atures, (etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tron Charles (Honoriantific common)		Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.) 1.	<u>`</u>	% Cover	Species?	_Status_	Number of Domina That Are OBL, FA			(/	A)
2.					-		0. 0	(/	٦)
3.				_	 Total Number of D Species Across A 		3	(E	В)
4.					Percent of Domina	ant Species			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A	4/B)
1.					Prevalence Index	workshe	et:		
2.				-	Total % Cove	r of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4.			-		FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
Llowb Ctroture	Total Cover:	%			FACU species	25	x 4 =	100	
Herb Stratum 1.Elymus caput medusae		35	Yes	UPL	UPL species	75	x 5 =	375	
2. Erodium botrys		25	Yes	FACU	Column Totals:	100	(A)	475	(B)
3. Festuca sp.		25	Yes	Not Listed	Prevalence	Index = B/	A =	4.75	
4. Dodecatheon clevelandii ssp. pa	 itulum	15	No	Not Listed	Hydrophytic Veg	etation Inc	dicators:		
5.			-	-	Dominance T	est is >50%	6		
6.					Prevalence In				
7.					Morphologica	l Adaptatio	ns ¹ (Provide n a separate	supporting	g
8					- Problematic H		•	,	
Woody Vine Stratum	Total Cover:	100%				, , ,	3	(1 /	
1				_	¹ Indicators of hyd be present.	ric soil and	wetland hyd	drology m	ust
2		0/			Hydrophytic				
% Bare Ground in Herb Stratum (Total Cover: % Cover of		Prijet.	0/	Vegetation Present?	Yes 〇	No 💽	١	
Remarks:		טווטום ול		<u>%</u>	FIESEIIL!	162	NO (
Nomans.									

SOIL Sampling Point: $\underline{U42}$

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features			T	5
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	2.5 YR 2.5/3						Gravelly clay loan	1
	-							
	-							-
1- 0.6								21 Con Di Dana Linia M Marina
Type: C=C	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histoso			Sandy Redo					ck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped M	atrix (S6)			2 cm Mud	ck (A10) (LRR B)
	Histic (A3)		Loamy Mu	•	, ,			Vertic (F18)
	en Sulfide (A4)	.,	Loamy Gle		(F2)			ent Material (TF2)
	ed Layers (A5) (LRR C luck (A9) (LRR D))	Depleted Marked Redox Dar	` '	(F6)		Uther (E)	xplain in Remarks)
l	ed Below Dark Surface	e (A11)	Depleted D		. ,			
I Ш .	Dark Surface (A12)		Redox Dep		` '			hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				/drology must be present.
	Gleyed Matrix (S4)						uniess ais	tributed or problematic
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Soil Pr	resent? Yes No No
Remarks:								
HYDROLO	OGY							
Wetland Hy	ydrology Indicators:							
Primary Ind	icators (minimum of or	ne required; chec	k all that app	ly)				ry Indicators (2 or more required)
Surface	e Water (A1)		Salt Crus	t (B11)				ter Marks (B1) (Riverine)
<u> </u>	ater Table (A2)		Biotic Cru	. ,				iment Deposits (B2) (Riverine)
l 🖳	tion (A3)		= '	vertebrate				Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	·	= ' '	Sulfide O	. ,		= =	nage Patterns (B10)
l <u>—</u>	ent Deposits (B2) (Nor	· _	=	Rhizosphe	_	_	` / 📙	Season Water Table (C2)
🖳	eposits (B3) (Nonriver e Soil Cracks (B6)	ine)	=	of Reduce on Reducti				/fish Burrows (C8) uration Visible on Aerial Imagery (C9)
l <u>—</u>	tion Visible on Aerial I	mageny (B7)	=	s Surface (eu solis (· <u></u>	llow Aquitard (D3)
	Stained Leaves (B9)	magery (Br)	=	plain in Re	,			C-Neutral Test (D5)
Field Obse	. ,	L		p.a				
		es O No 💿	Depth (ir	nches):				
Water Table		es No 💿	Depth (ir	<i>′</i> —				
Saturation F		es O No 💿	Depth (ir	· · · · · · · · · · · · · · · · · · ·				
(includes ca	apillary fringe)						land Hydrology F	Present? Yes O No •
Describe Re	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Domest								
Remarks:								

Project/Site: The Valley's Edge			City/Cot	unty:Butte		San	npling Date:	11/11/14	
Applicant/Owner:B. Brouhard					State:CA	Sam	npling Point:	U43	
Investigator(s): D. Machek, E. Gregg			Section	, Township, Ra	ange:S 32, T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terra	ace		Local re	elief (concave,	convex, none):con	vex	SI	ope (%):3	
Subregion (LRR):C - Mediterranean		Lat:39.7	720194	,	Long:-121.7777			um:WGS	84
Soil Map Unit Name: Doemill-Jokers					_	lassification			
	*	-	20 V 20	No.					
Are climatic / hydrologic conditions on t							,		
	, , ,	gnificantly			"Normal Circumstar			No (
Are Vegetation Soil or H	Hydrology na	iturally pro	oblemation	c? (If n	eeded, explain any	answers in	Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map sl	howing	samp	ling point l	ocations, trans	ects, imp	portant fe	atures,	etc.
Lludraphytic Variation Dragant?	Yes No	•							
Hydrophytic Vegetation Present? Hydric Soil Present?		•	١.	a tha Campla	d Aroo				
Wetland Hydrology Present?		•		s the Sample vithin a Wetla			No 💿		
Remarks:	100			vitiliii a vvetia	iiu: ies	• •	NO (S		
VEGETATION									
		Absolute		ant Indicator	Dominance Tes	t workshee	et:		
Tree Stratum (Use scientific names	.)	% Cover	Specie	s? Status	Number of Domin			_	
1					That Are OBL, F	ACW, or FA	ıC:	0 ((A)
2					Total Number of				
3					_ Species Across A	All Strata:		2 ((B)
4					Percent of Domir				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, F	ACW, or FA	'C: 0	0.0 %	(A/B)
1.					Prevalence Inde	x workshe	et:		
2.					Total % Cov	er of:	Multip	oly by:	
3.			-		OBL species		x 1 =	0	
4.					FACW species	10	x 2 =	20	
5.					FAC species		x 3 =	0	
	Total Cover:	%			FACU species		x 4 =	0	
Herb Stratum		4.0	.		UPL species	90	x 5 =	450	
1. Agoseris heterophylla		10	No	Not Listed	Column Totals:	100	(A)	470	(B)
2. Centaurea solstitialis		15	No	Not Listed	_ Prevalence	Index - B	/Δ —	4.70	
3. Festuca microstachys		30	Yes	Not Listed	Hydrophytic Ve			7.70	
4.Blennosperma nanum 5.Elymus caput medusae		10 25	$\frac{\text{No}}{\text{Yes}}$	FACW UPL	Dominance	_			
6.Layia fremontii		10	$\frac{1es}{No}$	NI	Prevalence I				
7.		10	-140		Morphologic	al Adaptatio	ons¹ (Provide	e supportir	ng
8.							on a separat		Ü
·	Total Cover:	100			Problematic	Hydrophytic	c Vegetation	ı¹ (Explain))
Woody Vine Stratum	rotal cover.	100%							
1					¹ Indicators of hy	dric soil and	d wetland h	ydrology m	nust
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No (•)	
Remarks: Area is comprised of m									erial
photographs suggest th			-		•				
does not support wetlan	•			1	r		T		

SOIL Sampling Point: $\underline{U43}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes care	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

2. Total Number of Dominant Species Across All Strata: 4 (E	Are Vegetation Soil On Machek, E. Gregg Solvestigator Soil Or Hydrology naturally provided in the solution of the Vegetation Soil Or Hydrology naturally provided in the solution of the solut	Local 72019 rear? Y	relief (concave	ange:S 32, T 22N, convex, none):conv Long:-121.77770	R 2E vex 04	Slo	ppe (%):3	
Local relief (concave, convex, none): convex	Landform (hillslope, terrace, etc.): terrace Subregion (LRR).C - Mediterranean California Lat:39. Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation Soil or Hydrology significantly Are Vegetation Soil or Hydrology naturally pr	Local 72019 rear? Y	relief (concave	convex, none): conv Long: 121.77770	vex 04	Datu	· · · · —	
Solimant (Use scientific names.) Tree Stratum (Use scientific names.) Absolute Species Species Species Species Species Status. Total Cover: \$ SapilingShrub Stratum Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Tota	Subregion (LRR) C - Mediterranean California Lat:39. Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation Soil or Hydrology significantly Are Vegetation Soil or Hydrology naturally pr	- .72019 ear? Y	4	Long:-121.77770	04	Datu	· · · · —	
Solimant (Use scientific names.) Tree Stratum (Use scientific names.) Absolute Species Species Species Species Species Status. Total Cover: \$ SapilingShrub Stratum Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Total Mydrophytic Vegetation Indicator: \$ Total Cover: \$ Tota	Subregion (LRR) C - Mediterranean California Lat:39. Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation Soil or Hydrology significantly Are Vegetation Soil or Hydrology naturally pr	- .72019 ear? Y	4	Long:-121.77770	04	Datu	· · · · —	
Soli Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes New Ideas (Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation Soil or Hydrology significantly Are Vegetation Soil or Hydrology naturally pr	ear? Y					IIII. 11 OB	84
Absolute Dominant Indicator Hydrology Present? Yes No (If no, explain in Remarks.)	Are climatic / hydrologic conditions on the site typical for this time of your every vegetation Soil or Hydrology significantly are Vegetation Soil or Hydrology naturally provided in the site typical for this time of your every vegetation or Hydrology naturally provided in the site typical for this time of your every vegetation.		es No (INVVI CIO	assincanor	ul Inland		-
Sol or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes	Are Vegetation Soil or Hydrology significantly are Vegetation Soil or Hydrology naturally pr		es 🜘 💮 No (<u> </u>				
Absolute Vegetation Present? Yes No Absolute Soli Present? Yes No Absolute Surface Stratum (Use scientific names.) Absolute Sapling/Shrub Stratum Total Cover: % Total Cove	Are Vegetation Soil or Hydrology naturally pr	y disturl		•		,		_
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, the provided support of the status of t			bed? Are	"Normal Circumstan	ces" prese	nt? Yes (●)	No (\bigcirc
Hydrophytic Vegetation Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Present? Yes No land No land Hydrology Indicator Species Pacture Wetland Hydrology Present? No land No land Hydrology Indicator Species Pacture No land No land Hydrology Indicator Species Pacture No land No land Hydrophytic Vegetation of Hydrophytic Vegetation hydrology Mydrophytic Vegetation hydrophytic Vegetation hyd	SUMMARY OF FINDINGS - Attach site map showing	roblema	atic? (If n	eeded, explain any a	ınswers in	Remarks.)		
Hydric Soil Present? Wetland Hydrology Present? Yes No No No within a Wetland? Yes No No within a Wetland? Yes No No Tree Stratum (Use scientific names.) 1. Tree Stratum (Use scientific names.) 1. Total Cover: Sapling/Shrub Stratum Total Cover: 3. 4. 2. 3. 4. 5. 7. 7. 7. 7. 7. 7. 7. 7. 7		g sam	pling point l	ocations, trans	ects, im	portant fe	atures,	etc
Hydric Soil Present? Yes No No Soil Is the Sampled Area within a Wetland? Yes No Soil Present? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Soil Is the Sampled Area within a Wetland? Yes No Is Is the Sampled Area within a Wetland? Yes No Soil Is Is It sate Sampled Area within a Wetland? Yes No Soil Is Is It sate Sampled Area within a Wetland? Yes No Soil Is Indicator Species That Are OBL, FACW, or FAC: 0 (if It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is It is Indicator Species Across All Strata: 4 (if It is It is It is It is It is It is Indicator Species Across All Strata: 4 (if It is It								
Wetland Hydrology Present? Yes No Image: No Remarks: VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover Species? Dominant Indicator Species? Number of Dominant Species Number of Dominant Species Across All Strata: 1. Total Nover: % 2. Total Number of Dominant Species Across All Strata: 4 (E 2. Total Cover: % Percent of Dominant Species Across All Strata: 4 (E 1. Percent of Dominant Species Across All Strata: 4 (E 2. Total Cover: % Prevalence Index worksheet: 1. Total Cover: Total Scover of: Multiply by: 3. OBL species x 1 = 0 0 4. FACW species x 2 = 10 FAC species x 3 = 0 5. FAC species x 3 = 0 FAC species x 3 = 0 FAC species x 3 = 0 FAC species x 5 = 275 2.Elymus caput medusae 20 Yes UPL species 55 x 5 = 275 2.Elymus caput medusae 20 Yes Prevalence Index B/A = 4.45 4.Blennosperma nanum 5 No FACW Prevalence Index is \$3.0° Prevalence Index is \$3.0° Prevalence Index	, , , , , , , , , , , , , , , , , , , ,							
Number of Dominant Species Number of Domi	•		_			6		
Absolute Species Status Status Species Status Status Status Species Status			within a Wetla	ind? Yes		No (•		
Absolute	Tromaino.							
Total Cover Species Status Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A		Domi	nant Indicator	Dominance Test	workshee	et:		
3. Total Number of Dominant Species Across All Strata: 4 (templane) Sapling/Shrub Stratum Total Cover: % 1. Prevalence Index worksheet:	<u>Tree Stratum</u> (Use scientific names.) <u>% Cover</u>			Number of Domin	ant Specie	es) ((A)
3. 4. Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A Species That Are OBL, FACW, or F	2.			Total Number of F	Cominant			
Total Cover: Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Total Cover Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Sapling/Shrub Stratum Total Cover: Sapling/Shrub Stratum Sapling/Shrub Shrub	3.					4	1 ((B)
Total Cover: % Total Cover: % That Are OBL, FACW, or FAC: 0.0 % (And Are OBL, FACW, or FACW, or FAC: 0.0 % (And Are OBL, FACW, or FAC: 0.0 % (And Are OBL, FACW, or FAC	4.			Percent of Domin	ant Specie	ne .		
Prevalence Index worksheet: 2. Total % Cover of: Multiply by: 3. OBL species x 1 = 0 4. FACW species 5 x 2 = 10 5. FACW species x 3 = 0 FAC species x 3 = 0 FACU species x 3 = 0 FACU species x 3 = 0 FACU species x 4 = 160 UPL species 55 x 5 = 275 Column Totals: 100 (A) 445 4.Blennosperma nanum 5 No FACU FACU 6.Layia fremontii 10 No NI Prevalence Index = B/A = 4.45 8. Dominance Test is >50% Prevalence Index is ≤3.0¹ Dominance Test is >50% Prevalence Index is ≤3.0¹ Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) **Moody Vine Stratum** **Indicators of hydric soil and wetland hydrology metaporting the present. **Indicators of hydric soil and wetland hydrology metaporting data in Remarks or on a separate sheet) **Indicators of hydric soil and wetland hydrology metaporting data in Remarks or on a separate sheet) <tri>**Indicators of hydric soil and wetland hydrology metaporting d</tri>	Total Cover: %						.0 % ((A/B)
2.				Prevalence Index	v workshe	ot:		
3. 4. 5.				_			ly hy:	
FACW species 5 x 2 = 10				_				
5.	·				5		10	
Total Cover: % Herb Stratum 1. Erodium botrys 2. Elymus caput medusae 3. Festuca microstachys 4. Blennosperma nanum 5. No FACW 5. Bromus hordeaceous 6. Layia fremontii 7. Centaure solstitialis 8. Total Cover: 100 % Woody Vine Stratum 1. Total Cover: % Total Cover: % Total Cover: % FACU species 40 x 4 = 160 UPL species 55 x 5 = 275 Column Totals: 100 (A) 445 Prevalence Index = B/A = 4.45 Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) **Indicators of hydric soil and wetland hydrology m be present.* Hydrophytic Vegetation **Indicators of hydric soil and wetland hydrology m be present.*				_		x 3 =	0	
Herb Stratum 1. Erodium botrys 25 Yes FACU 2. Elymus caput medusae 20 Yes UPL 2. Elymus caput medusae 20 Yes UPL 2. Elymus caput medusae 20 Yes Not Listed Prevalence Index = B/A = 4.45				-	40	x 4 =	160	
1. Erodium botrys25YesFACUColumn Totals:100(A)4452. Elymus caput medusae20YesUPLPrevalence Index = B/A =4.453. Festuca microstachys20YesNot ListedPrevalence Index = B/A =4.454. Blennosperma nanum5NoFACWHydrophytic Vegetation Indicators:5. Bromus hordeaceous15YesFACUDominance Test is >50%6. Layia fremontii10NoNIPrevalence Index is $\leq 3.0^1$ 7. Centaure solstitialis5NoNot ListedMorphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)8.Total Cover:100%Woody Vine Stratum1Problematic Hydrophytic Vegetation¹ (Explain)1.1Indicators of hydric soil and wetland hydrology metaperate.2.Total Cover:Worphoptic Vegetation				UPL species	55	x 5 =	275	
2. Elymus caput medusae 20 Yes UPL Prevalence Index = B/A = 4.45 3. Festuca microstachys 20 Yes Not Listed Prevalence Index = B/A = 4.45 4. Blennosperma nanum 5 No FACW Hydrophytic Vegetation Indicators: 5. Bromus hordeaceous 15 Yes FACU Dominance Test is >50% 6. Layia fremontii 10 No NI Prevalence Index = B/A = 4.45 7. Centaure solstitialis 5 No Not Listed Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. Problematic Hydrophytic Vegetation¹ (Explain) Woody Vine Stratum ¹Indicators of hydric soil and wetland hydrology metal be present. 1. Hydrophytic Vegetation 2. Hydrophytic Vegetation	1.Erodium botrys 25	Yes	FACU	_ Column Totals:	100	(A)	445	(B
4. Blennosperma nanum 5 No FACW Hydrophytic Vegetation Indicators: 5. Bromus hordeaceous 15 Yes FACU Dominance Test is >50% 6. Layia fremontii 10 No NI Prevalence Index is ≤3.0¹ 7. Centaure solstitialis 5 No Not Listed Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. Problematic Hydrophytic Vegetation¹ (Explain) 1. ¹Indicators of hydric soil and wetland hydrology metable present. 1. Hydrophytic Vegetation Vegetation Hydrophytic Vegetation		Yes	UPL			, ,	~	
5. Bromus hordeaceous 6. Layia fremontii 7. Centaure solstitialis 8. Total Cover: 100% Total Cover: Total C			Not Listed				4.45	
6. Layia fremontii 7. Centaure solstitialis 8. Total Cover: 100% Woody Vine Stratum 1. Total Cover: 9 To		_	FACW					
7. Centaure solstitialis 5 No Not Listed Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Woody Vine Stratum 1			FACU					
8. Total Cover: 100% Woody Vine Stratum 1.			NI			•		
Total Cover: 100% Woody Vine Stratum 1		No_	Not Listed					ıg
Woody Vine Stratum 1				l)
1								
2. Total Cover: % Hydrophytic Vegetation				¹ Indicators of hyd	lric soil an	d wetland hy	drology n	nust
Total Cover: % Hydrophytic Vegetation		_		be present.				
Vegetation				Hydrophytic				
			0/	_	V (No G	5	
Remarks: Area is comprised of mound-swale topography on steep, rocky slope. Water is conveyed downslope via sheet flow. Ae	% Bare Ground in Herp Stratum 0 % % Cover of Blotic 9	Crust _	<u></u>	Present?	res 🔾	NO (

SOIL Sampling Point: $\underline{U44}$

Profile Des	cription: (Describe t	o the depth nee	ded to docur	nent the i	indicator	or confirr	n the absence	of indicators.)
Depth	Matrix			c Features				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	2.5 YR 2.5/3	100					Clay loam	cobble present
¹ Type: C=C	Concentration, D=Deple	etion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	2 Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, unl	ess otherwise	noted.)			Indicators	for Problematic Hydric Soils: 3
Histoso		· _	Sandy Redox					Muck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
Black F	listic (A3)		Loamy Muc	-	. ,			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gley		(F2)		_	arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other	(Explain in Remarks)
	uck (A9) (LRR D)	(4.44)	Redox Dark		. ,			
	ed Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators	of hydrophytic vegetation and
	Park Surface (A12) Mucky Mineral (S1)		Redox Depi		F8)			d hydrology must be present.
	Gleyed Matrix (S4)		J Veillai Fooi	5 (1-9)			unless	distributed or problematic
	Layer (if present):							
Type:	Layer (ii present).							
	ochoc):						Hydric Soil	Present? Yes No •
Depth (in		2 in about from t	on of moun	d 4 in ab	aa antaida	o of mou		
			•				_	nounts of lava rock scattered near r, it is steep and extremely rocky so
	vater runs off very ra		tiai ioi wetia	ilius/iliot	iliu-swait	e topogra	apiry, noweve	i, it is steep and extremely locky so
V	valer runs off very fo	apidiy.						
HYDROLO	OGY							
	/drology Indicators:							
_	icators (minimum of or	ne required: chec	k all that appl	v)			Secor	ndary Indicators (2 or more required)
	e Water (A1)	<u>.о точиной, отго</u>	Salt Crust					Water Marks (B1) (Riverine)
=	ater Table (A2)	L	Biotic Crus	. ,				Sediment Deposits (B2) (Riverine)
	ion (A3)	L	Aquatic In		s (B13)			Prift Deposits (B3) (Riverine)
	Marks (B1) (Nonriveri i	1 e)	Hydrogen					Orainage Patterns (B10)
	ent Deposits (B2) (Non	· =	Oxidized F		` '	Livina Ro	= =	Ory-Season Water Table (C2)
	eposits (B3) (Nonriver i		Presence		_	-		Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iro		,	,		Saturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	nagery (B7)	Thin Muck			(00.00		Shallow Aquitard (D3)
	Stained Leaves (B9)	ago.y (<i>21)</i> [Other (Exp					AC-Neutral Test (D5)
Field Obse	. ,	L		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Triarro)		Ш.	7.6 (26)
		es No 💿	Depth (in	chec).				
		_		<i>′</i> —				
Water Table		es No 💿	Depth (in	· · ·				
Saturation F (includes ca	Present? Ye pillary fringe)	es No 💿	Depth (in	cnes):		Wet	land Hydrolog	y Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial p	ohotos, pr	evious ins	pections),	if available:	
Remarks:								

Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slope Are climatic / hydrologic conditions on the site typical for this tim Are Vegetation Soil or Hydrology signi	_at:39.7 es ne of ye ificantly rally pro	Local re 720194 ear? Yes disturbe	elief (concave,		2 2E ex 4	Datu	J45 pe (%):3 m: <u>WGS</u>	
Landform (hillslope, terrace, etc.): terrace Subregion (LRR):C - Mediterranean California L Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slope Are climatic / hydrologic conditions on the site typical for this tim Are Vegetation Soil or Hydrology signi Are Vegetation Soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map sho	_at:39.7 es ne of ye ificantly rally pro	Local re 720194 ear? Yes disturbe	elief (concave,	convex, none):conve Long:-121.77770	ex 4 ssification	Datu	· · · · -	
Subregion (LRR): C - Mediterranean California L Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slope Are climatic / hydrologic conditions on the site typical for this tim Are Vegetation Soil or Hydrology signi Are Vegetation Soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map sho	ne of ye ificantly rally pro	var? Yes disturbe	s No (Long:-121.777704	4 ssification	Datu	· · · · -	
Subregion (LRR): C - Mediterranean California L Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slope Are climatic / hydrologic conditions on the site typical for this tim Are Vegetation Soil or Hydrology signi Are Vegetation Soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map sho	ne of ye ificantly rally pro	var? Yes disturbe	s No (Long:-121.777704	4 ssification	Datu	· · · · -	
Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slope Are climatic / hydrologic conditions on the site typical for this time Are Vegetation Soil or Hydrology signical are Vegetation soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map shows the site of t	ne of ye ificantly rally pro	ear? Yes disturbe	s • No (NWI clas	ssification		<u>** </u>	
Are climatic / hydrologic conditions on the site typical for this time. Are Vegetation Soil or Hydrology signic are Vegetation Soil or Hydrology nature. SUMMARY OF FINDINGS - Attach site map shows the site of	ne of ye ificantly rally pro	disturbe	ed? Are			.Opianu		
Are Vegetation Soil or Hydrology signing Are Vegetation Soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map show the Hydrophytic Vegetation Present? Yes No (1)	ificantly	disturbe	ed? Are	(If no, explain		. `		
Are Vegetation Soil or Hydrology nature SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No	rally pro	oblemation				,		
SUMMARY OF FINDINGS - Attach site map sho Hydrophytic Vegetation Present? Yes No (6)			c2 (If no	"Normal Circumstanc	es" prese	nt? Yes 💿	No	O
Hydrophytic Vegetation Present? Yes No	owing		C: (II II	eeded, explain any ar	swers in	Remarks.)		
, , , ,		samp	ling point l	ocations, transe	cts, imp	oortant fe	atures	, etc
, , , ,	2							
nyulic Soli Fleselit? Yes (No (١.						
Wetland Hydrology Present? Yes No			s the Sample		\circ	No 💿		
Remarks:		Į V	within a Wetla	nd? Yes	<u>()</u>	NO 🛡		
VEGETATION				-				
	solute Cover		ant Indicator s? Status	Dominance Test v				
1.	OOVCI	Орсско	otatus_	Number of Domina That Are OBL, FAC)	(A)
2.				-		. (,	(71)
3.				Total Number of Do Species Across All		۷	1	(B)
4.				-				(5)
Total Cover:	%			Percent of Domina That Are OBL, FAC			0 %	(A/B)
Sapling/Shrub Stratum	70						.0 %	(/////)
1				Prevalence Index		et:		
2				Total % Cover	of:	<u>Multip</u>		_
3				OBL species		x 1 =	0	
4				FACW species	5	x 2 =	10	
5				FAC species		x 3 =	0	
Total Cover: Herb Stratum	%			FACU species	40	x 4 =	160	
1.Erodium botrys	25	Yes	FACU	UPL species	55	x 5 =	275	(5)
2.Elymus caput medusae		Yes	UPL	Column Totals:	100	(A)	445	(B)
3. Festuca microstachys		Yes	Not Listed	Prevalence Ir	ndex = B/	'A =	4.45	
4.Blennosperma nanum		No	FACW	Hydrophytic Vege	tation Inc	dicators:		
5.Bromus hordeaceous		Yes	FACU	Dominance Te	st is >50%	%		
6.Layia fremontii		No	NI	Prevalence Inc	dex is ≤3.0	O ¹		
7.Centaure solstitialis		No	Not Listed	Morphological				ng
8.				l		n a separate	. '	
Total Cover:	100%			Problematic H	ydrophytic	C Vegetation	' (Explair	1)
Woody Vine Stratum	100 /0			1				
1				¹ Indicators of hydr be present.	ic soil and	d wetland hy	drology	must
2				-				
Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum $0~\%$ % Cover of $0~\%$	Biotic C	crust	%	Present?	Yes 🔘	No 🤄		
Remarks: Area is comprised of mound-swale topograph	hy on s	steep. r	ocky slope. V	Vater is conveved of	lownslor	e via sheet	flow. A	Aeria

SOIL Sampling Point: $\underline{U45}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (,-							
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes care	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	inty:Butte		Sam	npling Date:	11-11-14	ļ
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:	U46	
Investigator(s): D. Machek, E. Gregg			Section,	Township, Ra	ange:S 32, T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terrace				•	convex, none):conv		Slo	ope (%):3	
Subregion (LRR):C - Mediterranean Califor	mia	Lat:39.7		,	Long:-121.7777			um:WGS	
Soil Map Unit Name: Doemill-Jokerst, 3 to			,201) !		_	assification		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
			0.14	O 11 (
Are Climatic / hydrologic conditions on the site	· ·						,		
Are Vegetation Soil or Hydrolog	· 🛁		disturbe		"Normal Circumstan) No	\bigcirc
Are Vegetation Soil or Hydrolog	y nat	urally pro	oblematio	c? (If n	eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach	site map sh	owing	sampl	ling point l	ocations, trans	ects, imp	ortant fe	atures,	, etc
•									
, 1 ,	No No								
*	No No			s the Sample			6		
Remarks:	; (NO		l w	vithin a Wetla	nd? Yes	0	No 💿		
VEGETATION		h b - (-	Descion		Dentisana Tari				
Tree Stratum (Use scientific names.)		bsolute 6 Cover		nt Indicator s? Status	Dominance Test				
1.					Number of Domin			0	(A)
2.					_				()
3.				_	 Total Number of I Species Across A 		٤	4	(B)
4.				_	-			•	(-)
	Total Cover:	%			 Percent of Domin That Are OBL, FA 			0.0 %	(A/B)
Sapling/Shrub Stratum								.0 /0	(,,,,,
1					Prevalence Inde				
2					Total % Cove	er ot:	Multip	0 <u>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 </u>	-
3					OBL species FACW species	5	x 1 = x 2 =	10	
4					FAC species	3	x 2 =	0	
5	Total Cover:	0/			FACU species	40	x 4 =	160	
Herb Stratum	Total Cover.	%			UPL species	55	x 5 =	275	
1.Erodium botrys		25	Yes	FACU	_ Column Totals:	100	(A)	445	(B)
2. Elymus caput medusae		20	Yes	UPL	_ Column rotals.	100	(A)	443	(D)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	Index = B/	A =	4.45	
4.Blennosperma nanum		5	No	FACW	Hydrophytic Veg	etation Inc	dicators:		
5.Bromus hordeaceous		15	Yes	FACU	Dominance T	est is >50%	6		
6. Layia fremontii		10	No	NI	Prevalence II				
7. Centaure solstitialis		5	No	Not Listed	Morphologica		ons¹ (Provide on a separate		ng
8.					- Problematic I				١)
Woods Vino Chrotime	Total Cover:	100%		- 	FIODIEINAUCI	ιγαιορπγία	, vegetation	(Explain	'/
Woody Vine Stratum					¹ Indicators of hyd	lric soil and	d wetland h	vdrology i	must
1					be present.		- Foliana II	, 3.0.09, 1	
2	Total Cover:	%			Hydrophytic				
					Vegetation	_			
% Bare Ground in Herb Stratum0 %	% Cover o			%	Present?	Yes 🔘	No (
Remarks: Area is comprised of mound-s			-		•				
photographs suggest the poten	tial for wetla	nds with	hin the a	area upland s	ample was taken,	but due to	rapid run	off the a	rea
does not support wetlands.									

SOIL Sampling Point: $\underline{U46}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (,-							
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(5-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes care	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

	lope (%):3 tum: WGS 84
Landform (hillslope, terrace, etc.): terrace Subregion (LRR).C - Mediterranean California Lat:39.720194 Long:-121.777704 Date Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slopes NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for the strength of the sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No No No No No No No No No N	No O
Subregion (LRR).C - Mediterranean California Lat:39.720194 Long:-121.777704 Date Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are Vegetation Soil or Hydrology naturally problematic? Are Vegetation Soil or Hydrology naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No No Is the Sampled Area within a Wetland? Yes No No No No No No No No	No O
Subregion (LRR).C - Mediterranean California Lat:39.720194 Long:-121.777704 Date Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are Vegetation Soil or Hydrology naturally problematic? Are Vegetation Soil or Hydrology naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No No Is the Sampled Area within a Wetland? Yes No No No No No No No No	No O
Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Yes No Finding Present? Yes Finding Present? Yes	No O
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No No Is the Sampled Area within a Wetland? Yes No No No No No No No No No No	
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No Is the Sampled Area within a Wetland? Yes No No No No No No No No No No	
Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Wo Within a Wetland? Yes No Wo	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important for Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Wo Within a Wetland? Yes No O	eatures, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No latter Sampled Area Wetland Hydrology Present? Yes No latter Sampled Area within a Wetland? Yes No latter Sampled Area	eatures, etc
Hydric Soil Present? Yes No No Is the Sampled Area Wetland Hydrology Present? Yes No Within a Wetland? Yes No No No No No No No No No No No No No	
Hydric Soil Present? Yes No No Is the Sampled Area Wetland Hydrology Present? Yes No Within a Wetland? Yes No No No No No No No No No No No No No	
Wetland Hydrology Present? Yes No Within a Wetland? Yes No O	
Nemara.	
VEGETATION About to Device to the first on Test work to the	
Absolute Dominant Indicator Tree Stratum (Use scientific names.) Absolute Dominant Indicator Species? Status Number of Dominant Species	
1. Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2	, ,
3. Total Number of Dominant Species Across All Strata:	4 (B)
4	(-)
Total Cover: % Percent of Dominant Species That Are OBL, FACW, or FAC: (0.0 % (A/B)
Sapling/Shrub Stratum	70 (1)
1. Prevalence Index worksheet:	m le c la con
	ply by: 0
	10
	0
Total Cover: % FAC species x 3 = FACU species 40 x 4 =	160
Herb Stratum UPL species 55 x 5 =	275
1. Erodium botrys 25 Yes FACU Column Totals: 100 (A)	445 (B)
2. Elymus caput medusae 20 Yes UPL	445 (5)
3. Festuca microstachys 20 Yes Not Listed Prevalence Index = B/A =	4.45
4. Blennosperma nanum 5 No FACW Hydrophytic Vegetation Indicators:	
5. Bromus hordeaceous 15 Yes FACU Dominance Test is >50%	
6. Layia fremontii 10 No NI Prevalence Index is ≤3.0¹	
7. Centaure solstitialis 5 No Not Listed	
8. Problematic Hydrophytic Vegetation	
Woody Vine Stratum	(=,,p.a)
1. Indicators of hydric soil and wetland h	nydrology must
2. be present.	, 0,
Total Cover: % Hydrophytic	
Vegetation	
% Bare Ground in Herb Stratum0 % Cover of Biotic Crust% Present? Yes O	
Remarks: Area is comprised of mound-swale topography on steep. rocky slope. Water is conveyed downslope via shee	
	ioff the area
photographs suggest the potential for wetlands within the area upland sample was taken, but due to rapid rur	
photographs suggest the potential for wetlands within the area upland sample was taken, but due to rapid rur does not support wetlands.	

SOIL Sampling Point: <u>U47</u>

	scription: (Describe	to the depth need				or confire	m the abs	ence of i	ndicator	s.)	
Depth (inches)	Matrix Color (moist)	% Colo	Redox or (moist)	Features %	Type ¹	Loc ²	Textu	ıre		Rema	rke
(inches)	Color (moist)		n (IIIOISI)	70	_ i ype				1. 1. 1		67
0-12	2.5 YR 2.5/3						Clay loan	<u>n</u>	cobble 1	present	
	_										
	-										
1		 								<u> </u>	
'Type: C=0 	Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand G	irains	2	Location:	PL=Pore Lir	ning, M=Matri
Hydric Soil	Indicators: (Applicabl	e to all I RRs unle	es otherwise	noted)			Indica	ators for F	Problemat	ic Hydric Soi	1e- 3
Histoso			Sandy Redox					cm Muck			10.
	Epipedon (A2)		Stripped Ma					cm Muck	, , ,	,	
Black H	Histic (A3)		Loamy Muc	-	. ,		F	Reduced \	/ertic (F1	8)	
,	gen Sulfide (A4)		Loamy Gley		(F2)			Red Parer		, ,	
	ed Layers (A5) (LRR C	:)	Depleted M	. ,				Other (Exp	olain in Re	emarks)	
	fluck (A9) (LRR D)	_ (0.4.4)	Redox Dark		. ,						
	ed Below Dark Surface Dark Surface (A12)	e (A11)	Depleted Da Redox Depi		. ,		3 India	ators of h	ydrophyti	ic vegetation	and
l 🖳	Mucky Mineral (S1)		Vernal Pool		го)					ust be prese	
	Gleyed Matrix (S4)		vernar i ooi	3 (1 3)			uı	nless disti	ibuted or	problematic	
	Layer (if present):										
Type:											
Depth (ii	nches):						Hydrid	Soil Pre	sent?	Yes 🔘	No 💿
Remarks: I	Bedrock located at 1	2 inches from to	op of mound	d, 4 inch	es outside	e of mou	ınds. Lar	ge amou	nts of la	va rock sca	ttered near
s	surface. Aerial maps	indicate potent	ial for wetla	ınds/moı	ınd-swale	e topogra	aphy, ho	wever, it	is steep	and extrem	iely rocky s
v	water runs off very r	apidly.									
HYDROLO											
	ydrology Indicators:									10	
	dicators (minimum of o	ne required; check	all that apply	y)						ors (2 or more	
Surface	e Water (A1)		Salt Crust	(B11)					`	(B1) (Riverin	,
High W	/ater Table (A2)		Biotic Crus					_		osits (B2) (R	
🖳	tion (A3)		Aquatic Inv	ertebrate/	s (B13)					(B3) (Riveri n	ıe)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen		` '				-	erns (B10)	
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized F	Rhizosphe	res along	Living Ro	ots (C3)			ater Table (C	;2)
	eposits (B3) (Nonriver	ine)	Presence		,	,			ish Burro		
=	e Soil Cracks (B6)		Recent Iro			ed Soils ((C6)				Imagery (C9
l <u>—</u>	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,				ow Aquita		
	Stained Leaves (B9)		Other (Exp	lain in Re	marks)			FAC-	Neutral T	est (D5)	
Field Obse											
		es No	Depth (inc	· —							
Water Table	e Present? You	es No	Depth (inc	ches):							
Saturation I	Present? Υα apillary fringe)	es O No •	Depth (inc	ches):		Wet	land Hyd	rology Pr	esent?	Yes (No (•)
	ecorded Data (stream	gauge, monitoring	y well, aerial p	ohotos, pr	evious ins						
	•		,		·	,					
Remarks:											

Project/Site: The Valley's Edge		City/Co	ounty:Butte		San	npling Date:	11-11-14	ł
Applicant/Owner:B. Brouhard				State:CA	Sam	npling Point	:U48	
Investigator(s): D. Machek, E. Gregg		Section	n, Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace			•	convex, none):con		SI	ope (%):3	
Subregion (LRR):C - Mediterranean California	L at:39	- 720194	,	Long:-121.7777			um:WGS	
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 per		720171	<u>. </u>	_	assification		.um. <u>** 05</u>	
		0.1/						
Are climatic / hydrologic conditions on the site typica								
Are Vegetation Soil or Hydrology	significantly			"Normal Circumstar	nces" prese	nt? Yes (No	\circ
Are Vegetation Soil or Hydrology	naturally pr	oblemat	tic? (If n	eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site	map showing	y samp	oling point l	ocations, trans	ects, im _l	oortant fo	eatures,	etc.
Harania Van de Barania Van G	N 6							
Hydrophytic Vegetation Present? Yes () Hydric Soil Present? Yes ()	No 💿							
Wetland Hydrology Present? Yes	No (Is the Sample			Ni- O		
Remarks:	110		within a Wetla	nd? Yes		No 💿		
VEGETATION								
	Absolute	Domin	nant Indicator	Dominance Test	workshee	t:		
<u>Tree Stratum</u> (Use scientific names.)	% Cover	Specie	es? Status	Number of Domir	nant Specie	S		
1				That Are OBL, FA	ACW, or FA	C:	0	(A)
2				Total Number of	Dominant			
3				Species Across A	All Strata:		4	(B)
4		_		Percent of Domir	ant Specie	s		
	al Cover: %			That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum				Prevalence Inde	v worksho	ot:		
1 2.				Total % Cove			oly by:	
3.				OBL species	51 01.	x 1 =	0	
4.				FACW species	5	x 2 =	10	
5.				FAC species	3	x 3 =	0	
	al Cover: %			FACU species	40	x 4 =	160	
Herb Stratum	, OOVOI. 70			UPL species	55	x 5 =	275	
1.Erodium botrys	25	Yes	FACU	_ Column Totals:	100	(A)	445	(B)
2. Elymus caput medusae		Yes	UPL	_ Column Totalo.	100	(7.1)	113	(-)
3. Festuca microstachys	20	Yes	Not Listed	Prevalence			4.45	
4.Blennosperma nanum	5	No	FACW	Hydrophytic Ve				
5.Bromus hordeaceous	15	Yes	FACU	Dominance 7				
6.Layia fremontii	10	No	NI	Prevalence I				
7. Centaure solstitialis	5	No	Not Listed	Morphologica		ons' (Provid on a separat		ng
8				- Problematic				1)
	al Cover: 100%			1 Toblematic	Пушорпуш	vogotatioi	T (Explain	,
Woody Vine Stratum				¹ Indicators of hyd	dric soil and	d wetland h	vdrology r	must
1		-		be present.			, a. c.og, .	
2	al Cover: %			Hydrophytic				
				Vegetation	_			
	6 Cover of Biotic	Crust	%	Present?	Yes 🔘	No (
% Bare Ground in Herb Stratum 9								
% Bare Ground in Herb Stratum 0 % 9 Remarks: Area is comprised of mound-swale photographs suggest the potential f	topography on	-		•				

SOIL Sampling Point: $\underline{U48}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes can	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	inty:Butte		San	npling Date:	11-11-14
Applicant/Owner:B. Brouhard					State:CA	San	- npling Point:	 U49
Investigator(s):D. Machek, E. Gregg	g		Section.	Township, Ra	ange:S 32, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): terra				•	convex, none):con		Slo	ope (%):3
Subregion (LRR):C - Mediterranean		Lat:39 ′	720194	onor (oorloavo,	Long:-121.7777			um:WGS 84
			720171					110. 47 O O 1
Soil Map Unit Name: Doemill-Jokers		•	2 1/	<u> </u>		lassification		
Are climatic / hydrologic conditions on							,	
Are Vegetation Soil or	Hydrology sig	gnificantly	disturbe	d? Are	"Normal Circumstar	nces" prese	nt? Yes (•	No 🔘
Are Vegetation Soil or	Hydrology na	turally pro	oblematio	c? (If n	eeded, explain any	answers in	Remarks.)	
SUMMARY OF FINDINGS - A	ttach site map sl	howing	samp	ling point l	ocations, trans	ects, im	portant fe	atures, etc
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?		•	l:	s the Sample	d Area			
Wetland Hydrology Present?		•		vithin a Wetla			No 💿	
Remarks:			ı					
VEGETATION		Absolute	Domina	ant Indicator	Dominance Tes	t workshee	et:	
Tree Stratum (Use scientific names 1				s? Status	Number of Domir That Are OBL, F	nant Specie	es	0 (A)
2. 3.					Total Number of Species Across A			4 (B)
4					Percent of Domir	nant Specie	S	
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, F	ACW, or FA	C: 0	.0 % (A/B)
1.					Prevalence Inde	x workshe	et:	
2.					Total % Cov	er of:	Multip	ly by:
3.					OBL species		x 1 =	0
4.					FACW species		x 2 =	0
5					FAC species		x 3 =	0
	Total Cover:	%			FACU species	40	x 4 =	160
Herb Stratum			• •		UPL species	60	x 5 =	300
1. Erodium botrys		25	Yes	FACU	Column Totals:	100	(A)	460 (B
2. Elymus caput medusae		20	Yes	UPL	Prevalence	Index - B	/Δ —	4.60
3. Festuca microstachys 4. Centaure solstitialis		20	Yes	Not Listed	Hydrophytic Ve			4.00
5.Bromus hordeaceous	·	10	No Yes	Not Listed FACU	Dominance	_		
6.Layia fremontii	·	10	$\frac{1es}{No}$	NI	Prevalence I			
7.		10	140		Morphologic			e supporting
8.				<u> </u>			on a separate	
·	Total Cover:	100%			- Problematic	Hydrophytic	c Vegetation	¹ (Explain)
Woody Vine Stratum	10101 00101.	100%			1			
1					Indicators of hyden be present.	dric soil an	d wetland h	ydrology must
2					_			
	Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum	0 % % Cover	of Biotic C	Crust	%	Present?	Yes 🔘	No (•
Remarks: Area is comprised of n	 nound-swale topogra	aphy on	steep. re	ocky slope. V	Vater is conveyed	downslor	e via shee	t flow. Aeria
photographs suggest th			-		•			
does not support wetla	•			-				

SOIL Sampling Point: $\underline{U49}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes can	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	unty:Butte		S	Sampling Dat	te: <u>11-11-1</u> 4	4
Applicant/Owner: B. Brouhard					State:CA	S	Sampling Poi	nt:U50	
Investigator(s):D. Machek, E. Gregg			Section	, Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local re	elief (concave,	convex, none):con	vex		Slope (%):3	,
Subregion (LRR):C - Mediterranean C	 California	Lat:39.7	720194		Long:-121.7777	04		atum:WGS	84
Soil Map Unit Name: Doemill-Jokerst							ion:Upland		
Are climatic / hydrologic conditions on the	-	-	ar? Yes	s (•) No (
		gnificantly			"Normal Circumstar		,	No	
,		turally pro		,	eeded, explain any			,	
SUMMARY OF FINDINGS - Att	ach site map sl	howing	samp	ling point l	ocations, trans	ects, i	mportant	features	, etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•		s the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		within a Wetla			No 💿		
Remarks:									
VEGETATION									
Table Charles (I lead as in this and a second		Absolute		ant Indicator	Dominance Test	t worksh	ieet:		
<u>Tree Stratum</u> (Use scientific names.)		% Cover	Specie	s? Status	Number of Domir			0	(
1 2.	·		-		That Are OBL, F	ACVV, or	FAC:	0	(A)
3.					Total Number of			4	(D)
4.					Species Across A	Ali Strata	:	4	(B)
	Total Cover:	%			Percent of Domir			0.0	(A /D)
Sapling/Shrub Stratum	Total Cover.	70			That Are OBL, F	ACVV, OI	FAC:	0.0 %	(A/B)
1					Prevalence Inde	x works	heet:		
2					Total % Cov	er of:	Mu	Itiply by:	_
3					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5					FACIL analisa	4.5	x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	45		180	
1.Erodium botrys		30	Yes	FACU		55		275 455	(B)
2.Elymus caput medusae		20	Yes	UPL	Column Totals:	100) (A)	433	(6)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	Index =	B/A =	4.55	
4. Centaure solstitialis		5	No	Not Listed	Hydrophytic Ve	getation	Indicators:		
5.Bromus hordeaceous		15	Yes	FACU	Dominance ⁻				
6.Layia fremontii		10	No	NI	Prevalence I				
7					Morphologica		ations' (Prov or on a separ		ing
8					- Problematic				1)
Woody Vine Stratum	Total Cover:	100%				,	y v ogotat.	0 (<u>=</u> ,tp.a	.,
1.					¹ Indicators of hyd	dric soil	and wetland	hydrology	must
2.					be present.			, 0,	
- -	Total Cover:	%			Hydrophytic				
Of Bone Oracondia Hart Office			2		Vegetation		O		
	% Cover 0			<u>%</u>	Present?	Yes		• •	
Remarks: Area is comprised of mo									
photographs suggest the does not support wetland	*	anus WIU	iiiii the a	area upiana s	ampie was taken,	out aue	to rapid ri	anon the a	169
does not support wettand	••								

SOIL Sampling Point: $\underline{U50}$

	scription: (Describe	to the depth need				or confire	m the abs	ence of i	ndicator	s.)	
Depth (inches)	Matrix Color (moist)	% Colo	Redox or (moist)	Features %	Type ¹	Loc ²	Textu	ıre		Rema	rke
(inches)	Color (moist)		n (IIIOISI)	70	_ i ype				1. 1. 1		67
0-12	2.5 YR 2.5/3						Clay loan	<u>n</u>	cobble 1	present	
	_										
	-										
1		 								<u> </u>	
'Type: C=0 	Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand G	irains	2	Location:	PL=Pore Lir	ning, M=Matri
Hydric Soil	Indicators: (Applicabl	e to all I RRs unle	es otherwise	noted)			Indica	ators for F	Problemat	ic Hydric Soi	1e- 3
Histoso			Sandy Redox					cm Muck			10.
	Epipedon (A2)		Stripped Ma					cm Muck	, , ,	,	
Black H	Histic (A3)		Loamy Muc	-	. ,		F	Reduced \	/ertic (F1	8)	
,	gen Sulfide (A4)		Loamy Gley		(F2)			Red Parer		, ,	
	ed Layers (A5) (LRR C	:)	Depleted M	. ,				Other (Exp	olain in Re	emarks)	
	fluck (A9) (LRR D)	_ (0.4.4)	Redox Dark		. ,						
	ed Below Dark Surface Dark Surface (A12)	e (A11)	Depleted Da Redox Depi		. ,		3 Indic	ators of h	ydrophyti	ic vegetation	and
l 🖳	Mucky Mineral (S1)		Vernal Pool		го)					ust be prese	
	Gleyed Matrix (S4)		vernar i ooi	3 (1 3)			uı	nless disti	ibuted or	problematic	
	Layer (if present):										
Type:											
Depth (ii	nches):						Hydrid	Soil Pre	sent?	Yes 🔘	No 💿
Remarks: I	Bedrock located at 1	2 inches from to	op of mound	d, 4 inch	es outside	e of mou	ınds. Lar	ge amou	nts of la	va rock sca	ttered near
s	surface. Aerial maps	indicate potent	ial for wetla	ınds/moı	ınd-swale	e topogra	aphy, ho	wever, it	is steep	and extrem	iely rocky s
v	water runs off very r	apidly.									
HYDROLO											
	ydrology Indicators:									10	
	dicators (minimum of o	ne required; check	all that apply	y)						ors (2 or more	
Surface	e Water (A1)		Salt Crust	(B11)					`	(B1) (Riverin	,
High W	/ater Table (A2)		Biotic Crus					_		osits (B2) (R	
🖳	tion (A3)		Aquatic Inv	ertebrate/	s (B13)					(B3) (Riveri n	ıe)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen		` '				-	erns (B10)	
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized F	Rhizosphe	res along	Living Ro	ots (C3)			ater Table (C	;2)
	eposits (B3) (Nonriver	ine)	Presence		,	,			ish Burro		
=	e Soil Cracks (B6)		Recent Iro			ed Soils ((C6)				Imagery (C9
l <u>—</u>	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,				ow Aquita		
	Stained Leaves (B9)		Other (Exp	lain in Re	marks)			FAC-	Neutral T	est (D5)	
Field Obse											
		es No	Depth (inc	· —							
Water Table	e Present? You	es No	Depth (inc	ches):							
Saturation I	Present? Υα apillary fringe)	es O No •	Depth (inc	ches):		Wet	land Hyd	rology Pr	esent?	Yes (No (•)
	ecorded Data (stream	gauge, monitoring	y well, aerial p	ohotos, pr	evious ins						
	•		,		·	,					
Remarks:											

Landform (hillslope, terrace, etc.): terrace Subregion (LRR):C - Mediterranean California Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of yea Are Vegetation Soil or Hydrology significantly of Are Vegetation Soil or Hydrology naturally prob SUMMARY OF FINDINGS - Attach site map showing standard to the Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydrophytic Soil Present? Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Present? Yes No Absolute	ar? Yes • disturbed? sampling p	Sampled Area a Wetland? Yes No dicator Dominance Test worksheet:
Landform (hillslope, terrace, etc.): terrace Subregion (LRR):C - Mediterranean California Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation Soil or Hydrology significantly or Are Vegetation Soil or Hydrology naturally probable of the Summary of the Vegetation Present? Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Yes No Remarks: WEGETATION Tree Stratum (Use scientific names.) Absolute % Cover 1. 2. 3. 4. Sapling/Shrub Stratum	Local relief (co 20194 ar? Yes disturbed? blematic? sampling p Is the S within a	Concave, convex, none): convex Long:-121.777704 NWI classification: Upland No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) point locations, transects, important features, of the status of Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Subregion (LRR):C - Mediterranean California Lat:39.72 Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation Soil or Hydrology significantly or Are Vegetation Soil or Hydrology naturally prob SUMMARY OF FINDINGS - Attach site map showing s Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover 1. 2. 3. 4. Sapling/Shrub Stratum	20194 ar? Yes disturbed? blematic? sampling p Is the S within a	NWI classification: Upland No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) point locations, transects, important features, of the status of Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (Are the status) Dominant Species Across All Strata: 4 (Each of the status)
Subregion (LRR):C - Mediterranean California Lat:39.72 Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation Soil or Hydrology significantly or Are Vegetation Soil or Hydrology naturally prob SUMMARY OF FINDINGS - Attach site map showing s Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover 1. 2. 3. 4. Sapling/Shrub Stratum	20194 ar? Yes disturbed? blematic? sampling p Is the S within a	NWI classification: Upland No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) point locations, transects, important features, of the status of Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (Are the status) Dominant Species Across All Strata: 4 (Each of the status)
Soil Map Unit Name: Doemill-Jokerst , 3 to 8 percent slopes Are climatic / hydrologic conditions on the site typical for this time of year Are Vegetation Soil or Hydrology naturally probable BUMMARY OF FINDINGS - Attach site map showing states and showing states are least and showing states. Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover 1. 2. 3. 4. Sapling/Shrub Stratum	ar? Yes (•) disturbed? blematic? sampling p Is the S within a	NWI classification: Upland No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) point locations, transects, important features, of Sampled Area a Wetland? Yes No Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 4 (E)
Are climatic / hydrologic conditions on the site typical for this time of year are Vegetation Soil or Hydrology significantly of the Vegetation Soil or Hydrology naturally probable. SUMMARY OF FINDINGS - Attach site map showing substituting the Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks: Wetland Hydrology Present? Yes No Mo Metland Hydrology Present? Yes No Metland Hydrology Pre	disturbed? blematic? sampling p Is the S within a	No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (If needed, explain any answers in Remarks.) point locations, transects, important features, of the second status of the
Are Vegetation Soil or Hydrology naturally probate Vegetation Soil or Hydrology naturally probate SUMMARY OF FINDINGS - Attach site map showing summary of Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Femarks: Vegetation Present? Yes No Femarks: No F	disturbed? blematic? sampling p Is the S within a	Are "Normal Circumstances" present? Yes No ((If needed, explain any answers in Remarks.) point locations, transects, important features, of the status of
Are Vegetation Soil or Hydrology naturally prob SUMMARY OF FINDINGS - Attach site map showing s Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: VEGETATION Tree Stratum (Use scientific names.) Absolute % Cover 1. 2. 3. 4. Sapling/Shrub Stratum	sampling p Is the S within a	(If needed, explain any answers in Remarks.) point locations, transects, important features, of the second status
Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION Tree Stratum (Use scientific names.) 1. 2. 3. 4. Sapling/Shrub Stratum	Is the S within a	Sampled Area a Wetland? Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION Tree Stratum (Use scientific names.) 1. 2. 3. 4. Sapling/Shrub Stratum Yes No No No No No No No No No No No No No	Is the S within a	Sampled Area a Wetland? Yes No No Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Hydric Soil Present? Wetland Hydrology Present? Yes No No No Remarks: **Present No No No No No No No No No No No No No	within a	dicator Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Hydric Soil Present? Wetland Hydrology Present? Remarks: VEGETATION Tree Stratum (Use scientific names.) 1. 2. 3. 4. Sapling/Shrub Stratum Yes No No No No No No No No No No No No No	within a	dicator Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Wetland Hydrology Present? Remarks: /EGETATION Tree Stratum (Use scientific names.) 1.	within a	dicator Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Remarks: VEGETATION Tree Stratum (Use scientific names.) 1. 2. 3. 4. Sapling/Shrub Stratum Total Cover: %	Dominant Indi	dicator Status Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
VEGETATION Tree Stratum (Use scientific names.) 1. 2. 3. 4. Sapling/Shrub Stratum Absolute % Cover % Cover % Total Cover: %		Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Tree Stratum (Use scientific names.) 1. 2. 3. 4. Total Cover: % Sapling/Shrub Stratum		Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
Tree Stratum (Use scientific names.) % Cover 1.		Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 4 (E
3		Species Across All Strata: 4 (E
4		Species Across All Strata: 4 (E
Sapling/Shrub Stratum Total Cover: %		Percent of Dominant Species
Sapling/Shrub Stratum		Fercent of Dominant Species
		That Are OBL, FACW, or FAC: 0.0 % (A
1		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species $x = 0$
4.		FACW species x 2 = 0
5.		FAC species x 3 = 0
Total Cover: %		FACU species 45 x 4 = 180
Herb Stratum		UPL species $55 \times 5 = 275$
1. Erodium botrys 30	Yes FACU	
2. Elymus caput medusae 20	Yes UPL	L
· · · · · · · · · · · · · · · · · · ·		Prevalence Index = B/A = 4.55
		Listed Hydrophytic Vegetation Indicators:
	Yes FACU	
6.Layia fremontii 10 1	No NI	Prevalence Index is ≤3.0¹
7		Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8.		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum Total Cover: 100 %		
1.		¹ Indicators of hydric soil and wetland hydrology m
2.		be present.
Total Cover: %		Hydrophytic
	much 0/	Vegetation Present? Yes No •
% Bare Ground in Herb Stratum % Cover of Biotic Cr Remarks: Area is comprised of mound-swale topography on st		_

SOIL Sampling Point: $\underline{\text{U51}}$

Profile Des	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirm	n the absen	ce of indicators.)
Depth	Matrix	0/ 0-		x Features		1002	Tartur	Domorko
(inches)	Color (moist)		lor (moist)	%	_Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	-							
1								21 21 21 21 21 21 21 21 21 21 21 21 21 2
'Type: C=0 	Concentration, D=Depl	etion, RM=Redu	iced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all I RRs un	less otherwise	e noted)			Indicator	rs for Problematic Hydric Soils: 3
Histoso			Sandy Redo					n Muck (A9) (LRR C)
	Epipedon (A2)		Stripped M				2 cn	n Muck (A10) (LRR B)
	Histic (A3)		Loamy Mud	-	. ,			luced Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			Parent Material (TF2)
	ed Layers (A5) (LRR C	[Depleted M	. ,	(FO)		Othe	er (Explain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	\(\(\Lambda\)	Redox Darl Depleted D		. ,			
	ed Below Dark Surface Dark Surface (A12)	(A11)	Redox Dep		. ,		3 Indicato	ors of hydrophytic vegetation and
	Mucky Mineral (S1)	_	Vernal Poo		. 0)		wetla	and hydrology must be present.
	Gleyed Matrix (S4)			()			unles	ss distributed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	nches):						Hydric S	oil Present? Yes ○ No ●
I .							_	amounts of lava rock scattered near
			ntial for wetl	ands/mou	und-swale	e topogra	aphy, howe	ver, it is steep and extremely rocky so
V	vater runs off very r	apidly.						
HYDROLO	nev							
	ydrology Indicators:							
	licators (minimum of or	ne required: che	ck all that ann	lv)			Sec	condary Indicators (2 or more required)
	e Water (A1)		Salt Crust	-			— <u> </u>	Water Marks (B1) (Riverine)
	/ater Table (A2)	l [Biotic Crust					Sediment Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)	l [Aguatic In		s (B13)			Drift Deposits (B3) (Riverine)
🗀	Marks (B1) (Nonriveri	ne)	Hydrogen		, ,			Drainage Patterns (B10)
l 🛏	ent Deposits (B2) (Nor	,	=		res along	Living Ro	ots (C3)	Dry-Season Water Table (C2)
	eposits (B3) (Nonriver	, ,			ed Iron (C4	-		Crayfish Burrows (C8)
l <u>=</u>	e Soil Cracks (B6)	o, [on in Plow	,	C6)	Saturation Visible on Aerial Imagery (C9)
==	tion Visible on Aerial Ir	ا nagerv (B7)	Thin Muck			(, , , , , , , , , , , , , , , , , , ,	Shallow Aquitard (D3)
l <u>—</u>	Stained Leaves (B9)	[Other (Ex	`	,			FAC-Neutral Test (D5)
Field Obse	ervations:				· · · · · ·			
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation		es O No 💽	Depth (in	ches):		Moti	land Usedvale	ogy Present? Yes No
	apillary fringe) ecorded Data (stream	gauge monitori	ng well aerial	nhotos pr	evious ins			ogy Present? Yes (No ()
Describe it	coorded Data (Stream	gaago, momon	ig well, aerial	priotos, pr	CVIOUS IIIS	pcotions),	ii availabio.	
Remarks:								

Project/Site: The Valley's Edge			City/Cot	unty:Butte		San	npling Date:	11-11-14	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:	U52	
Investigator(s): D. Machek, E. Gregg			Section	, Township, Ra	ange:S 32, T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terra	ce		Local re	elief (concave,	convex, none):con	vex	Slo	ope (%):3	
Subregion (LRR):C - Mediterranean (Lat:39.7	720194	,	Long:-121.7777			um:WGS 8	 84
Soil Map Unit Name: Doemill-Jokerst					_	assification			
	-	-	20 Vac	No.					
Are climatic / hydrologic conditions on the							,		
		gnificantly			"Normal Circumstar			No (
Are Vegetation Soil or H	lydrology na	iturally pro	oblemation	c? (If n	eeded, explain any	answers in	Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map sl	howing	samp	ling point l	ocations, trans	ects, im _l	portant fe	atures, e	etc.
Lindranhutia Vagatatian Propent?	Yes No	•							
Hydrophytic Vegetation Present? Hydric Soil Present?		•		s the Sample	d Araa				
Wetland Hydrology Present?		•		s the Sample vithin a Wetla			No 💿		
Remarks:	100		V	vitiiii a vvetia	iid: Tes		NO (S		-
VEGETATION									
Tree Stratum (Use scientific names.		Absolute		ant Indicator s? Status	Dominance Tes				
1.		70 COVEL	<u>Specie</u>	s: Status	Number of Domir That Are OBL, FA			0 (A	۸)
2.			-		- Illat Ale OBL, 17	\CVV, 01 1 A	Ю.) (/-	٦)
3.					 Total Number of Species Across A 			4 (E	3)
4.					-			+ (L	رد
	Total Cover:	%			 Percent of Domir That Are OBL, FA 			.0 % (A	\/B)
Sapling/Shrub Stratum	. 514. 55151.	,0						.0 % (A	(10)
1					Prevalence Inde				
2					Total % Cov	er of:	Multip		
3					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5					FAC species FACU species	25	x 3 =	0	
Herb Stratum	Total Cover:	%			UPL species	35	x 4 = x 5 =	140 325	
1.Erodium botrys		20	Yes	FACU	Column Totals:	65		465	(B)
2.Elymus caput medusae		30	Yes	UPL	_ Column Totals.	100	(A)	403	(D)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	Index = B/	'A =	4.65	
4. Centaure solstitialis		5	No	Not Listed	Hydrophytic Ve	getation In	dicators:		
5.Bromus hordeaceous		15	Yes	FACU	Dominance ⁻	Γest is >50°	%		
6.Layia fremontii		10	No	NI	Prevalence I				
7					Morphologica		ons¹ (Provide on a separate		Э
8					- Problematic		•	. '	
Woody Vina Stratum	Total Cover:	100%			i robiematie	Пуспортуш	o vogotation	(Explair)	
Woody Vine Stratum 1.					¹ Indicators of hyd	dric soil and	d wetland h	vdrology m	ust
2.					be present.			,	
	Total Cover:	%			Hydrophytic				
					Vegetation				
	0 % % Cover 0			<u>%</u>	Present?	Yes 🔘	No (
Remarks: Area is comprised of m			-		•				
photographs suggest the does not support wetlan	*	ands wit	nin the a	area upland s	sampie was taken,	but due to	o rapid run	off the are	a
does not support wettan	us.								

SOIL Sampling Point: $\underline{\text{U52}}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	cobble present
	_							
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3
Histose			Sandy Redo					luck (A9) (LRR C)
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)
	Histic (A3)		Loamy Muc					ed Vertic (F18)
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '			
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless o	distributed or problematic
	Layer (if present):							
Type:	, (
Depth (i	nches):						Hydric Soil	Present? Yes No No
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near
								r, it is steep and extremely rocky so
	water runs off very r					1 6	T 37	,
		1 7						
HYDROL								
	ydrology Indicators:							
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	′	=	rayfish Burrows (C8)
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)
Field Obse								
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation (includes can	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Cou	unty:Butte		S	ampling Dat	e: <u>11-11-14</u>	
Applicant/Owner:B. Brouhard					State:CA	S	ampling Poir	nt:U53	
Investigator(s): D. Machek, E. Gregg			Section	, Township, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local re	elief (concave,	convex, none):con	vex	:	Slope (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	720194		Long:-121.7777	04	D	atum:WGS 8	34
Soil Map Unit Name: Doemill-Jokerst,							ion:Upland		
Are climatic / hydrologic conditions on the	*	-	ar? Yes	s (•) No (
		gnificantly			"Normal Circumstar		,	No (
						•			
, ,		turally pro		,	eeded, explain any		•	,	
SUMMARY OF FINDINGS - Att	ach site map sl	howing	samp	ling point l	ocations, trans	ects, ii	mportant	features, e	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•		s the Sample	d Area				
Wetland Hydrology Present?	_	•		within a Wetla			No 💿		
Remarks:							- 110		
VEGETATION									
T 0: 11 : 11 : 11		Absolute		ant Indicator	Dominance Tes	t worksh	eet:		
Tree Stratum (Use scientific names.)	<u>-</u>	% Cover	Specie	s? Status	Number of Domin			0 (4	
1					That Are OBL, F	ACVV, or	FAC:	0 (A	١)
2. 3.					Total Number of			4 (5	2,
[] 					_ Species Across A	All Strata:		4 (B	3)
4	Total Cover:	0/			Percent of Domir			0.0	(5)
Sapling/Shrub Stratum	Total Cover.	%			That Are OBL, F	ACVV, or	FAC:	0.0 % (A	√B)
1					Prevalence Inde	x works	heet:		
2					Total % Cov	er of:	<u>Mul</u>	Itiply by:	
3					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5					FAC species FACU species	40	x 3 =	0	
Herb Stratum	Total Cover:	%			UPL species	40	_	160	
1.Erodium botrys		20	Yes	FACU		60		300 460	(B)
2.Elymus caput medusae		25	Yes	UPL	_ Column Totals:	100) (A)	400	(D)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	Index =	B/A =	4.60	
4. Centaure solstitialis		5	No	Not Listed	Hydrophytic Ve	getation	Indicators:		
5.Bromus hordeaceous		20	Yes	FACU	Dominance ⁻				
6.Layia fremontii		10	No	NI	Prevalence I				
7							ations¹ (Provi or on a separ	ide supporting	3
8					l		•	on ¹ (Explain)	
Woody Vine Stratum	Total Cover:	100%			rrosiomato	. iyalopii	y no vogotan	on (Explain)	
1.					¹ Indicators of hydronic	dric soil a	and wetland	hydrology mi	ust
2.					be present.			,	
	Total Cover:	%			Hydrophytic				
					Vegetation	4	<u> </u>		
	% Cover			<u>%</u>	Present?	Yes		• •	
Remarks: Area is comprised of mor									
photographs suggest the does not support wetland	•	ands wit	nin the	area upland s	sampie was taken,	out due	to rapid ru	inoff the are	a
does not support wedand									

SOIL Sampling Point: $\underline{\text{U53}}$

Profile Des	scription: (Describe t	to the depth nee	ded to docui	nent the i	ndicator	or confirm	n the absence	of indicators.)			
Depth	Matrix			x Features							
(inches)	Color (moist)	% Col	or (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-12	2.5 YR 2.5/3						Clay loam	cobble present			
	_										
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	noted.)			Indicators for	or Problematic Hydric Soils: 3			
Histose			Sandy Redo					luck (A9) (LRR C)			
	Epipedon (A2)		Stripped Ma					luck (A10) (LRR B)			
	Histic (A3)		Loamy Muc					ed Vertic (F18)			
	gen Sulfide (A4)		Loamy Gley		(F2)			arent Material (TF2)			
	ed Layers (A5) (LRR C)	Depleted M				Other (Explain in Remarks)			
	Muck (A9) (LRR D)	(4.44)	Redox Dark		` '						
· — ·	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators	of hydrophytic vegetation and			
	Dark Surface (A12) Mucky Mineral (S1)		Redox Dep Vernal Poo		го)			hydrology must be present.			
	Gleyed Matrix (S4)		_ vemai i oo	3 (1 3)			unless distributed or problematic				
	Layer (if present):										
Type:	, (
Depth (i	nches):						Hydric Soil	Present? Yes No No			
		2 inches from t	on of moun	d. 4 inch	es outside	e of mou		nounts of lava rock scattered near			
								r, it is steep and extremely rocky so			
	water runs off very r					1 6	T 37	,			
		1 7									
HYDROL											
	ydrology Indicators:										
	dicators (minimum of or	ne required; chec		-				dary Indicators (2 or more required)			
Surfac	e Water (A1)	Ĺ	Salt Crust	` '				Vater Marks (B1) (Riverine)			
l 🖳 🧻	Vater Table (A2)	Ĺ	Biotic Crus					ediment Deposits (B2) (Riverine)			
l 🖳	tion (A3)	Ĺ	Aquatic In					rift Deposits (B3) (Riverine)			
==	Marks (B1) (Nonriveri		Hydrogen		` '		= =	rainage Patterns (B10)			
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	ry-Season Water Table (C2)			
l <u>—</u>	eposits (B3) (Nonriver	rine)	Presence		`	′	=	rayfish Burrows (C8)			
=	e Soil Cracks (B6)	(2-)	Recent Iro			ed Soils (aturation Visible on Aerial Imagery (C9)			
	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			hallow Aquitard (D3)			
	Stained Leaves (B9)	L	Other (Exp	plain in Re	marks)		F/	AC-Neutral Test (D5)			
Field Obse											
		es No 💿	Depth (in	· · · · · · · · · · · · · · · · · · ·							
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):							
Saturation (includes can	Present? Ye apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology	Present? Yes O No •			
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:				
Remarks:											

Sampli R 2E ex 4 ssification:Uj n in Remarks. ces" present? nswers in Re	Datum pland .) ? Yes • emarks.)	64 e (%):4.5 e:WGS 84
ex 4 ssification:U in Remarks. ces" present? nswers in Re	Datum pland .) ? Yes • emarks.)	:WGS 84
ssification:Uj n in Remarks. ces" present?	Datum pland .) ? Yes • emarks.)	:WGS 84
ssification:Uj n in Remarks. ces" present?	Datum pland .) ? Yes • emarks.)	:WGS 84
ssification: <u>U</u> n in Remarks. ces" present?	pland .) ? Yes • emarks.)	
n in Remarks. ces" present?	.) ? Yes •	No (
ces" present?	Yes •	No 🔿
nswers in Re	emarks.)	No (
	,	
ects, impo	rtant feat	
	rtant rout	ures, e
○ No	•	
O No	3 (
worksheet:		
ant Species CW, or FAC:	0	(A)
	O .	(, ,
ominant I Strata:	4	(B)
	7	(2)
ant Species CW, or FAC:	0.0	% (A/I
		70 (7 0
worksheet:		
r of:	Multiply I	0
	x 1 = x 2 =	0
	x 2 = x 3 =	0
	x 4 =	200
30	x 5 =	200
10	(A)	400
90 (,^)	400
ndex = B/A =	=	4.44
etation Indic	ators:	
est is >50%		
dex is ≤3.0¹		
dex is ≤3.0 ¹ Adaptations		,
dex is ≤3.0 ¹ Adaptations marks or on a	egetation (i	_xpiairi)
dex is ≤3.0 ¹ Adaptations		oloav mu
dex is ≤3.0¹ Adaptations marks or on a lydrophytic V	vetland hvdr	
dex is ≤3.0¹ Adaptations marks or on a lydrophytic V	vetland hydr	
dex is ≤3.0¹ Adaptations marks or on a lydrophytic V	vetland hydr	
dex is ≤3.0¹ Adaptations marks or on a lydrophytic V		
dex is ≤3.0¹ Adaptations marks or on a lydrophytic Veric soil and were recorded.	No •	
dex is ≤3.0¹ Adaptations marks or on a lydrophytic Veric soil and we will the soil and the soil and we will the soil and th	No (•)	
dex is ≤3.0¹ Adaptations marks or on a lydrophytic Veric soil and were recorded.	No (•)	
lno al er H	dric soil and w	

SOIL Sampling Point: $\underline{\text{U54}}$

		to the depth need				or confire	m the abs	ence of i	ndicator	s.)	
Depth (inches)	Matrix Color (moist)	% Colo				1002	Toyt	ıre		Domo	rke
			n (IIIOISI)	70	_ i ype				1. 1. 1		67
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks O-12 2.5 YR 2.5/3 100 Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Clay loam cobble present Clay loam cobble present Clay loam cobble present Indicators: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Indicators: (Applicable to All LRRs) Loamy Mucky Mineral (F1) Redox Dark Surface (A2) Depleted Matrix (F2) Redox Parent Material (TF2) Other (Explain in Remarks) Tom Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Vernal Pools (F9) Type: Type: Type: Depth (inches): Hydric Soil Present? Yes No ©											
	_										
	-										
1		 								<u> </u>	
'Type: C=0 	Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand G	irains	2	Location:	PL=Pore Lir	ıng, M=Matrı
Hydric Soil	Indicators: (Annlicabl	e to all I RRs unle	es otherwise	noted)			Indica	ators for F	Problemat	ic Hydric Soi	1e- 3
											10.
	, ,		-						, , ,	,	
Black H	Histic (A3)		•	-	. ,		F	Reduced \	/ertic (F1	8)	
,	, ,				(F2)					, ,	
		:)	•	. ,				Other (Exp	olain in Re	emarks)	
	, , , ,	_ (0.4.4)			. ,						
		e (A11)			. ,		3 India	ators of h	ydrophyti	ic vegetation	and
l 🖳	, ,				го)					-	
			vernar i ooi	3 (1 3)			uı	nless disti	ibuted or	problematic	
Type:											
Depth (ii	nches):						Hydrid	Soil Pre	sent?	Yes 🔘	No 💿
Remarks: I	Bedrock located at 1	2 inches from to	op of mound	d, 4 inch	es outside	e of mou	ınds. Lar	ge amou	nts of la	va rock sca	ttered near
s	surface. Aerial maps	indicate potent	ial for wetla	ınds/moı	ınd-swale	e topogra	aphy, ho	wever, it	is steep	and extrem	iely rocky s
v	water runs off very r	apidly.									
HYDROLO											
	ydrology Indicators:									10	
	dicators (minimum of o	ne required; check	all that apply	y)						ors (2 or more	
Surface	e Water (A1)		Salt Crust	(B11)					`	(B1) (Riverin	,
High W	/ater Table (A2)		Biotic Crus					_		osits (B2) (R	
🖳	tion (A3)		Aquatic Inv	ertebrate/	s (B13)					(B3) (Riveri n	ıe)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen		` '				-	erns (B10)	
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized F	Rhizosphe	res along	Living Ro	ots (C3)			ater Table (C	;2)
	eposits (B3) (Nonriver	ine)	Presence		,	,			ish Burro		
=	e Soil Cracks (B6)		Recent Iro			ed Soils ((C6)				Imagery (C9
l <u>—</u>	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,				ow Aquita		
	Stained Leaves (B9)		Other (Exp	lain in Re	marks)			FAC-	Neutral T	est (D5)	
Field Obse											
		es No	Depth (inc	· —							
Water Table	e Present? You	es No	Depth (inc	ches):							
Saturation I	Present? Υα apillary fringe)	es O No •	Depth (inc	ches):		Wet	land Hyd	rology Pr	esent?	Yes (No (•)
	ecorded Data (stream	gauge, monitoring	y well, aerial p	ohotos, pr	evious ins						
	•		,		·	,					
Remarks:											

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1-11-14	
Applicant/Owner: B. Brouhard					State:CA	Sam	Sampling Point:U55		
Investigator(s):D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	:е		Local relie	ef (concave,	convex, none):conv	ex	Slo	pe (%): <u>4</u>	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	721003		Long:-121.77340	00	Datum:WGS 84		
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	 ks.)		
Are Vegetation Soil or Hy	ydrology sig	gnificantly	disturbed?	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (\circ
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map s	howing	samplir	ng point l	ocations, transe	ects, imp	oortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	ls t	he Sample	d Area				
Wetland Hydrology Present?	Yes No	•		hin a Wetla		\bigcirc	No 💿		
Remarks:			<u>'</u>						
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test				
1.	_	70 00701	_орооюэ.	<u> Otatas</u>	Number of Domin That Are OBL, FA) ((A)
2.					_			`	,
3.					 Total Number of D Species Across A 		2		(B)
4.					- Percent of Domina		_		()
	Total Cover:	%			That Are OBL, FA			0 % ((A/B)
Sapling/Shrub Stratum					Prevalence Index	worksho	ot:		
1. 2.					Total % Cove		et. Multipl	v hv	
3.					OBL species	1 01.	x 1 =	0	
4.			-		FACW species		x 2 =	0	
5.				-	FAC species		x 3 =	0	
	Total Cover:	%			FACU species	15	x 4 =	60	
Herb Stratum					UPL species	85	x 5 =	425	
1.Agoseris heterophylla		10	No	Not Listed	Column Totals:	100	(A)	485	(B)
2.Elymus caput medusae		40	Yes	UPL	Prevalence	Indox - B/	^ _	4.85	
3. Festuca microstachys		25	Yes	Not Listed	Hydrophytic Veg			4.83	
4 Dodecatheon clevelandii ssp. pa	<u>tulum</u>	10	No	Not Listed	Dominance T				
5.Erodium botrys		15	No	FACU	Prevalence Ir				
6. 	·				Morphologica			supportir	na
8.					data in Re	marks or o	n a separate	sheet)	
	Total Cover:	100%			Problematic F	Hydrophytic	CVegetation ¹	(Explain))
Woody Vine Stratum		100%							
1 2.				-	¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology n	nust
2	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum(% Cover 0	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 🖲	•)	
Remarks:									

SOIL Sampling Point: $\underline{\text{U55}}$

Profile Des	scription: (Describe t	to the depth nee				or confirn	n the absence of inc	dicators.)
Depth (inches)	Matrix	% Col		x Features	Type ¹	Loc ²	Toyturo	Domorko
(inches)	Color (moist)		or (moist)	%	_ rype ·	LOC_	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
	-							
1 _T 0. (Latina DM Dadu	and Matrice Of				21	ocation: PL=Pore Lining, M=Matrix.
Type: C=0	Concentration, D=Depl	letion, RIVI=Reduc	ced Matrix. C	S=Covered	d or Coate	a Sana Gi	rains LC	cation. PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwise	noted.)			Indicators for Pro	oblematic Hydric Soils: 3
Histoso		,	Sandy Redo	-				A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,			2 cm Muck (A10) (LRR B)
📖	Histic (A3)		Loamy Mud	-	, ,		Reduced Ve	
	gen Sulfide (A4)	<u> </u>	Loamy Gle		(F2)			Material (TF2)
	ed Layers (A5) (LRR C	·)	Depleted M Redox Dark	, ,	(E6)		Uther (Expla	ain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(A11)	Depleted D		. ,			
	Dark Surface (A12)	(/(1/)	Redox Dep		. ,			drophytic vegetation and
l <u> </u>	Mucky Mineral (S1)		Vernal Poo	•	- /			ology must be present.
	Gleyed Matrix (S4)		J	, ,			unless distrib	outed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	·						Hydric Soil Pres	ent? Yes No 💿
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface.	
HYDROL	OGY							
	ydrology Indicators:							
	licators (minimum of o	ne required: chec	k all that app	v)			Secondary	Indicators (2 or more required)
	e Water (A1)	Γ	Salt Crust					Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Cru				Sedime	ent Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)		Aguatic In		s (B13)			eposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri	ne)	Hydrogen		,		Draina	ge Patterns (B10)
l 🗀	ent Deposits (B2) (Nor	· · ·	Oxidized I		` '	Living Roo	=	ason Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	, <u>_</u>	Presence		_	_	· · · · —	h Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	Ĺ	Recent Iro	n Reducti	on in Plow	, ed Soils (ion Visible on Aerial Imagery (C9)
=	tion Visible on Aerial In	magery (B7)	Thin Muck	Surface (C7)		Shallov	v Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in Re	marks)			eutral Test (D5)
Field Obse	ervations:	_	<u> </u>					
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):		Wetl	and Hydrology Pre	sent? Yes O No •
	apillary fringe) ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			Sent: 1es C NO C
	(3.3.3.4	33	9 . ,	, , ,		,		
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1-11-14	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J 5 6	
Investigator(s): D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local relie	ef (concave,	convex, none):conv	vex	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	721003		Long:-121.77340	00	Datu	m:WGS 84	4
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	ne site typical for this	time of ye	ear? Yes (• No((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or H	lydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No 🔘)
Are Vegetation Soil or H	lydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in l	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplir	ng point l	ocations, transe	ects, imp	oortant fea	atures, e	tc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		ls t	he Sample	d Area				
Wetland Hydrology Present?	Yes No	•		hin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
VEGETATION		bsolute	Dominant	Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1				_	That Are OBL, FA			(A)	1
2					Total Number of D	Oominant			
3					Species Across A	II Strata:	3	(B)	į
4					Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0	0 % (A/E	B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	20	x 4 =	80	
1.Agoseris heterophylla		5	No	Not Listed	UPL species	80	x 5 =	400	
2. Elymus caput medusae		40	Yes	UPL	Column Totals:	100	(A)	480	(B)
3. Festuca microstachys		25	Yes	Not Listed	Prevalence	Index = B/	A =	4.80	
4. Dodecatheon clevelandii ssp. po		10	No	Not Listed	Hydrophytic Veg	etation Inc	dicators:		
5. Erodium botrys		20	Yes	FACU	Dominance T	est is >50%	6		
6.					Prevalence Ir				
7.					Morphologica	l Adaptatio	ns¹ (Provide n a separate	supporting	
8					- Problematic H			*	
Woody Vine Stratum	Total Cover:	100%			i robiematio i	туагорпуш	vogetation	(Explain)	
					¹ Indicators of hyd	ric soil and	d wetland hy	drology mu	st
				-	be present.		,	07	
Z	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 💽	`	
Remarks:		510110			i ioodiiti	163	140 @		
Nomano.									
1									

SOIL Sampling Point: $\underline{U56}$

Profile Des	scription: (Describe t	to the depth need	ded to docur	ment the i	ndicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-12	2.5 YR 2.5/3						Clay loam					
	_											
							-					
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand Gr	rains	Location: PL=Pore Lining, M=Matrix.				
								- 3				
	Indicators: (Applicabl	e to all LRRs, unit						Problematic Hydric Soils: 3				
Histos	Epipedon (A2)		Sandy Redo	` '				ck (A9) (LRR C) ck (A10) (LRR B)				
	Histic (A3)		Loamy Muc	, ,	I (F1)			Vertic (F18)				
l 🖳	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)				
	ed Layers (A5) (LRR C	:)	Depleted M		(/			κplain in Remarks)				
	/luck (A9) (LRR D)	,	Redox Dark		(F6)		` `	,				
Deplet	ed Below Dark Surface	e (A11)	Depleted Da	ark Surfac	e (F7)		A lasta de la consta	books a books on a set of a constant				
Thick [Dark Surface (A12)		Redox Dep	ressions (F8)			hydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Pool	s (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4)						uniess dis	unbuted of problematic				
	e Layer (if present):											
Type:												
Depth (i	inches):						Hydric Soil Pr	resent? Yes No No				
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rock	scattere	d near su	ırface.					
HYDROL	ngy											
	ydrology Indicators:											
	dicators (minimum of o	no roquirod: choo	call that anal	v/)			Seconda	ry Indicators (2 or more required)				
	•	ne required, checi						ter Marks (B1) (Riverine)				
l ==	e Water (A1)	L	Salt Crust	` '								
l 🖳 🧻	Vater Table (A2)	L	Biotic Crus		- (D40)			liment Deposits (B2) (Riverine)				
l 🖳	ition (A3)	L	Aquatic In					Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	· =	Hydrogen		` '	Date - Dec	= =	nage Patterns (B10)				
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	Season Water Table (C2)				
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)				
	e Soil Cracks (B6)		Recent Iro			ea Solis (uration Visible on Aerial Imagery (C9)				
	ation Visible on Aerial II	magery (B7)	Thin Muck	,	,			llow Aquitard (D3)				
	-Stained Leaves (B9)		Other (Exp	piain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse			5 //									
		es No	Depth (in	· —								
Water Tabl	e Present? Ye	es No	Depth (in	ches):								
Saturation (includes c	Present? Ye apillary fringe)	es O No •	Depth (in	ches):		Wetl	and Hydrology P	Present? Yes O No •				
	lecorded Data (stream	gauge, monitoring	g well, aerial į	photos, pr	evious ins	pections),	if available:	_				
Remarks:												

Project/Site: The Valley's Edge			City/C	county:Butte		Sar	mpling Date:	1-14-15
Applicant/Owner:B. Brouhard					State:CA	Sar	mpling Point:	:U57
Investigator(s):D. Machek, E. Gregg			Section	on, Township, Ra	nge:S 32, T 22N	I, R 2E		
Landform (hillslope, terrace, etc.): terrace			Local	I relief (concave,	convex, none):con	nvex	SI	ope (%):3.5
Subregion (LRR):C - Mediterranean Ca		Lat:39.7	71916	6	Long:-121.772	577		tum:WGS 84
Soil Map Unit Name: Doemill-Jokerst,						classification		
Are climatic / hydrologic conditions on the	-	-	ar? V	es No (ain in Rema		
		gnificantly			"Normal Circumsta		,	No (
	, <u> </u>					•		9 140
,		iturally pro			eeded, explain any		,	
SUMMARY OF FINDINGS - Atta	ach site map sl	howing	sam	pling point le	ocations, tran	sects, im	portant fe	eatures, et
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?	Yes No			Is the Sample	d Area			
Wetland Hydrology Present?	Yes No	•		within a Wetla	nd? Ye	s C	No 💿	
Remarks:								
VEGETATION								
Total Otractions (I) In a single (iii)		Absolute		nant Indicator	Dominance Te	st workshe	et:	
Tree Stratum (Use scientific names.)		% Cover	Spec	ies? Status	Number of Dom			0 (4)
1					That Are OBL, F	-ACVV, or FA	AC:	(A)
2. 3.					Total Number o			2 (D)
	·				Species Across	All Strata:		3 (B)
4	Total Cover:	0/			Percent of Dom			
Sapling/Shrub Stratum	Total Cover.	%			That Are OBL, F	-ACVV, or FA	4C: ().0 % (A/B
1.					Prevalence Ind	ex workshe	eet:	
2.					Total % Co	ver of:	Multip	oly by:
3.					OBL species		x 1 =	0
4					FACW species		x 2 =	0
5					FAC species	10	x 3 =	30
Llank Chrahima	Total Cover:	%			FACU species	25	x 4 =	100
Herb Stratum		25	Vac	LIDI	UPL species	65	x 5 =	325
1. Elymus caput medusae		35 10	Yes No	UPL FAG	Column Totals:	100	(A)	455 (I
2.Hordeum marinum ssp. gussonea. 3.Festuca microstachys	<u>num</u> 	20	Yes	FAC Not Listed	Prevalenc	e Index = B	/A =	4.55
4. Erodium botrys		25	$\frac{1 \text{ es}}{\text{Yes}}$	FACU	Hydrophytic Vo			
5.Layia fremontii		10	$\frac{1 \text{ cs}}{\text{No}}$	Not Listed		Test is >50		
6.		10	- 110	Not Eisted	Prevalence	Index is ≤3.	.0 ¹	
7.					Morphologi	cal Adaptati	ons¹ (Provid	e supporting
8.							on a separat	•
	Total Cover:	100%			Problemation	c Hydrophyti	c Vegetation	າ ¹ (Explain)
Woody Vine Stratum		100%						
1					Indicators of hyber be present.	ydric soil an	d wetland h	ydrology mus
2					-			
	Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum0	% Cover	of Biotic C	Crust	%	Present?	Yes C	No (•
Remarks:								
I .								

SOIL Sampling Point: $\underline{\text{U57}}$

Profile Des	scription: (Describe t	to the depth nee				or confirn	n the absence of inc	dicators.)
Depth (inches)	Matrix	% Col		x Features	Type ¹	Loc ²	Toyturo	Domorko
(inches)	Color (moist)		or (moist)	%	_ rype ·	LOC_	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
	-							
1 _T 0. (Latina DM Dadu	and Matrice Of				21	ocation: PL=Pore Lining, M=Matrix.
Type: C=0	Concentration, D=Depl	letion, RIVI=Reduc	ced Matrix. C	S=Covered	d or Coate	a Sana Gi	rains LC	cation. PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwise	noted.)			Indicators for Pro	oblematic Hydric Soils: 3
Histoso		,	Sandy Redo	-				A9) (LRR C)
	Epipedon (A2)		Stripped Ma	. ,			2 cm Muck (A10) (LRR B)
📖	Histic (A3)		Loamy Mud	-	, ,		Reduced Ve	
	gen Sulfide (A4)	<u> </u>	Loamy Gle		(F2)			Material (TF2)
	ed Layers (A5) (LRR C	·)	Depleted M Redox Dark	, ,	(E6)		Uther (Expla	ain in Remarks)
	luck (A9) (LRR D) ed Below Dark Surface	(A11)	Depleted D		. ,			
	Dark Surface (A12)	(/(1/)	Redox Dep		. ,			drophytic vegetation and
l <u> </u>	Mucky Mineral (S1)		Vernal Poo	•	- /			ology must be present.
	Gleyed Matrix (S4)		J	, ,			unless distrib	outed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	·						Hydric Soil Pres	ent? Yes No 💿
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rocl	k scattere	d near su	ırface.	
HYDROL	OGY							
	ydrology Indicators:							
	licators (minimum of o	ne required: chec	k all that app	v)			Secondary	Indicators (2 or more required)
	e Water (A1)	Γ	Salt Crust					Marks (B1) (Riverine)
	/ater Table (A2)		Biotic Cru				Sedime	ent Deposits (B2) (Riverine)
l 🖳 🐧	tion (A3)		Aguatic In		s (B13)			eposits (B3) (Riverine)
🖳	Marks (B1) (Nonriveri	ne)	Hydrogen		,		Draina	ge Patterns (B10)
l 🗀	ent Deposits (B2) (Nor	· · ·	Oxidized I		` '	Living Roo	=	ason Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	, <u>_</u>	Presence		_	_	· · · · —	h Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	Ĺ	Recent Iro	n Reducti	on in Plow	, ed Soils (ion Visible on Aerial Imagery (C9)
=	tion Visible on Aerial In	magery (B7)	Thin Muck	Surface (C7)		Shallov	v Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Exp	olain in Re	marks)			eutral Test (D5)
Field Obse	ervations:	_	<u> </u>					
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):				
Water Tabl	e Present? Ye	es No 💿	Depth (in	ches):				
Saturation		es O No 💿	Depth (in	ches):		Wetl	and Hydrology Pre	sent? Yes O No •
	apillary fringe) ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			Sent: 1es C NO C
	(**************************************	33	9 . ,	, , ,		,		
Remarks:								

Project/Site: The Valley's Edge			City/Cour	ity:Butte		Sam	pling Date: 1	-14-15		
Applicant/Owner: B. Brouhard		State:CA Samp						mpling Point:U58		
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N, 1	R 2E				
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ief (concave,	convex, none):conv	ex	Slop	pe (%):3.5		
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	719166		Long:-121.77257	' 7	Datu	m:WGS 84	ļ	
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	ssification	:Upland			
Are climatic / hydrologic conditions on th	ne site typical for this	time of ye	ear? Yes	No ((If no, explair	n in Remar	ks.)			
Are Vegetation Soil or Hy	ydrology sig	gnificantly	disturbed	? Are	"Normal Circumstand	ces" prese	nt? Yes 💿	No 🔘		
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in I	Remarks.)			
SUMMARY OF FINDINGS - At	tach site map sl	howing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	atures, et	c.	
Hydrophytic Vegetation Present?	Yes No	•								
Hydric Soil Present?		•	Is	the Sample	d Area					
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿			
Remarks:										
VEGETATION										
Tree Stratum (Use scientific names.)		Absolute % Cover	Species	t Indicator Status	Number of Domina					
1.	_				That Are OBL, FA			(A)		
2.					Total Number of D	Ominant				
3.					Species Across Al		3	(B)		
4					Percent of Domina	ant Species	3			
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A/E	3)	
1.					Prevalence Index	workshe	et:			
2.					Total % Cove		Multiply	y by:		
3.				_	OBL species		x 1 =	0		
4.					FACW species		x 2 =	0		
5					FAC species	10	x 3 =	30		
	Total Cover:	%			FACU species	25	x 4 =	100		
Herb Stratum		2.5	3.7		UPL species	65	x 5 =	325		
1. Elymus caput medusae		35	Yes	UPL -	Column Totals:	100	(A)	455 ((B)	
2.Hordeum marinum ssp. gussone 3.Festuca microstachys	<u>anum</u> -	10 20	$\frac{\text{No}}{\text{Yes}}$	FAC Not Listed	Prevalence I	ndex = B/	A =	4.55		
4. Erodium botrys		25	$\frac{1es}{Yes}$	FACU	Hydrophytic Veg	etation Inc	dicators:			
5.Layia fremontii		10	No	Not Listed	Dominance T					
6.			-		Prevalence In	dex is ≤3.0)1			
7.					Morphologica	l Adaptatio	ns¹ (Provide	supporting		
8.							n a separate			
	Total Cover:	100%			Problematic F	iyaropnytic	vegetation	(Explain)		
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hy	drology mus	st	
1. 2.				_	be present.	110 3011 4110	wolland ny	arology mac	,,	
2	Total Cover:	%			Hydrophytic					
% Bare Ground in Herb Stratum(% Cover 0	of Biotic C	Crust	%_	Vegetation Present?	Yes 🔘	No 🗨)		
Remarks:									\neg	

SOIL Sampling Point: $\underline{U58}$

Profile Des	scription: (Describe t	to the depth need	ded to docur	ment the i	ndicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks				
0-12	2.5 YR 2.5/3						Clay loam					
	_											
							-					
¹ Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ed Matrix. CS	S=Covered	d or Coate	d Sand Gr	rains	Location: PL=Pore Lining, M=Matrix.				
								- 3				
	Indicators: (Applicabl	e to all LRRs, unit						Problematic Hydric Soils: 3				
Histos	Epipedon (A2)		Sandy Redo	` '				ck (A9) (LRR C) ck (A10) (LRR B)				
	Histic (A3)		Loamy Muc	, ,	I (F1)			Vertic (F18)				
l 🖳	gen Sulfide (A4)		Loamy Gley					ent Material (TF2)				
	ed Layers (A5) (LRR C	:)	Depleted M		(/			κplain in Remarks)				
	/luck (A9) (LRR D)	,	Redox Dark		(F6)		` `	,				
Deplet	ed Below Dark Surface	e (A11)	Depleted Da	ark Surfac	e (F7)		A lasta de la consta	books a books on a set of a constant				
Thick [Dark Surface (A12)		Redox Dep	ressions (F8)			hydrophytic vegetation and				
	Mucky Mineral (S1)		Vernal Pool	s (F9)			wetland hydrology must be present. unless distributed or problematic					
	Gleyed Matrix (S4)						uniess dis	unbuted of problematic				
	e Layer (if present):											
Type:												
Depth (i	inches):						Hydric Soil Pr	resent? Yes No No				
Remarks: I	Bedrock located at 1	2 inches, large	amounts of	lava rock	scattere	d near su	ırface.					
HYDROL	ngy											
	ydrology Indicators:											
	dicators (minimum of o	no roquirod: choo	call that anal	v/)			Seconda	ry Indicators (2 or more required)				
	•	ne required, checi						ter Marks (B1) (Riverine)				
l ==	e Water (A1)	L	Salt Crust	` '								
l 🖳 🧻	Vater Table (A2)	L	Biotic Crus		- (D40)			liment Deposits (B2) (Riverine)				
l 🖳	ition (A3)	L	Aquatic In					Deposits (B3) (Riverine)				
=	Marks (B1) (Nonriveri	· =	Hydrogen		` '	Date - Dec	= =	nage Patterns (B10)				
	ent Deposits (B2) (Nor		Oxidized F		_	-	(,	Season Water Table (C2)				
l <u>—</u>	eposits (B3) (Nonriver	ine)	Presence		`	,		yfish Burrows (C8)				
	e Soil Cracks (B6)		Recent Iro			ea Solis (uration Visible on Aerial Imagery (C9)				
	ation Visible on Aerial II	magery (B7)	Thin Muck	,	,			llow Aquitard (D3)				
	-Stained Leaves (B9)		Other (Exp	piain in Re	marks)		FAC	C-Neutral Test (D5)				
Field Obse			5 //									
		es No	Depth (in	· —								
Water Tabl	e Present? Ye	es No	Depth (in	ches):								
Saturation (includes c	Present? Ye apillary fringe)	es O No •	Depth (in	ches):		Wetl	and Hydrology P	Present? Yes O No •				
	lecorded Data (stream	gauge, monitoring	g well, aerial į	photos, pr	evious ins	pections),	if available:	_				
Remarks:												

Project/Site: The Valley's Edge		City/Count	y:Butte		Sam	pling Date: 1	1-19-15	
Applicant/Owner: B. Brouhard				State:CA	Sam	pling Point:	J60	
Investigator(s):D. Machek, E. Gregg		Section, To	ownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace		Local relie	f (concave,	convex, none):conv	ex	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean California	Lat:39.7	717483		Long:-121.76822	29	Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent	slopes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the site typical for t	his time of ye	ear? Yes	No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hydrology	significantly	disturbed?	Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (\supset
Are Vegetation Soil or Hydrology	naturally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point l	ocations, transe	ects, imp	ortant fe	atures,	etc.
Hydrophytic Vegetation Present? Yes	No (
Hydric Soil Present? Yes	No (ls t	he Sample	d Area				
Wetland Hydrology Present? Yes	No 💿	witl	nin a Wetla	nd? Yes	\bigcirc	No 💿		
Remarks:								
VEGETATION								
VEGETATION	Abaaluta	Dominant	Indicator	Deminence Test	wantahaa	4.		
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?		Number of Domin				
1.				That Are OBL, FA) (<i>F</i>	A)
2.				Total Number of D	Ominant			
3.				Species Across A		3	3 (E	В)
4.				Percent of Domina	ant Species	2		
Total Co	ver: %			That Are OBL, FA			.0 % (A	4/B)
Sapling/Shrub Stratum 1.				Prevalence Index	worksho	ot-		
2.				Total % Cove		Multip	ly by:	
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cov	/er: %			FACU species	35	x 4 =	140	
Herb Stratum				UPL species	65	x 5 =	325	
1.Elymus caput medusae		Yes	UPL	Column Totals:	100	(A)	465	(B)
2-Erodium botrys	25	Yes	FACU	Prevalence	Index - B/	Δ _	4.65	
3.Festuca sp.	$-\frac{20}{15}$	Yes	Not Listed	Hydrophytic Veg			4.03	
4. Dodecatheon clevelandii ssp. patulum	$-\frac{15}{10}$	No	Not Listed	Dominance T				
5.Bromus hordeaceous 6.		No	FACU	Prevalence Ir				
7.				Morphologica			supporting	g
8.						n a separate		
Total Cov	/er: 100 %			Problematic F	Hydrophytic	Vegetation	(Explain)	
Woody Vine Stratum	100%							
1				¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology m	ust
2				_				
Total Cov	ver: %			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0 % Cov	er of Biotic C	Crust	%_	Present?	Yes 🔘	No 🤄	•	
Remarks:				1				

SOIL Sampling Point: $\underline{\text{U}60}$

Depth	soniptionii (Booonibo		eeded to docu	ment the i	naicator o	or confirm	n the absence o	r indicators.)
	Matrix			x Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	_
	_							
	_							
	_							
								_
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Re	duced Matrix. C	S=Covered	d or Coate	d Sand Gr	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicab	le to all LRRs,	unless otherwis	e noted.)			Indicators fo	Problematic Hydric Soils: 3
Histose		ŕ	Sandy Redo					ck (A9) (LRR C)
Histic I	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Mu	ck (A10) (LRR B)
	Histic (A3)		Loamy Mu					Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			ent Material (TF2)
	ed Layers (A5) (LRR (C)	Depleted N	, ,	(50)		Other (E	xplain in Remarks)
	Muck (A9) (LRR D)	o (A11)	Redox Dar Depleted D					
. — .	ed Below Dark Surfac Dark Surface (A12)	e (ATT)	Redox Dep		, ,		3 Indicators o	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo		0)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)			(1 0)			unless di	stributed or problematic
	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil P	resent? Yes No •
Remarks:	·						1 -	
HYDROL	OGY							
Wetland H	ydrology Indicators:							
	dicators (minimum of c		eck all that app	ly)				ary Indicators (2 or more required)
Primary Inc	dicators (minimum of c		eck all that app	-				ary Indicators (2 or more required) ater Marks (B1) (Riverine)
Primary Inc	`			t (B11)			Wa	
Primary Inc	e Water (A1)		Salt Crus	t (B11)	s (B13)		Wa	ater Marks (B1) (Riverine)
Primary Ind Surfac High W Satura	e Water (A1) Vater Table (A2)	one required; ch	Salt Crusi Biotic Cru Aquatic Ir	t (B11) st (B12)			Wa Se	ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine)
Primary Inc Surfac High W Satura Water	e Water (A1) Vater Table (A2) tion (A3)	one required; ch	Salt Crus Biotic Cru Aquatic Ir Hydrogen	t (B11) st (B12) overtebrate	dor (C1)	Living Roc	Wa Se	ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine)
Primary Inc Surfac High W Satura Water Sedim	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver	one required; ch ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized	t (B11) st (B12) overtebrate Sulfide Od	dor (C1) res along	-	Wa Wa See Driving Driv	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10)
Primary Inc Surfac High W Satura Water Sedime	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No	one required; ch ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence	t (B11) st (B12) nvertebrate Sulfide Oo	dor (C1) res along d Iron (C4	·)	Wa Wa See Driving Driving Driving Crain	tter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2)
Primary Inc Surfac High W Satura Water Sedime Drift De	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No	one required; ch ine) nriverine) rine)	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) st (B12) nvertebrate Sulfide Oo Rhizosphe of Reduce	dor (C1) res along d Iron (C4 on in Plow	·)	Wa See Drii Dra Dra Cra C6) Sat	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Primary Inc Surfac High W Satura Water Sedime Drift De Surfac Inunda	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6)	one required; ch ine) nriverine) rine)	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro Thin Mucl	t (B11) st (B12) evertebrate Sulfide Oo Rhizosphe of Reduce on Reducti	dor (C1) res along l d Iron (C4 on in Plow C7)	·)	Wa See Drii Dra Ots (C3) Dry Cra C6) Sat Sha	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Primary Inc Surfac High W Satura Water Sedime Drift De Surfac Inunda	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) attion Visible on Aerial (Stained Leaves (B9)	one required; ch ine) nriverine) rine)	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Iro Thin Mucl	t (B11) st (B12) evertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (dor (C1) res along l d Iron (C4 on in Plow C7)	·)	Wa See Drii Dra Ots (C3) Dry Cra C6) Sat Sha	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
Primary Inc Surfac High W Satura Water Sedime Drift De Surfac Inunda Water-	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial estained Leaves (B9) ervations:	one required; ch ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire Thin Mucl Other (Ex	it (B11) st (B12) evertebrate Sulfide Oo Rhizosphe of Reduce on Reducti c Surface (plain in Re	dor (C1) res along l d Iron (C4 on in Plow C7)	·)	Wa See Drii Dra Ots (C3) Dry Cra C6) Sat Sha	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
Primary Inc Surfac High W Satura Water Sedime Drift De Surfac Inunda Water-	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial (Stained Leaves (B9) ervations: ater Present?	ine) nriverine) rine) Imagery (B7)	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex	t (B11) st (B12) nvertebrate Sulfide Oo Rhizosphe of Reduce on Reducti c Surface (plain in Re	dor (C1) res along l d Iron (C4 on in Plow C7)	·)	Wa See Drii Dra Ots (C3) Dry Cra C6) Sat Sha	ter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) t Deposits (B3) (Riverine) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Water Tabl Saturation	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial Stained Leaves (B9) ervations: ater Present? Present? Y	ine) nriverine) rine) Imagery (B7)	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex	it (B11) ist (B12) ivertebrate Sulfide Or Rhizosphe of Reduce on Reducti c Surface (plain in Re inches):	dor (C1) res along l d Iron (C4 on in Plow C7)	ed Soils (0	Wa See Drii Dra Orts (C3) Dry Cra C6) Sat Sha FA	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Wa Water Tabl Saturation (includes ca	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial (Stained Leaves (B9) ervations: ater Present? Present? Present? Apillary fringe)	ine) nriverine) rine) Imagery (B7) Yes No	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex Depth (ir Depth (ir	t (B11) st (B12) nvertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (plain in Re aches): aches):	dor (C1) res along d Iron (C4 on in Plow C7) marks)	ved Soils (0	Wa See Driver See Care Care Se	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Wa Water Tabl Saturation (includes ca	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial Stained Leaves (B9) ervations: ater Present? Present? Y	ine) nriverine) rine) Imagery (B7) Yes No	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex Depth (ir Depth (ir	t (B11) st (B12) nvertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (plain in Re aches): aches):	dor (C1) res along d Iron (C4 on in Plow C7) marks)	ved Soils (0	Wa See Driver See Care Care Se	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Water Tabl Saturation (includes co	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial (Stained Leaves (B9) ervations: ater Present? Present? Present? Apillary fringe)	ine) nriverine) rine) Imagery (B7) Yes No	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex Depth (ir Depth (ir	t (B11) st (B12) nvertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (plain in Re aches): aches):	dor (C1) res along d Iron (C4 on in Plow C7) marks)	ved Soils (0	Wa See Driver See Care Care Se	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Wa Water Tabl Saturation (includes ca	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial (Stained Leaves (B9) ervations: ater Present? Present? Present? Apillary fringe)	ine) nriverine) rine) Imagery (B7) Yes No	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex Depth (ir Depth (ir	t (B11) st (B12) nvertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (plain in Re aches): aches):	dor (C1) res along d Iron (C4 on in Plow C7) marks)	ved Soils (0	Wa See Driver See Care Care See See Car	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
Primary Inc Surfac High W Satura Water Sedime Surfac Inunda Water- Field Obse Surface Water Tabl Saturation (includes co	e Water (A1) Vater Table (A2) tion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial (Stained Leaves (B9) ervations: ater Present? Present? Present? Apillary fringe)	ine) nriverine) rine) Imagery (B7) Yes No	Salt Cruss Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Mucl Other (Ex Depth (ir Depth (ir	t (B11) st (B12) nvertebrate Sulfide Oc Rhizosphe of Reduce on Reducti c Surface (plain in Re aches): aches):	dor (C1) res along d Iron (C4 on in Plow C7) marks)	ved Soils (0	Wa See Driver See Care Care See See Car	atter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) at Deposits (B3) (Riverine) dinage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
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Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	pling Date: 1-	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	61	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conv	ex	Slop	oe (%):3.5	5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	l 6	 Datur	m:WGS 8	84
Soil Map Unit Name: Doemill-Jokerst,	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (\supset
Are Vegetation Soil or Hy	rdrology na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No			thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute		t Indicator	Dominance Test				
Tree Stratum (Use scientific names.) 1.		% Cover	Species	Status_	Number of Domina That Are OBL, FA			(4	A)
2.					-		0. 0	(/	٦)
3.					 Total Number of D Species Across A 		3	(1	B)
4.					Percent of Domina			(-	_,
Continue/Charle Charters	Total Cover:	%			That Are OBL, FA) % (A	A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshe	at.		
2.					Total % Cove		Multiply	/ bv:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	25	x 4 =	100	
Herb Stratum		2.7	* 7		UPL species	75	x 5 =	375	
1. Elymus caput medusae		25	Yes	UPL	Column Totals:	100	(A)	475	(B)
2.Erodium botrys 3.Festuca sp.		25 25	Yes Yes	FACU	Prevalence	Index = B/	A =	4.75	
4. Centaurea solstitialis		15	No	Not Listed Not Listed	Hydrophytic Veg	etation Inc	dicators:		
5.Layia fremontii		10	No	Not Listed	Dominance T				
6.		10			Prevalence In	dex is ≤3.0)1		
7.					Morphologica	l Adaptatio	ns ¹ (Provide	supportin	g
8.					data in Re Problematic H		n a separate		
	Total Cover:	100%			- Problematic F	туагорпушс	vegetation	(Explain)	
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hvo	drology m	nust
1. 2.					be present.	no con and	. Woulding Try	nology III	idot
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum 0	% % Cover of		Crust	%	Vegetation Present?	Yes 〇	No 💿		
Remarks:									

SOIL Sampling Point: $\underline{\text{U61}}$

Depth Matrix Redox Features Clay loam Clay l	Profile Description: (Describe to the depth needed to document the indicator or confirm	in the absence of in-	uicators.)
O-12 2.5 YR 2.5/3 100 Clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Histosoil (A1) Sandy Redox (S5) Histo: Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Selow Dark Surface (A1) Depleted Below Dark Surface (A1) Thick Dark (A9) (LRR C) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Recondary Indicators (2 or more required) Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) (Nonriverine) Secondary Indicators (2 or more required) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		- Toydeino	Domortes
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: D=Coation: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Expisedon (A2) Histic Expisedon (A2) Stripped Matrix (S6) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) D=Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depleted Below Dark Surface (A12) Belot Crust (B11) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Water Matrix (B1) (Riverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 1 cm Muck (A9) (LRR C) 1 cm Muck (A9)			кетагкѕ
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histol (A1) Histol (A2) Histol Epipedon (A2) Black Histol (A3) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	0-12 2.5 YR 2.5/3 100	Clay loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B3) (Nonriverine) Depleted Seloved Indicators (Caylish Burrows (C8)			
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Histosol (A1)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. C5=Covered or Coated Sand G	rains Lo	ocation. PL=Pore Lining, M=Matrix.
Histosol (A1)	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Pro	oblematic Hydric Soils: 3
Black Histic (A3)			
Hydrogen Sulfide (A4)	Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck ((A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Sutration (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Nonriverine) Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		<u> </u>	
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Sandy Mucky Mineral (S1)		3 Indicators of hy	drophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		wetland hydr	ology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No No No No Hydric Soil Present? Yes No No No No No No No No		unless distrib	outed or problematic
Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Trift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Type:		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Depth (inches):	Hydric Soil Pres	ent? Yes ○ No ●
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near su	urface	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Sediment Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	HYDROLOGY		
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		Secondary	Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			, , , , , , , , , , , , , , , , , , , ,
Water Marks (B1) (Nonriverine)			
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			. , , , ,
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		= = =	
		(/	· · ·
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)		` ′ 🖳	9 , (
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No (a) Depth (inches):			
Saturation Present? Yes No (Depth (inches):			
(includes capillary fringe) Wetland Hydrology Present? Yes No •	(includes capillary fringe) Wet		sent? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)), if available:	
Remarks:	kemarks:		

Project/Site: The Valley's Edge			City/Coun	ity:Butte		Sam	pling Date: 1	-19-15
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	62
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conv	ex	Slop	oe (%):3.5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	6	Datur	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	ssification	:Upland	
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	ks.)	
Are Vegetation Soil or Hy	drology sig	gnificantly	disturbed	? Are	"Normal Circumstan	ces" presei	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in I	Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map sl	howing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	atures, etc
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?		•	Is	the Sample	d Area			
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿	
Remarks:								
VEGETATION								
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test			
1.	_				Number of Domina That Are OBL, FA			(A)
2.			-		- - Total Number of D			
3.					Species Across A		3	(B)
4.					Percent of Domina	ant Species	2	
Capling/Chrub Ctratum	Total Cover:	%			That Are OBL, FA) % (A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshe	et·	
2.			-		Total % Cove		Multiply	v bv:
3.					OBL species		x 1 =	0
4.			-		FACW species		x 2 =	0
5.					FAC species		x 3 =	0
	Total Cover:	%			FACU species	20	x 4 =	80
Herb Stratum					UPL species	80	x 5 =	400
1.Elymus caput medusae		35	Yes	UPL	Column Totals:	100	(A)	480 (B)
2 Dodecatheon clevelandii ssp. par	tulum	15	No	Not Listed	Prevalence	ndex = B/	Α =	4.80
3. Festuca sp. 4. Erodium botrys		20	Yes Yes	Not Listed FACU	Hydrophytic Veg			7.00
5.Centaurea solstitialis		10	$\frac{1 \text{ es}}{\text{No}}$	Not Listed	Dominance T			
6.		10	- 140	- Not Listed	Prevalence In			
7.				-	Morphologica	l Adaptatio	ns ¹ (Provide	supporting
8.							n a separate	
	Total Cover:	100%			Problematic F	lydrophytic	: Vegetation	(Explain)
Woody Vine Stratum		100 /0			1	,		
1					¹ Indicators of hyd be present.	ric soil and	d wetland hyd	arology must
2	Total Cover:	%			Hydrophytic			
% Bare Ground in Herb Stratum $_$	% Cover of	of Biotic C	Crust	%_	Vegetation Present?	Yes 🔘	No 💿	
Remarks:								

SOIL Sampling Point: $\underline{\text{U62}}$

Profile Description: (Describe to the depth needed to docum	nent the indicator	or confirm the	absence of i	ndicators.)
	Features			
(inches) Color (moist) % Color (moist)	%Type ¹	Loc ²	<u>Texture</u>	Remarks Remarks
0-12 2.5 YR 2.5/3 100		Clay	y loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS:	=Covered or Coate	ed Sand Grains	2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise				Problematic Hydric Soils: 3
Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mat	, ,	[<pre>< (A9) (LRR C)</pre> < (A10) (LRR B)
	ky Mineral (F1)	[Vertic (F18)
	ed Matrix (F2)	[nt Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Ma		[plain in Remarks)
	Surface (F6)	·		,
Depleted Below Dark Surface (A11) Depleted Da	ark Surface (F7)	_	La d'a ataux at la	ordere by the consistence and
Thick Dark Surface (A12) Redox Depre	essions (F8)	3		hydrophytic vegetation and drology must be present.
Sandy Mucky Mineral (S1) Vernal Pools	s (F9)		-	
Sandy Gleyed Matrix (S4)			uriless disti	ributed or problematic
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Н	ydric Soil Pre	esent? Yes No No
Remarks: bedrock located at 12 inches, large amounts of la	ava rock scattere	d near surfac	e	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required; check all that apply	Λ		Secondar	y Indicators (2 or more required)
	•			er Marks (B1) (Riverine)
	` '			ment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust Caturation (A2)				Deposits (B3) (Riverine)
	rertebrates (B13)			age Patterns (B10)
	Sulfide Odor (C1)	Living Doots (= -	Season Water Table (C2)
	hizospheres along		- / L	` ,
	of Reduced Iron (C	,	=	ish Burrows (C8)
	n Reduction in Plov	ved Solis (Co)		ration Visible on Aerial Imagery (C9)
	Surface (C7)			ow Aquitard (D3)
	lain in Remarks)			Neutral Test (D5)
Field Observations:	.la = = \.			
Surface Water Present? Yes No Depth (inc	· ———			
Water Table Present? Yes No Depth (incl				
Saturation Present? Yes No Depth (includes capillary fringe)	:hes):	Wetland	Hydrology Pr	resent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous ins			
	•	,-		
Remarks:				

Project/Site: The Valley's Edge		City/Coun	ty:Butte		Sam	npling Date: 1	-119-15
Applicant/Owner: B. Brouhard				State:CA	Sam	pling Point:U	J63 & 64
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange:S 32, T 22N, F	R 2E	_	
Landform (hillslope, terrace, etc.): terrace		Local reli	ef (concave,	convex, none):conve	ex	Slop	pe (%):3.5
Subregion (LRR):C - Mediterranean California	Lat:39.	714091		Long:-121.77704	6	 Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent sl	lopes			NWI cla	ssification		
Are climatic / hydrologic conditions on the site typical for thi		ear? Yes (• No (
	significantly			"Normal Circumstance		,	No 🔘
	naturally pr			eeded, explain any ar			110
							-1
SUMMARY OF FINDINGS - Attach site map	snowing	sampili	ng point i	ocations, transe	cts, imp	portant rea	atures, etc.
Hydrophytic Vegetation Present? Yes N	lo 💿						
	lo 📵	Is	the Sample	d Area			
,	lo 💿	I	thin a Wetla		\circ	No 💿	
Remarks:This data sheet is to be used as the upland	sample po	oint for w	'F 63 and 6	04.			
VECETATION							
VEGETATION	Absoluto	Dominon	t Indiantor	Deminance Toot		4.	
Tree Stratum (Use scientific names.)	Absolute % Cover	Species?	t Indicator Status	Number of Domina			
1.				That Are OBL, FAC			(A)
2.				Total Number of D	ominant		
3.				Species Across All		2	(B)
4.				Percent of Domina	nt Specie	6	
Total Cove	er: %			That Are OBL, FAC			0 % (A/B)
Sapling/Shrub Stratum 1.				Prevalence Index	worksho	ot:	
2.				Total % Cover		Multiply	v bv
3.			-	OBL species	OI.	x 1 =	0
4.	_		-	FACW species		x 2 =	0
5.	-	-	-	FAC species		x 3 =	0
Total Cove	r: %			FACU species	35	x 4 =	140
Herb Stratum				UPL species	65	x 5 =	325
1. Elymus caput medusae	35	Yes	UPL	Column Totals:	100	(A)	465 (B)
2.Bromus hordeaceous		Yes	FACU	Prevalence li	odov – B/	Λ _	4.65
3.Festuca sp.	15	No	Not Listed	Hydrophytic Vege			4.03
4. Erodium botrys		No	FACU	Dominance Te			
5.Layia fremontii 6.Centaurea solstitialis	$-\frac{5}{10}$	No No	Not Listed Not Listed	Prevalence Inc			
7.			- Not Listed	Morphological			supporting
8.			-	data in Rer	narks or o	n a separate	sheet)
Total Cove	r: 100 %			Problematic H	ydrophytic	Vegetation ¹	(Explain)
Woody Vine Stratum	100%						
1				¹ Indicators of hydr be present.	ic soil and	d wetland hyd	drology must
2				be present.			
Total Cove	r: %			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum0 % Cove	r of Biotic (Crust	%_	Present?	Yes 🔘	No 💿)
Remarks:			_ 				

SOIL Sampling Point: U63 & 64

Profile Description: (Describe to the depth needed to docum	nent the indicator	or confirm the	absence of i	ndicators.)
	Features			
(inches) Color (moist) % Color (moist)	%Type ¹	Loc ²	<u>Texture</u>	Remarks Remarks
0-12 2.5 YR 2.5/3 100		Clay	y loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS:	=Covered or Coate	ed Sand Grains	2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise				Problematic Hydric Soils: 3
Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mat	, ,	[<pre>< (A9) (LRR C)</pre> < (A10) (LRR B)
	ky Mineral (F1)	[Vertic (F18)
	ed Matrix (F2)	[nt Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Ma		[plain in Remarks)
	Surface (F6)	·		,
Depleted Below Dark Surface (A11) Depleted Da	ark Surface (F7)	_	La d'a ataux at la	ordere by the consistence and
Thick Dark Surface (A12) Redox Depre	essions (F8)	3		hydrophytic vegetation and drology must be present.
Sandy Mucky Mineral (S1) Vernal Pools	s (F9)		-	
Sandy Gleyed Matrix (S4)			uriless disti	ributed or problematic
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Н	ydric Soil Pre	esent? Yes No No
Remarks: bedrock located at 12 inches, large amounts of la	ava rock scattere	d near surfac	e	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required; check all that apply	Λ		Secondar	y Indicators (2 or more required)
	•			er Marks (B1) (Riverine)
	` '			ment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust Caturation (A2)				Deposits (B3) (Riverine)
	rertebrates (B13)			age Patterns (B10)
	Sulfide Odor (C1)	Living Doots (= -	Season Water Table (C2)
	hizospheres along		- / L	` ,
	of Reduced Iron (C	,	=	ish Burrows (C8)
	n Reduction in Plov	ved Solis (Co)		ration Visible on Aerial Imagery (C9)
	Surface (C7)			ow Aquitard (D3)
	lain in Remarks)			Neutral Test (D5)
Field Observations:	.la = = \.			
Surface Water Present? Yes No Depth (inc	· ———			
Water Table Present? Yes No Depth (incl				
Saturation Present? Yes No Depth (includes capillary fringe)	:hes):	Wetland	Hydrology Pr	resent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous ins			
	•	,-		
Remarks:				

Project/Site: The Valley's Edge		City/Cour	nty:Butte		Sam	pling Date: 1	-19-15
Applicant/Owner: B. Brouhard				State:CA	 Sam	pling Point:U	J65
Investigator(s):D. Machek, E. Gregg		Section,	Township, Ra	nge:S 32, T 22N, R	<u>2E</u>	_	
Landform (hillslope, terrace, etc.): terrace		Local re	lief (concave,	convex, none):conve	X	Slop	pe (%):3
Subregion (LRR):C - Mediterranean California	Lat:39.7	714091		Long:-121.777046		Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	ppes			NWI clas	sification	:Upland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes	No ((If no, explain i	n Remar	 ks.)	
Are Vegetation Soil or Hydrology si	gnificantly	disturbed	d? Are	'Normal Circumstance	s" prese	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hydrology na	aturally pro	oblematic	? (If ne	eeded, explain any ans	swers in I	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s							atures, etc.
Hydrophytic Vegetation Present? Yes No	•						
Hydric Soil Present? Yes No		Is	the Sampled	l Area			
, 0,	•	w	ithin a Wetla	nd? Yes	0	No 💿	
Remarks:							
VEGETATION							
	Absolute		nt Indicator	Dominance Test w	orkshee	t:	
	% Cover	Species	? Status	Number of Dominar			(4)
1		-		That Are OBL, FAC	W, or FA	C: 0	(A)
2. 3.				Total Number of Do		2	(D)
4.				Species Across All	Strata:	3	(B)
Total Cover	: %		_	 Percent of Dominan That Are OBL, FAC 			0 % (A/B)
Sapling/Shrub Stratum				Prevalence Index v	vorksho	ot:	
1			_	Total % Cover		Multiply	v bv.
3.				OBL species		x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cover:	%			FACU species	50	x 4 =	200
Herb Stratum				UPL species	50	x 5 =	250
1. Elymus caput medusae	35	Yes	UPL	Column Totals:	100	(A)	450 (B)
2-Erodium botrys	25	Yes	FACU	Prevalence Inc	dov – P/	Λ _	4.50
3.Bromus hordeaceous	25	Yes	FACU	Hydrophytic Veget			4.50
4-Layia fremontii	15	No	Not Listed	Dominance Tes			
5			_	Prevalence Inde			
6			_	Morphological A			supporting
8.						n a separate	
Total Cover:	100%			Problematic Hy	drophytic	: Vegetation ¹	(Explain)
Woody Vine Stratum	100 %			1			
1				¹ Indicators of hydric be present.	; soil and	d wetland hyd	drology must
2Total Cover:	%			Hydrophytic			
	of Biotic C	Crust	%_	Vegetation Present?	Yes 〇	No 🖲)
Remarks:			_ 	1			

SOIL Sampling Point: $\underline{\text{U65}}$

Profile Des	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence o	f indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3	100					Clay loam	
	_							
	-							
1- 0								21
'Type: C=0 	Concentration, D=Dep	oletion, RM=Redu	iced Matrix. C	S=Covere	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicat	ale to all I PRs un	less otherwise	a noted)			Indicators for	r Problematic Hydric Soils: ³
Histoso		ne to all Litits, di	Sandy Redo					ick (A9) (LRR C)
	Epipedon (A2)		Stripped M	, ,				ick (A10) (LRR B)
	Histic (A3)	Ī	Loamy Mu	cky Minera	ıl (F1)		Reduced	d Vertic (F18)
Hydrog	gen Sulfide (A4)		Loamy Gle	yed Matrix	(F2)			ent Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted M				Other (E	xplain in Remarks)
	Muck (A9) (LRR D)		Redox Dar		. ,			
	ed Below Dark Surfac	ce (A11)	Depleted D		` '		3 Indicators of	f hydrophytic vegetation and
	Dark Surface (A12)	Ļ	Redox Dep	,	F8)			hydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)	L	Vernal Poo	is (F9)				stributed or problematic
	Layer (if present):							
Type:	- Layor (procont):							
Depth (i	nches).		-				Hydric Soil P	resent? Yes No
. `	pedrock located at 1	12 inches large	amounts of	lava rock	scattered	d near su	-	
rtomants. c	ocarock rocated at 1	12 menes, rarge	amounts of	iava rock	Scattered	a near sa	Trace	
HYDROL	OGY							
Wetland H	ydrology Indicators:	:						
Primary Inc	dicators (minimum of o	one required; che	ck all that app	ly)				ary Indicators (2 or more required)
Surface	e Water (A1)		Salt Crust	t (B11)			Wa	ater Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru	st (B12)			Sec	diment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic In	vertebrate	es (B13)		Drif	ft Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrive	rine)	Hydrogen	Sulfide O	dor (C1)		Dra	inage Patterns (B10)
Sedime	ent Deposits (B2) (No	onriverine)	Oxidized	Rhizosphe	res along	Living Roo	ots (C3) Dry	-Season Water Table (C2)
Drift De	eposits (B3) (Nonrive	erine)	Presence	of Reduce	ed Iron (C4	!)	Cra	yfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	on Reducti	on in Plow	ed Soils (C6) Sat	uration Visible on Aerial Imagery (C9)
Inunda	tion Visible on Aerial	Imagery (B7)	Thin Muck	Surface ((C7)		Sha	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	emarks)		FAG	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present?	∕es ○ No ⊙	Depth (ir	nches):				
Water Table	e Present?	∕es ○ No ●	Depth (ir	nches):				
Saturation		∕es ○ No ●	Depth (ir	nches):		N/oti	land Usedvalags	Present? Yes No •
	apillary fringe) ecorded Data (stream	n gauge monitori	ng well aerial	nhotos nr	evious ins		if available:	Present? Yes (No (
Poscibe K	Soorada Data (Streatt	. gaage, moniton	ng won, achai	Priotos, pi	C 11003 1115	poolio(13),	availabis.	
Remarks:								
Nomans.								

Project/Site: The Valley's Edge		City/Count	y:Butte		Sampl	ing Date:1-1	19-15	
Applicant/Owner: B. Brouhard				State:CA	- Sampli	ing Point:U6	6, 67 8	& 68
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	nge:S 32, T 22N, R 2	- E			
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):convex		Slope	e (%):3	
Subregion (LRR):C - Mediterranean California	Lat:39.7	714091		Long:-121.777046		—— Datum	:WGS	84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	pes			NWI classif	cation:U	pland		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes	No ((If no, explain in	— Remarks	.)		
		disturbed?		'Normal Circumstances"	present?	Yes (•)	No (\circ
		oblematic?		eeded, explain any answ				
SUMMARY OF FINDINGS - Attach site map sl			`			,	ures,	etc.
Hydrophytic Vegetation Present? Yes No	•							
	(le f	he Sampled	Area				
	•		hin a Wetlar		No	•		
Remarks: This data sheet is to be used as the upland sa	ample po							
VEGETATION								
	Absolute % Cover	Dominant Species?		Dominance Test wor				
1.	70 00101	Оросноот.	<u> </u>	Number of Dominant S That Are OBL, FACW		0	(A)
2.				-		O .	(,
3.				Total Number of Domi Species Across All Str		3	(B)
4.							,	,
Total Cover:	%			 Percent of Dominant S That Are OBL, FACW 		0.0	% (/	A/B)
Sapling/Shrub Stratum				Decualance Index	ulanka nat			
1				Prevalence Index wo Total % Cover of:		Multiply	bv:	
2. 3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cover:	%			FACU species	35	x 4 =	140	
Herb Stratum				UPL species	65	x 5 =	325	
1. Elymus caput medusae	35	Yes	UPL	Column Totals:	100	(A)	465	(B)
2. <u>Erodium botrys</u>	20	Yes	FACU	Prevalence Inde	ν D/Λ		4.65	
3.Festuca sp.	20	Yes	Not Listed	Hydrophytic Vegetat			4.03	
4. Bromus hordeaceous	15	No	FACU	Dominance Test i		ators.		
5.Layia fremontii 6.Dodecatheon clevelandii ssp. patulum	5	No No	NI Not Listed	Prevalence Index				
7.		140	- Ivot Eisted	Morphological Ad		1 (Provide s	upportin	ıg
8.				data in Remar	ks or on a	a separate s	heet)	
Total Cover:	100%			Problematic Hydro	ophytic V	egetation1 (I	Explain)	
Woody Vine Stratum	100%			1				
1				¹ Indicators of hydric s be present.	oil and v	vetland hydr	ology m	nust
2								
Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum0 % Cover of	of Biotic C	Crust	%		es 🔘	No 💿		
Remarks:				-				

SOIL Sampling Point: U66, 67 &

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	ndicator	or confirm	n the absence of	of indicators.)
Depth	Matrix			x Features			- .	D
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
								_
¹ Type: C=0	Concentration, D=Depl	etion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs, unl	ess otherwis	e noted.)			Indicators fo	or Problematic Hydric Soils: 3
Histoso	, ,		Sandy Redo	` '			1 cm M	uck (A9) (LRR C)
	Epipedon (A2)		Stripped M	. ,	L (E 4)			uck (A10) (LRR B)
	Histic (A3) gen Sulfide (A4)		Loamy Mu Loamy Gle	-	. ,			ed Vertic (F18) rent Material (TF2)
	ed Layers (A5) (LRR C	:)	Depleted N	-	(1 2)			Explain in Remarks)
	fluck (A9) (LRR D)	,	Redox Dar		(F6)			
. — .	ed Below Dark Surface	e (A11)	Depleted D		` '		3 Indicators (of hydrophytic vegetation and
	Dark Surface (A12)		Redox Dep	•	F8)			hydrology must be present.
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	ols (F9)				istributed or problematic
	Layer (if present):							·
Type:	z zayo: (processy:							
Depth (ii	nches):						Hydric Soil I	Present? Yes No No
	pedrock located at 12	2 inches, large	amounts of	lava rock	scattered	d near su		
		, ,						
HYDROLO	OGY							
Wetland H	ydrology Indicators:							
	licators (minimum of o	ne required; chec	k all that app	ly)			Second	dary Indicators (2 or more required)
	e Water (A1)	Γ	Salt Crus				W	ater Marks (B1) (Riverine)
High W	/ater Table (A2)	Ī	Biotic Cru	st (B12)			Se	ediment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic Ir	vertebrate	s (B13)		Dr	ift Deposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Dr	ainage Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized	Rhizosphe	res along	Living Ro	ots (C3) Dr	y-Season Water Table (C2)
🖳	eposits (B3) (Nonriver	ine)	=	of Reduce				ayfish Burrows (C8)
🖳	e Soil Cracks (B6)		=	on Reducti		ed Soils (turation Visible on Aerial Imagery (C9)
=	tion Visible on Aerial II	magery (B7)	⊒	Surface (,			nallow Aquitard (D3)
	Stained Leaves (B9)	L	Other (Ex	plain in Re	marks)		F#	AC-Neutral Test (D5)
Field Obse		es No 💿	Depth (ir	ochee).				
Water Table		es No (•)	Depth (ir	<i>'</i> —				
Saturation I		es No 💿	Depth (ir	· · · ·				
(includes ca	apillary fringe)							Present? Yes O No •
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: The Valley's Edge			City/Co	ounty:Butte		Sar	npling Date:	1-19-15	
Applicant/Owner:B. Brouhard					State: CA	Sar	npling Point	:U69	
Investigator(s): D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 32, T 22N	, R 2E			
Landform (hillslope, terrace, etc.): terra	ce		Local	relief (concave,	convex, none):coi	ıvex	SI	lope (%):3	
Subregion (LRR):C - Mediterranean	 California	Lat:39.7	714091		Long:-121.777	046	 Dat	tum:WGS 8	34
Soil Map Unit Name: Doemill-Jokerst		pes			NWI (classification	n:Upland		
Are climatic / hydrologic conditions on the		•	ear? Ye	es (• No (ain in Rema			
		gnificantly			"Normal Circumsta		,	No (
		iturally pro			eeded, explain any	·		,	
SUMMARY OF FINDINGS - A	, ,, ,,	, ,		`				eatures, e	etc.
Hydrophytic Vegetation Present?		•				· · · · · · · · · · · · · · · · · · ·			
Hydric Soil Present?		•		Is the Sampled	I Area				
Wetland Hydrology Present?	Yes No			within a Wetla		s O	No 💿		
Remarks:									
VEGETATION									
To Oracles (U.S. Scientification)		Absolute		nant Indicator	Dominance Tes	st workshe	et:		
Tree Stratum (Use scientific names.)	% Cover	Specie	es? Status	Number of Dom			0 (4	١,
1. 2.					That Are OBL, F		40.	0 (A	()
3					Total Number of Species Across			3 (B	3)
4					Percent of Domi	nant Specie	es		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, F).0 % (A	/B)
1.					Prevalence Ind	ex workshe	eet:		
2.					Total % Co	ver of:	Multip	ply by:	
3.					OBL species		x 1 =	0	
4.					FACW species	10	x 2 =	20	
5					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	60	x 4 =	240	
Herb Stratum		20	3.7		UPL species	30	x 5 =	150	
1.Bromus hordeaceous		30	Yes	FACU	Column Totals:	100	(A)	410	(B)
2. Erodium botrys 3. Elymus caput medusae		30	Yes Yes	FACU	Prevalenc	e Index = B	/A =	4.10	
4.Blennosperma nanum		10	No	UPL FACW	Hydrophytic Ve	egetation In	dicators:	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
5.Layia fremontii			No	NI	Dominance	_			
6.		10			Prevalence	Index is ≤3.	.0 ¹		
7.								le supporting	j
8.							on a separat	,	
	Total Cover:	100%			- Problemation	Hydrophyti	c vegetation	ı (Explain)	
Woody Vine Stratum 1.					¹ Indicators of hy	/dric soil an	d wetland h	ıydrology mı	ust
2.					be present.				
	Total Cover:	%			Hydrophytic Vegetation				
	0 % Cover 6	of Biotic C	Crust _	<u>%</u>	Present?	Yes C	No (•	
Remarks:									

SOIL Sampling Point: $\underline{\text{U69}}$

Depth Matrix Redox Features Clay loam Clay l	Profile Description: (Describe to the depth needed to document the indicator or confirm	in the absence of in-	uicators.)
O-12 2.5 YR 2.5/3 100 Clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Histosoil (A1) Sandy Redox (S5) Histo: Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Selow Dark Surface (A1) Depleted Below Dark Surface (A1) Thick Dark (A9) (LRR C) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) High Water Table (A2) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dy-Season Water (A1) Dy-Season Water (A1) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Droit Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)		- Toydeino	Domortes
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: D=Coation: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Expisedon (A2) Histic Expisedon (A2) Stripped Matrix (S6) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) D=Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depleted Below Dark Surface (A12) Belot Crust (B11) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Water Matrix (B1) (Riverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 1 cm Muck (A9) (LRR C) 1 cm Muck (A9)			кетагкѕ
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histol (A1) Histol (A2) Histol Epipedon (A2) Black Histol (A3) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	0-12 2.5 YR 2.5/3 100	Clay loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Transport Consentration D. Deplation DM. Reduced Matrix CC. Consend on Control Cond.	2 - 2 - 2 - 2	postion: DL —Poro Lining M—Motriy
Histosol (A1)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. C5=Covered or Coated Sand G	rains Lo	ocation. PL=Pore Lining, M=Matrix.
Histosol (A1)	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Pro	oblematic Hydric Soils: 3
Black Histic (A3)			
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Deplt (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Surface (A12) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B3) (Nonriverine) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Primary Indicators of hydrophytic vegetation and wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No ● No ● Presence of Reduced Iron (C4)	Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck ((A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Sutration (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Nonriverine) Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		<u> </u>	
1 cm Muck (A9) (LRR D)			
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Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		wetland hydr	ology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No No No No Hydric Soil Present? Yes No No No No No No No No		unless distrib	outed or problematic
Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
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Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		= = =	
		(/	· · ·
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)		` ′ 🖳	9 , (
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No (a) Depth (inches):			
Saturation Present? Yes No (Depth (inches):			
(includes capillary fringe) Wetland Hydrology Present? Yes No •	(includes capillary fringe) Wet		sent? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)), if available:	
Remarks:	kemarks:		

Project/Site: The Valley's Edge		City/Coun	ty:Butte		Sam	npling Date: 1	-19-15
Applicant/Owner: B. Brouhard				State: CA	Sam	pling Point:[J70 & 71
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange: S 32, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): terrace		Local reli	ef (concave,	convex, none):conv	vex	Slo	pe (%):3
Subregion (LRR):C - Mediterranean California	Lat:39.7	714091		Long:-121.77704	16	Datu	m:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent s	lopes			NWI cla	assification	:Upland	
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ear? Yes (• No ((If no, explai	n in Remar	ks.)	
Are Vegetation Soil or Hydrology	significantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes	No 🔘
	naturally pr			eeded, explain any a	nswers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map						,	atures etc
Commant of Findings - Attach site map	3110Willig		ig point i	ocations, trans-	, iiii	Jortant 10	
	10 🖲						
	40 (the Sample			6	
Wetland Hydrology Present? Yes Nemarks: This data sheet is to be used as the upland	No (©)		thin a Wetla F 70 and 7			No 🖲	
This data sheet is to be used as the apraira	sumpre po	JIII 101 11	1 /o ana /				
VEGETATION							
Tree Stratum (Use scientific names.)	Absolute	Dominant Species?	Indicator	Dominance Test			
Tree Stratum (Use scientific names.) 1.	76 COVEI	Species:	Status	Number of Domin That Are OBL, FA) (A)
2.	_		_	_		0. 0	(/1)
3.	_	-		 Total Number of I Species Across A 		3	(B)
4.	_			-			(=)
Total Cove	er: %			Percent of Domina That Are OBL, FA			0 % (A/B)
Sapling/Shrub Stratum				Prevalence Index			
1				Total % Cove		et: Multipl	v bv:
3.	_			OBL species	. 01.	x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cove	er: %			FACU species	40	x 4 =	160
Herb Stratum				UPL species	60	x 5 =	300
1.Elymus caput medusae	_ 30	Yes	UPL	Column Totals:	100	(A)	460 (B)
2.Erodium botrys	_ 25	Yes	FACU	Prevalence	Index = B/	A =	4.60
3.Festuca sp. 4.Dodecatheon clevelandii ssp. patulum	$-\frac{20}{10}$	Yes No	Not Listed Not Listed	Hydrophytic Veg			1.00
5.Bromus hordeaceous	$-\frac{10}{15}$	No	FACU	Dominance T			
6.		-110		Prevalence Ir	ndex is ≤3.0) ¹	
7.				Morphologica	l Adaptatio	ns¹ (Provide	supporting
8.						n a separate	*
Total Cove	er: 100 %			Problematic F	Hyaropnytic	vegetation	(Explain)
Woody Vine Stratum				¹ Indicators of hyd	ric soil and	d wetland hy	drology must
1				be present.	no son and	a welland my	arology mast
Total Cove				Hydrophytic			
				Vegetation		0	
	er of Biotic C	rust	<u>%</u>	Present?	Yes 🔘	No 🖲)
Remarks:							

SOIL Sampling Point: $\underline{\text{U70 \& 71}}$

Depth Matrix Redox Features Clay loam Clay l	Profile Description: (Describe to the depth needed to document the indicator or confirm	in the absence of in-	uicators.)
O-12 2.5 YR 2.5/3 100 Clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Histosoil (A1) Sandy Redox (S5) Histo: Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Selow Dark Surface (A1) Depleted Below Dark Surface (A1) Thick Dark (A9) (LRR C) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) High Water Table (A2) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dy-Season Water (A1) Dy-Season Water (A1) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Droit Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)		- Toydeino	Domortes
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: D=Coation: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Expisedon (A2) Histic Expisedon (A2) Stripped Matrix (S6) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) D=Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depleted Below Dark Surface (A12) Belot Crust (B11) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Water Matrix (B1) (Riverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 1 cm Muck (A9) (LRR C) 1 cm Muck (A9)			кетагкѕ
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histol (A1) Histol (A2) Histol Epipedon (A2) Black Histol (A3) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	0-12 2.5 YR 2.5/3 100	Clay loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Transport Consentration D. Deplation DM. Reduced Matrix CC. Consend on Control Cond.	2 - 2 - 2 - 2	postion: DL – Poro Lining, M–Motriy
Histosol (A1)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. C5=Covered or Coated Sand G	rains Lo	ocation. PL=Pore Lining, M=Matrix.
Histosol (A1)	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Pro	oblematic Hydric Soils: 3
Black Histic (A3)			
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Deplt (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Surface (A12) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B3) (Nonriverine) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Primary Indicators of hydrophytic vegetation and wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No ● No ● Presence of Reduced Iron (C4)	Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck ((A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Sutration (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Nonriverine) Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		<u> </u>	
1 cm Muck (A9) (LRR D)			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Avairace (A12) Redox Depressions (F8) Vernal Pools (F9) Vernal Pools (F9) Wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No Present? Yes No Avairace (A12) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Sufface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		U Other (Expla	ain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present. Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation. Indicators of hydrophytic vegetation. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation. Indicators of hydrophytic vege			
Sandy Mucky Mineral (S1)		3 Indicators of hy	drophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		wetland hydr	ology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No No No No Hydric Soil Present? Yes No No No No No No No No		unless distrib	outed or problematic
Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Trift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Type:		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Depth (inches):	Hydric Soil Pres	ent? Yes ○ No ●
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near su	urface	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Sediment Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	HYDROLOGY		
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		Secondary	Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			, , , , , , , , , , , , , , , , , , , ,
Water Marks (B1) (Nonriverine)			
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			. , , , ,
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		= = =	
		(/	· · ·
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)		` ′ 🖳	9 , (
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No (a) Depth (inches):			
Saturation Present? Yes No (Depth (inches):			
(includes capillary fringe) Wetland Hydrology Present? Yes No •	(includes capillary fringe) Wet		sent? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)), if available:	
Remarks:	kemarks:		

Project/Site: The Valley's Edge			City/Cour	ity:Butte		Sam	npling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	npling Point:	J72	
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrace	 e		Local reli	ef (concave,	convex, none):conv	vex .	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	16	 Datu	m:WGS 84	4
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the		•	ear? Yes	No (
			disturbed		"Normal Circumstan		,	No C	5
			oblematic?		eeded, explain any a	•			
	<u> </u>			`	, ,		,	oturos o	40
SUMMARY OF FINDINGS - Att	acii site iliap si	nowing	Sampii	ng point i	ocations, transi	ecis, iiii	Jortani ied	itures, e	ic.
Hydrophytic Vegetation Present?									
Hydric Soil Present?		•		the Sample					
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 💿		
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Dominan Species	t Indicator Status	Dominance Test				
1.	<u></u>	70 00701	Орсою	<u> </u>	Number of Domin That Are OBL, FA			(A))
2.			-		-		0	()	
3.					 Total Number of I Species Across A 		4	(B))
4.					Percent of Domin		2	,	
0 1: (0) 1 0: (Total Cover:	%			That Are OBL, FA			0 % (A/I	B)
Sapling/Shrub Stratum					Prevalence Index	v worksho	ot:		
1. 2.					Total % Cove		et. Multipl	v hv:	
3.				-	OBL species	. 01.	x 1 =	0	
4.					FACW species		x 2 =	0	
5.				_	FAC species		x 3 =	0	
	Total Cover:	%	_		FACU species	50	x 4 =	200	
Herb Stratum					UPL species	50	x 5 =	250	
1.Elymus caput medusae		30	Yes	UPL	Column Totals:	100	(A)	450	(B)
2.Centaurea solstitialis		20	Yes	Not Listed	Prevalence	Index - B/	Δ –	4.50	
3.Bromus hordeaceous		20	Yes	FACU	Hydrophytic Veg			4.50	
4.Erodium botrys 5.Trichostema lanceolatum		25 5	Yes	FACU FACU	Dominance T				
6.				- FACU	Prevalence Ir				
7.					Morphologica	l Adaptatio	ns¹ (Provide	supporting	
8.							n a separate		
	Total Cover:	100%			Problematic I	Hydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum		100 %			1				
1				-	¹ Indicators of hyd be present.	ric soil and	d wetland hy	drology mu	st
2	Total Cover:	%		_	Hydrophytic				
% Bare Ground in Herb Stratum 0	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 🗨)	
Remarks:									

SOIL Sampling Point: U72

Profile Description: (Describe to the depth needed to docum	nent the indicator	or confirm the	absence of i	ndicators.)
	Features Type ¹			
(inches) Color (moist) % Color (moist)	Loc ²	<u>Texture</u>	Remarks Remarks	
0-12 2.5 YR 2.5/3 100		Clay	y loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS:	=Covered or Coate	ed Sand Grains	2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise				Problematic Hydric Soils: 3
Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mat	, ,	[<pre>< (A9) (LRR C)</pre> < (A10) (LRR B)
	ky Mineral (F1)	[Vertic (F18)
	ed Matrix (F2)	[nt Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Ma		[plain in Remarks)
	Surface (F6)	·		,
Depleted Below Dark Surface (A11) Depleted Da	ark Surface (F7)	_	La d'a ataux at la	ordere by the consistence and
Thick Dark Surface (A12) Redox Depre	essions (F8)	3		hydrophytic vegetation and drology must be present.
Sandy Mucky Mineral (S1) Vernal Pools	s (F9)		-	
Sandy Gleyed Matrix (S4)			uriless disti	ributed or problematic
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Н	ydric Soil Pre	esent? Yes No No
Remarks: bedrock located at 12 inches, large amounts of la	ava rock scattere	d near surfac	e	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required; check all that apply	Λ		Secondar	y Indicators (2 or more required)
	•			er Marks (B1) (Riverine)
	` '			ment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust Caturation (A2)				Deposits (B3) (Riverine)
	rertebrates (B13)			age Patterns (B10)
	Sulfide Odor (C1)	Living Doots (= -	Season Water Table (C2)
	hizospheres along		- / Ш	` ,
	of Reduced Iron (C n Reduction in Plov	,	=	ish Burrows (C8)
	ved Solis (Co)		ration Visible on Aerial Imagery (C9)	
	Surface (C7)			ow Aquitard (D3)
	lain in Remarks)			Neutral Test (D5)
Field Observations:	.la = = \.			
Surface Water Present? Yes No Depth (inc	· ———			
Water Table Present? Yes No Depth (incl				
Saturation Present? Yes No Depth (includes capillary fringe)	:hes):	Wetland	Hydrology Pr	resent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous ins			
	•	,-		
Remarks:				

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J73	
Investigator(s):D. Machek, E. Gregg			Section, 7	ownship, Ra	ange:S 32, T 22N,	R 2E	_		
Landform (hillslope, terrace, etc.): terrac	e		Local reli	ef (concave,	convex, none):conv	ex	Slo	pe (%):3	
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	714091		Long:-121.77704	16	Datu	m:WGS	84
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (• No((If no, explai	n in Remar	 ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No	\circ
	- =		oblematic?		eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att					ocations, trans	ects, imp	ortant fe	atures,	etc.
		•	<u> </u>		·				
Hydrophytic Vegetation Present? Hydric Soil Present?		•	le :	the Sample	1 Area				
Wetland Hydrology Present?	_	•		thin a Wetla		\circ	No 💿		
Remarks:			701	illill a vvetia	iiu: 165		140 (3)		
VEGETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshoo	t -		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1			_		That Are OBL, FA			((A)
2					Total Number of D	Dominant			
3					Species Across A		3		(B)
4					Percent of Domin	ant Specie	8		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.	0 % ((A/B)
1.					Prevalence Index	k workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	_
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Llorb Ctrotum	Total Cover:	%			FACU species	35	x 4 =	140	
Herb Stratum 1 Flymus caput medusas		30	Yes	UPL	UPL species	65	x 5 =	325	
1.Elymus caput medusae 2.Erodium botrys		20	Yes	FACU	Column Totals:	100	(A)	465	(B)
3. Centaurea solstitialis		30	Yes	Not Listed	Prevalence	Index = B/	A =	4.65	
4. Bromus hordeaceous		15	No	FACU	Hydrophytic Veg	etation Inc	dicators:		
5.Layia fremontii		5	No	NI	Dominance T	est is >50%	6		
6.					Prevalence Ir	ndex is ≤3.0) ¹		
7.			-		Morphologica	l Adaptatio	ns ¹ (Provide	supportin	ng
8.					- data in Re		n a separate		١
We also Vise Otto to a	Total Cover:	100%			- D Problematic i	тушторпуш	vegetation	(Explain))
Woody Vine Stratum					¹ Indicators of hyd	ric soil and	d wetland hv	drology r	nust
1. 2.					be present.	no son and	wonana ny	arology II	naot
2	Total Cover:	%		-,	Hydrophytic				
% Bare Ground in Herb Stratum $_$	% Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 🖲)	
Remarks:					1				

SOIL Sampling Point: U73

Depth Matrix Redox Features Clay loam Clay l	Profile Description: (Describe to the depth needed to document the indicator or confirm	in the absence of in-	uicators.)
O-12 2.5 YR 2.5/3 100 Clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Histosoil (A1) Sandy Redox (S5) Histo: Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Selow Dark Surface (A1) Depleted Below Dark Surface (A1) Thick Dark (A9) (LRR C) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) High Water Table (A2) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dy-Season Water (A1) Dy-Season Water (A1) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Droit Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)		- Toydeino	Domortes
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: D=Coation: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Expisedon (A2) Histic Expisedon (A2) Stripped Matrix (S6) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) D=Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depleted Below Dark Surface (A12) Belot Crust (B11) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Water Matrix (B1) (Riverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 1 cm Muck (A9) (LRR C) 1 cm Muck (A9)			кетагкѕ
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histol (A1) Histol (A2) Histol Epipedon (A2) Black Histol (A3) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	0-12 2.5 YR 2.5/3 100	Clay loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
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Histosol (A1)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. C5=Covered or Coated Sand G	rains Lo	ocation. PL=Pore Lining, M=Matrix.
Histosol (A1)	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Pro	oblematic Hydric Soils: 3
Black Histic (A3)			
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Deplt (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Surface (A12) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B3) (Nonriverine) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Primary Indicators of hydrophytic vegetation and wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No ● No ● Presence of Reduced Iron (C4)	Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck ((A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Sutration (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Nonriverine) Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		<u> </u>	
1 cm Muck (A9) (LRR D)			
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Sandy Mucky Mineral (S1)		3 Indicators of hy	drophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		wetland hydr	ology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No No No No Hydric Soil Present? Yes No No No No No No No No		unless distrib	outed or problematic
Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Trift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Type:		
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Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near su	urface	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Sediment Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	HYDROLOGY		
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		Secondary	Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			, , , , , , , , , , , , , , , , , , , ,
Water Marks (B1) (Nonriverine)			
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			. , , , ,
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		= = =	
		(/	· · ·
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)		` ′ 🖳	9 , (
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No (a) Depth (inches):	, ,		
Saturation Present? Yes No (Depth (inches):			
(includes capillary fringe) Wetland Hydrology Present? Yes No •	(includes capillary fringe) Wet		sent? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)), if available:	
Remarks:	kemarks:		

Project/Site: The Valley's Edge		City/Count	y:Butte		Samp	ling Date:1-	19-15
Applicant/Owner: B. Brouhard				State:CA	— Sampi	ling Point:U7	74 & 75
Investigator(s):D. Machek, E. Gregg		Section, To	ownship, Rar	nge:S 32, T 22N, R	 2E		
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave, o	convex, none):convex	ζ.	Slope	e (%):3
Subregion (LRR):C - Mediterranean California	Lat:39.7	714091		Long:-121.777046		 Datum	n:WGS 84
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	opes			NWI class	sification:U	 J pland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	No C	(If no, explain ir	n Remarks	3.)	
Are Vegetation Soil or Hydrology si	ignificantly	disturbed?	Are "	Normal Circumstances	s" present	? Yes 💿	No 🔘
Are Vegetation Soil or Hydrology na	aturally pro	oblematic?	(If ne	eded, explain any ans	wers in Re	emarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point lo	cations, transec	ts, impo	ortant feat	tures, etc.
Hydrophytic Vegetation Present? Yes No	o (iii)						
	•	ls t	he Sampled	Area			
, 3,	•		hin a Wetlan) N	lo 💿	
Remarks: This data sheet is to be used as the upland s	sample po	oint for W	F 74 and 75	5.			
VECETATION							
VEGETATION	A l l (-	D	La Parter	D T			
	Absolute % Cover	Dominant Species?		Dominance Test wo			
1.				Number of Dominant That Are OBL, FACV		0	(A)
2.				Total Number of Dor	minant		
3.				Species Across All S		4	(B)
4.				Percent of Dominant	t Species		
Total Cover	: %			That Are OBL, FACV		0.0	% (A/B)
Sapling/Shrub Stratum 1.				Prevalence Index w	vorksheet		
2.				Total % Cover o		 Multiply	by:
3.				OBL species		x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cover:	%			FACU species	40	x 4 =	160
Herb Stratum				UPL species	60	x 5 =	300
1.Elymus caput medusae	30	Yes	UPL	Column Totals:	100	(A)	460 (B)
2-Centaurea solstitialis	30	Yes	Not Listed	Prevalence Ind	dex = R/A	_	4.60
3.Bromus hordeaceous	20	Yes Yes	FACU	Hydrophytic Vegeta			4.00
4.Erodium botrys 5.		1 es	FACU	Dominance Test			
6.				Prevalence Inde			
7.				Morphological A	daptations	s¹ (Provide s	upporting
8.				data in Rema			•
Total Cover:	100%			Problematic Hyd	drophytic \	/egetation1 (Explain)
Woody Vine Stratum	100%			1			
1				Indicators of hydric be present.	soil and v	wetland hydi	rology must
2							
Total Cover:	: %			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum % Cover	of Biotic C	crust	%		Yes 🔘	No 💿	
Remarks:				I			

SOIL Sampling Point: U74 & 75

Profile Description: (Describe to the depth needed to docum	nent the indicator	or confirm the	absence of i	ndicators.)
	Features Type ¹			
(inches) Color (moist) % Color (moist)	Loc ²	<u>Texture</u>	Remarks	
0-12 2.5 YR 2.5/3 100		Clay	y loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS:	=Covered or Coate	ed Sand Grains	2	Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise				Problematic Hydric Soils: 3
Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mat	, ,	[<pre>< (A9) (LRR C)</pre> < (A10) (LRR B)
	ky Mineral (F1)	[Vertic (F18)
	ed Matrix (F2)	[nt Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Ma		[plain in Remarks)
	Surface (F6)	·		,
Depleted Below Dark Surface (A11) Depleted Da	ark Surface (F7)	_	La d'a ataux at la	ordere by the consistence and
Thick Dark Surface (A12) Redox Depre	essions (F8)	3		hydrophytic vegetation and drology must be present.
Sandy Mucky Mineral (S1) Vernal Pools	s (F9)		-	
Sandy Gleyed Matrix (S4)			uriless disti	ributed or problematic
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Н	ydric Soil Pre	esent? Yes No No
Remarks: bedrock located at 12 inches, large amounts of la	ava rock scattere	d near surfac	e	
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required; check all that apply	Λ		Secondar	y Indicators (2 or more required)
	•			er Marks (B1) (Riverine)
	` '			ment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust Caturation (A2)				Deposits (B3) (Riverine)
	rertebrates (B13)			age Patterns (B10)
	Sulfide Odor (C1)	Living Doots (= -	Season Water Table (C2)
	hizospheres along		- / Ш	` ,
	of Reduced Iron (C n Reduction in Plov	,	=	ish Burrows (C8)
	ved Solis (Co)		ration Visible on Aerial Imagery (C9)	
	Surface (C7)			ow Aquitard (D3)
	lain in Remarks)			Neutral Test (D5)
Field Observations:	.la = = \.			
Surface Water Present? Yes No Depth (inc	· ———			
Water Table Present? Yes No Depth (incl				
Saturation Present? Yes No Depth (includes capillary fringe)	:hes):	Wetland	Hydrology Pr	resent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous ins			
	•	,-		
Remarks:				

Project/Site: The Valley's Edge			City/Co	ounty:Butte		Sam	npling Date:	1-19-15	
Applicant/Owner: B. Brouhard					State: CA	Sam	pling Point:	U76	
Investigator(s):D. Machek, E. Gregg			Section	n, Township, Ra	nge:S 32, T 22N,	R 2E	-		
Landform (hillslope, terrace, etc.): terrace	2		Local	relief (concave,	convex, none):conv	/ex	Sk	ope (%):3	
Subregion (LRR):C - Mediterranean Ca	alifornia	Lat:39.7	714091		Long:-121.77704	46	 Dat	um:WGS	84
Soil Map Unit Name: Doemill-Jokerst,		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	*	•	ar? Ye	es (• No (
		gnificantly			"Normal Circumstan		,	No	\bigcirc
		aturally pro			eeded, explain any a	•			
SUMMARY OF FINDINGS - Atta	о, <u> </u>	, ,		`				eatures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No	•		Is the Sampled	I Area				
Wetland Hydrology Present?	Yes No	•		within a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.) 1.		Absolute % Cover		nant Indicator es? Status	Number of Domin That Are OBL, FA	ant Specie	S	0	(A)
2					Total Number of I Species Across A	Dominant		3	(B)
4.					Percent of Domin				
Ocalia e/Oharib Otastasa	Total Cover	%			That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum 1.					Prevalence Inde	v worksho	ot-		
2.					Total % Cove			oly by:	
3.					OBL species		x 1 =	0	
4.				·	FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	40	x 4 =	160	
Herb Stratum					UPL species	60	x 5 =	300	
1. Elymus caput medusae		25	Yes	UPL	Column Totals:	100	(A)	460	(B)
2 Erodium botrys		30	Yes	FACU	Prevalence	Index = B/	Α =	4.60	
3. Festuca sp. 4. Bromus hordeaceous		25	Yes	Not Listed	Hydrophytic Veg			4.00	
5. Dodecatheon clevelandii ssp. pat		$\frac{10}{10}$	No No	FACU Not Listed	Dominance T				
6.	utum		110	Not Listed	Prevalence Ir				
7.					Morphologica data in Re		ns¹ (Provide n a separate		ng
8	Total Cover:	100%			Problematic I	Hydrophytic	: Vegetation	ı¹ (Explain)
Woody Vine Stratum 1.		100 /0			¹ Indicators of hydbe be present.	Iric soil and	d wetland h	ydrology r	must
2					-				
% Bare Ground in Herb Stratum 0	Total Cover: % Cover		Crust	%	Hydrophytic Vegetation Present?	Yes 〇	No (•	
Remarks:			_						

SOIL Sampling Point: $\underline{U76}$

Depth Matrix Redox Features Clay loam Clay l	Profile Description: (Describe to the depth needed to document the indicator or confirm	in the absence of in-	uicators.)
O-12 2.5 YR 2.5/3 100 Clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1) Histosoil (A1) Sandy Redox (S5) Histo: Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Selow Dark Surface (A1) Depleted Below Dark Surface (A1) Thick Dark (A9) (LRR C) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Below Dark Surface (A1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) High Water Table (A2) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dy-Season Water (A1) Dy-Season Water (A1) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Droit Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)		- Toydeino	Domortes
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: C=Concentration, D=Depletion, RM=Reduced Matrix. CS=Covered or Coated Sand Grains Type: D=Coation: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Expisedon (A2) Histic Expisedon (A2) Stripped Matrix (S6) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) D=Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depleted Below Dark Surface (A12) Belot Crust (B11) Surface Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Salt Crust (B12) Salt Crust (B13) Water Matrix (B1) (Riverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Pressence of Reduced Iron (C4) Indicators for Problematic Hydric Soils: Indicators for Problematic Hydric Soils: 1 cm Muck (A9) (LRR C) 1 cm Muck (A9)			кетагкѕ
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histol (A1) Histol (A2) Histol Epipedon (A2) Black Histol (A3) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F6) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Redox Dark Surface (F6) Depleted Bloov Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	0-12 2.5 YR 2.5/3 100	Clay loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos (A1) Histos (A2) Sandy Redox (S5) Histos (Epipedon (A2) Stripped Matrix (S6) Black Histos (A3) Loarny Mucky Mineral (F1) Bydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Bow Dark Surface (A12) Redox Dark Surface (F6) Depleted Bow Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Mucky Mineral (S1) Sandy Fresent): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Salt Crust (B11) Salt Crust (B11) Saturation (A3) Water Marks (B1) (Nonriverine) Mater Marks (B1) (Nonriverine) Depleted Selved Nonriverine) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Transport Consentration D. Deplation DM. Reduced Matrix CC. Consend on Control Cond.	2 - 2 - 2 - 2 - 2	postion: DL —Poro Lining M—Motriy
Histosol (A1)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix. C5=Covered or Coated Sand G	rains Lo	ocation. PL=Pore Lining, M=Matrix.
Histosol (A1)	Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Pro	oblematic Hydric Soils: 3
Black Histic (A3)			
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Deplt (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No ● No ● No Surface Water (A1) Surface (A12) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Water Marks (B3) (Nonriverine) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Red Parent Material (TF2) Other (Explain in Remarks) I commarks: Primary Indicators of hydrophytic vegetation and wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No ● No ● Presence of Reduced Iron (C4)	Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck ((A10) (LRR B)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Sutration (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Nonriverine) Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		<u> </u>	
1 cm Muck (A9) (LRR D)			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No Avairace (A12) Redox Depressions (F8) Vernal Pools (F9) Vernal Pools (F9) Wetland hydrology must be present. unless distributed or problematic Hydric Soil Present? Yes No Present? Yes No Avairace (A12) Secondary Indicators (2 or more required) Surface Water (A1) Salt Crust (B11) Sufface Water (A1) Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		U Other (Expla	ain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present. Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation. Indicators of hydrophytic vegetation. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation. Indicators of hydrophytic vege			
Sandy Mucky Mineral (S1)		3 Indicators of hy	drophytic vegetation and
Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type:		wetland hydr	ology must be present.
Restrictive Layer (if present): Type: Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface Hydric Soil Present? Yes No No No No Hydric Soil Present? Yes No No No No No No No No		unless distrib	outed or problematic
Depth (inches): Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near surface HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Trift Deposits (B2) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Type:		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Depth (inches):	Hydric Soil Pres	ent? Yes ○ No ●
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	Remarks: bedrock located at 12 inches, large amounts of lava rock scattered near su	urface	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Sediment Deposits (B3) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)	HYDROLOGY		
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Salt Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Riverine) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Water Marks (B1) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		Secondary	Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Riverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Drift Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			
Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			, , , , , , , , , , , , , , , , , , , ,
Water Marks (B1) (Nonriverine)			
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Crayfish Burrows (C8)			. , , , ,
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)		= = =	
		(/	· · ·
Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)		` ′ 🖳	9 , (
Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)			
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No (a) Depth (inches):	, ,		
Saturation Present? Yes No (Depth (inches):			
(includes capillary fringe) Wetland Hydrology Present? Yes No •	(includes capillary fringe) Wet		sent? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)), if available:	
Remarks:	kemarks:		

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J 77	
Investigator(s): D. Machek, E. Gregg			Section, 7	ownship, Ra	ange:S 4, T 21N, R	2E			
Landform (hillslope, terrace, etc.): terrace	:е		Local reli	ef (concave,	convex, none): none	e	Slo	pe (%):2	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	710738		Long:-121.76468	32	Datu	m:WGS	84
Soil Map Unit Name: Clearhayes-Ham	slough, 0 to 2 per	cent slop	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplii	ng point l	ocations, trans	ects, imp	ortant fe	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
120217(1101)		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1				_	That Are OBL, FA	CW, or FA	C: 0		(A)
2					Total Number of [Dominant			
3					Species Across A	II Strata:	3		(B)
4					Percent of Domin				
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.	0 % ((A/B)
1.					Prevalence Inde	x workshe	et:		
2.					Total % Cove	er of:	Multipl	y by:	
3.					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5				-	FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species UPL species	25	x 4 =	100	
1.Elymus caput medusae		45	Yes	UPL		75	x 5 =	375	(D)
2. Erodium botrys		25	Yes	FACU	Column Totals:	100	(A)	475	(B)
3. Agoseris heterophylla		10	No	Not Listed	Prevalence			4.75	
4. Festuca sp.		20	Yes	Not Listed	Hydrophytic Veg				
5.					Dominance T				
6					Prevalence Ir				
7					Morphologica data in Re	al Adaptation	ns: (Provide n a separate	supportir sheet)	ng
8					Problematic I)
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hydbe present.	Iric soil and	d wetland hy	drology n	nust
2				_	-				
	Total Cover:	%			Hydrophytic Vegetation				
	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🖲)	
Remarks:					_				

SOIL Sampling Point: U77

Profile De	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-12	5 YR 3/4	_100					Cobbly clay loam					
								-				
	_							-				
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
	, ,	•										
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histos	ol (A1)		Sandy Redo	x (S5)				k (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)				
	Histic (A3)		Loamy Mud	•	. ,			Vertic (F18)				
	gen Sulfide (A4)		Loamy Gle	•	(F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(FC)		Other (Ex	plain in Remarks)				
	Muck (A9) (LRR D) ed Below Dark Surface	\((() () () ()	Redox Dark		` '							
	Dark Surface (A12)	(A11)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and				
	Mucky Mineral (S1)	<u> </u>	Vernal Poo	,	10)		wetland hy	drology must be present.				
	Gleyed Matrix (S4)	L	_ voinai i oo	10 (1 0)			unless distributed or problematic					
	e Layer (if present):											
Type:												
Depth (i	inches):						Hydric Soil Pr	esent? Yes No 💿				
Remarks:												
HYDROL												
	lydrology Indicators:											
	dicators (minimum of or	ne required; chec	ck all that appl	y)				ry Indicators (2 or more required)				
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)				
High V	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)				
Satura	ition (A3)		Aquatic In	vertebrate	es (B13)			Deposits (B3) (Riverine)				
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)			nage Patterns (B10)				
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosphe	res along	Living Roo		Season Water Table (C2)				
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	ł)	Cray	fish Burrows (C8)				
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)				
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface ((C7)		Shal	low Aquitard (D3)				
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC	-Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):								
Water Tab	le Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		18/-41	and Hudnalani D	wasanta Vas C Na G				
	apillary fringe) Recorded Data (stream	gauge monitorin	na well serial	nhotoe pr	evious inc		and Hydrology P	resent? Yes O No •				
Describe K	recoluen Dala (Silediii	gauge, monitorii	ig weii, aerial	ριτυιυδ, βΙ	evious iils	p c ulul18),	ii avaiiable.					
Remarks:												
nemarks.												
I												

Project/Site: The Valley's Edge	unty:Butte	Sampling Date:1-19-15					
Applicant/Owner: B. Brouhard				State:CA	— Sar	npling Point:U	 J 7 8
Investigator(s):D. Machek, E. Gregg		Section	n, Township, Ra	nge:S 4, T 21N, R 2	E	_	
Landform (hillslope, terrace, etc.): fan terrace		Local r	elief (concave,	convex, none):none		Slo	pe (%):1
Subregion (LRR):C - Mediterranean California	Lat:39.7	710738		Long:-121.764682		 Datu	m:WGS 84
Soil Map Unit Name: Clearhayes-Hamslough, 0 to 2 per	rcent slop	es		NWI clas	sificatior	n:Upland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Ye	s (• No ((If no, explain i	n Rema	rks.)	
Are Vegetation Soil or Hydrology si	gnificantly	disturbe	ed? Are '	'Normal Circumstance	s" prese	ent? Yes	No 🔘
Are Vegetation Soil or Hydrology na	aturally pro	oblemati	ic? (If ne	eeded, explain any ans	wers in	Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samp	ling point lo	ocations, transec	ts, im	portant fea	atures, etc.
Hydrophytic Vegetation Present? Yes No							
	•		Is the Sampled	l Area			
Wetland Hydrology Present? Yes No	•		within a Wetlar		\circ	No 💿	
Remarks:							
VEGETATION							
VEGETATION	A1 1 .						
	Absolute % Cover		ant Indicator es? Status	Dominance Test w			
1.				Number of Dominar That Are OBL, FAC			(A)
2.				Total Number of Do	minant		
3.				Species Across All		4	. (B)
4.				Percent of Dominan	t Specie	26	
Total Cover Sapling/Shrub Stratum	: %			That Are OBL, FAC			0 % (A/B)
Sapinig/Siriub Stratum 1.				Prevalence Index v	vorkshe	et.	
2.				Total % Cover		Multipl	v bv:
3.				OBL species		x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cover:	%			FACU species	50	x 4 =	200
Herb Stratum				UPL species	50	x 5 =	250
1. Bromus hordeaceous	25	Yes	FACU	Column Totals:	100	(A)	450 (B)
2. Erodium botrys	25	Yes	FACU	Prevalence In	dov – P	/Λ _	4.50
3.Centaurea solstitialis	25	Yes	Not Listed	Hydrophytic Veget			4.30
4-Elymus caput medusae		Yes	UPL	Dominance Tes			
5.Agoseris heterophylla 6.	5	No	Not Listed	Prevalence Inde			
7.				Morphological A			supportina
8.						on a separate	
Total Cover:	100%			Problematic Hy	drophyti	c Vegetation ¹	(Explain)
Woody Vine Stratum	100%						
1				¹ Indicators of hydric be present.	; soil an	d wetland hy	drology must
2				-			
Total Cover:	%			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0 % Cover	of Biotic C	Crust _	%_	Present?	Yes 🔘	No 💽	<u>'</u>)
Remarks:				1			

SOIL Sampling Point: $\underline{U78}$

Profile De	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-12	5 YR 3/4	_100					Cobbly clay loam					
								-				
	_							-				
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
	, ,	•										
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histos	ol (A1)		Sandy Redo	x (S5)				k (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)				
	Histic (A3)		Loamy Mud	•	. ,			Vertic (F18)				
	gen Sulfide (A4)		Loamy Gle	•	(F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(FC)		Other (Ex	plain in Remarks)				
	Muck (A9) (LRR D) ed Below Dark Surface	\((() () () ()	Redox Dark		` '							
	Dark Surface (A12)	(A11)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and				
	Mucky Mineral (S1)	<u> </u>	Vernal Poo	,	10)		wetland hy	drology must be present.				
	Gleyed Matrix (S4)	L	_ voinai i oo	10 (1 0)			unless distributed or problematic					
	e Layer (if present):											
Type:												
Depth (i	inches):						Hydric Soil Pr	esent? Yes No 💿				
Remarks:												
HYDROL												
	lydrology Indicators:											
	dicators (minimum of or	ne required; chec	ck all that appl	y)				ry Indicators (2 or more required)				
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)				
High V	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)				
Satura	ition (A3)		Aquatic In	vertebrate	es (B13)			Deposits (B3) (Riverine)				
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)			nage Patterns (B10)				
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosphe	res along	Living Roo		Season Water Table (C2)				
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	ł)	Cray	fish Burrows (C8)				
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)				
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface ((C7)		Shal	low Aquitard (D3)				
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC	-Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):								
Water Tab	le Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		18/-41	and Hudnalani D	wasanta Vas C Na G				
	apillary fringe) Recorded Data (stream	gauge monitorin	na well serial	nhotoe pr	evious inc		and Hydrology P	resent? Yes O No •				
Describe K	recoluen Dala (Silediii	gauge, monitorii	ig weii, aerial	ριτυιυδ, βΙ	evious iils	p c ulul18),	ii avaiiable.					
Remarks:												
nemarks.												
I												

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:[J 7 9	
Investigator(s):D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 4, T 21N, R	2E	_		
Landform (hillslope, terrace, etc.): fan te	rrace		Local reli	ef (concave,	convex, none):none	;	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	710738		Long:-121.76468	32	 Datu	m:WGS	84
Soil Map Unit Name: Clearhayes-Ham		ent slor	oes		assification	:Upland			
Are climatic / hydrologic conditions on th				No (
			disturbed		"Normal Circumstan		,	No (\circ
	=		oblematic?		eeded, explain any a	·			
SUMMARY OF FINDINGS - Att	<u> </u>						,	oturos	oto
SUMMART OF FINDINGS - AU	lach site map si	lowing	Sampin	ng point i	ocations, transe	ecis, iiiip	Jortani ie	atures,	elc.
Hydrophytic Vegetation Present?	Yes No								
Hydric Soil Present?	Yes No	_	Is	the Sample	d Area				
Wetland Hydrology Present? Remarks:	Yes No	•	wi	thin a Wetla	nd? Yes	0	No 💿		
Nomano.									
VEGETATION									
		bsolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)		% Cover	Species?	Status_	Number of Domin				(A)
1					That Are OBL, FA	CW, or FA	C: 0	((A)
2					Total Number of D		2	,	(D)
4.					Species Across A	ii Strata:	3	((B)
	Total Cover:	%			Percent of Domina That Are OBL, FA			0 % (Λ/D)
Sapling/Shrub Stratum	Total Gover.	/0			Tilat Ale OBL, FA	CVV, OI FA	0.0	0 % (A/B)
1					Prevalence Index		et:		
2				_	Total % Cove	r of:	Multipl		
3					OBL species		x 1 =	0	
4					FACW species	-	x 2 =	0	
5	Total Covers	0/		_	FAC species FACU species	5 45	x 3 = x 4 =	15 180	
Herb Stratum	Total Cover:	%			UPL species	50	x 5 =	250	
1.Erodium botrys		20	Yes	FACU	Column Totals:	100	(A)	445	(B)
2. Elymus caput medusae	-	30	Yes	UPL	_ Coldillii Totals.	100	(14)		(5)
3. Agoseris heterophylla		10	No	Not Listed	Prevalence			4.45	
4. Hordeum marinum ssp. gussoned	anum	5	No	FAC	Hydrophytic Veg				
5. Layia fremontii		10	No	NI	Dominance T				
6.Bromus hordeaceous		25	Yes	FACU	Prevalence Ir				
7					Morphologica data in Re	n Adaptation	ns" (Provide n a separate	supportin	ıg
8					Problematic F)
Woody Vine Stratum	Total Cover:	100%					-	, , ,	
1					¹ Indicators of hyd	ric soil and	d wetland hy	drology n	nust
2.					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	% % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 🖲)	
Remarks:									
İ									

SOIL Sampling Point: U79

Profile De	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)				
Depth	Matrix			x Features								
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks				
0-12	5 YR 3/4	_100					Cobbly clay loam					
								-				
	_							-				
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.				
	, ,	•										
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histos	ol (A1)		Sandy Redo	x (S5)				k (A9) (LRR C)				
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)				
	Histic (A3)		Loamy Mud	•	. ,			Vertic (F18)				
	gen Sulfide (A4)		Loamy Gle	•	(F2)			nt Material (TF2)				
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(FC)		Other (Ex	plain in Remarks)				
	Muck (A9) (LRR D) ed Below Dark Surface	\((() () () ()	Redox Dark		` '							
	Dark Surface (A12)	(A11)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and				
	Mucky Mineral (S1)	<u> </u>	Vernal Poo	,	10)		wetland hy	drology must be present.				
	Gleyed Matrix (S4)	L	_ voinai i oo	10 (1 0)			unless distributed or problematic					
	e Layer (if present):											
Type:												
Depth (i	inches):						Hydric Soil Pr	esent? Yes No 💿				
Remarks:												
HYDROL												
	lydrology Indicators:											
	dicators (minimum of or	ne required; chec	ck all that appl	y)				ry Indicators (2 or more required)				
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)				
High V	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)				
Satura	ition (A3)		Aquatic In	vertebrate	es (B13)			Deposits (B3) (Riverine)				
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)			nage Patterns (B10)				
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosphe	res along	Living Roo		Season Water Table (C2)				
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	ł)	Cray	fish Burrows (C8)				
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)				
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface ((C7)		Shal	low Aquitard (D3)				
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC	-Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):								
Water Tab	le Present? Ye	es O No 💿	Depth (in	ches):								
Saturation		es O No 💿	Depth (in	ches):		18/-41	and Hudnalani D	wasanta Vas C Na G				
	apillary fringe) Recorded Data (stream	gauge monitorin	na well serial	nhotoe pr	evious inc		and Hydrology P	resent? Yes O No •				
Describe K	recoluen Dala (Silediii	gauge, monitorii	ig weii, aerial	ριτυιυδ, βΙ	evious iils	p c ulul18),	ii avaiiable.					
Remarks:												
nemarks.												
I												

Project/Site: The Valley's Edge		City/Co	ounty:Butte		San	npling Date:	1-19-15		
Applicant/Owner: B. Brouhard					State: CA	San	Sampling Point:U80		
Investigator(s): D. Machek, E. Gregg	5		Section	n, Township, Ra	inge:S 4, T 21N, F	R 2E			
Landform (hillslope, terrace, etc.): fan	terrace		Local	relief (concave,	convex, none):none	e	Slo	ope (%):1	
Subregion (LRR):C - Mediterranean	California	Lat:39.7	710738	3	Long:-121.7646	82	Dat	um:WGS	84
Soil Map Unit Name: Clearhayes-Har	nslough, 0 to 2 perc	ent slop	es		NWI cl	assification	:Upland		
Are climatic / hydrologic conditions on	the site typical for this t	time of ye	ar? Ye	es No ((If no, explain	in in Rema	ks.)		
Are Vegetation Soil or H	Hydrology sig	nificantly	disturb	ed? Are	"Normal Circumstar	nces" prese	nt? Yes 🖲	No	0
		turally pro			eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - A	, , ,	nowing	samp					eatures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No	•		Is the Sample	l Area				
Wetland Hydrology Present?	Yes No	•		within a Wetla	nd? Yes		No 💿		
VEGETATION									
VEGETATION	Δ	bsolute	Domir	nant Indicator	Dominance Test	workshoe	ht-		
Tree Stratum (Use scientific names 1				es? Status	Number of Domir That Are OBL, FA	nant Specie	S	0	(A)
3.					Total Number of Species Across A			3	(B)
4. Sapling/Shrub Stratum	Total Cover:	%			Percent of Domin That Are OBL, FA			0.0 %	(A/B)
1.					Prevalence Inde	x workshe	et:		
2.					Total % Cove	er of:	Multip	oly by:	
3.	 -				OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	40	x 4 =	160	
1.Elymus caput medusae		40	Yes	UPL	UPL species	60	x 5 =	300	(D)
2. Erodium botrys		20	Yes	FACU	Column Totals:	100	(A)	460	(B)
3. Agoseris heterophylla	-		No	Not Listed	Prevalence	Index = B	/A =	4.60	
4. Centaurea solstitialis			No	Not Listed	Hydrophytic Veg	getation In	dicators:		
5.Bromus hordeaceous		20	Yes	FACU	Dominance 7	Γest is >50°	%		
6.					Prevalence I				
7					Morphologica		ons' (Provide on a separat		ng
8					- Problematic			,)
Woody Vine Stratum	Total Cover:	100%			¹ Indicators of hyd	dric soil an	d wetland b	vdrology n	muet
1. 2.					be present.	and son an	u wellanu n	yurology II	iiusi
	Total Cover:	%			Hydrophytic				
	0 % % Cover o	of Biotic C	crust _	%	Vegetation Present?	Yes 🔘	No (•	
Remarks:									

SOIL Sampling Point: $\underline{\text{U80}}$

Profile De	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	5 YR 3/4	100					Cobbly clay loam	
	_	· —— —						
								-
	_							
1 _{Tumor} C	Concentration D. Don	leties DM Ded	used Metrix C					Location: PL=Pore Lining, M=Matrix.
Type: C= 	Concentration, D=Dep	letion, Rivi=Real	uced Matrix. C	S=Covere	d or Coate	a Sana Gi	rains	Location. FL=Fore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	le to all I RRs ui	nless otherwise	e noted)			Indicators for	Problematic Hydric Soils: 3
Histos			Sandy Redo					ck (A9) (LRR C)
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped M	, ,				ck (A10) (LRR B)
	Histic (A3)	-	Loamy Mu	. ,	ıl (F1)			Vertic (F18)
	gen Sulfide (A4)	ř	Loamy Gle	-	, ,			ent Material (TF2)
	ed Layers (A5) (LRR (C) [Depleted M	-	,			rplain in Remarks)
	/luck (A9) (LRR D)	ĺ	Redox Dar	k Surface	(F6)			· · · · · · · · · · · · · · · · · · ·
Deplet	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)			
Thick I	Dark Surface (A12)	Ī	Redox Dep	ressions (F8)			hydrophytic vegetation and
Sandy	Mucky Mineral (S1)	Ī	Vernal Poo	ls (F9)				ydrology must be present.
Sandy	Gleyed Matrix (S4)						unless dis	tributed or problematic
Restrictive	e Layer (if present):							
Type:								
Depth (i	inches):		_				Hydric Soil Pr	resent? Yes No •
Remarks:							l	
HYDROL	OGY							
Wetland H	ydrology Indicators:							
Primary Inc	dicators (minimum of o	ne required; che	eck all that app	ly)			Seconda	ry Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	t (B11)			Wa	ter Marks (B1) (Riverine)
High V	Vater Table (A2)		Biotic Cru	st (B12)			Sed	liment Deposits (B2) (Riverine)
l <u>□</u>	ition (A3)			vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ine)	= '	Sulfide O			☐ Drai	nage Patterns (B10)
l ==	ent Deposits (B2) (No				res along	Livina Roc	= =	Season Water Table (C2)
=	eposits (B3) (Nonrive				ed Iron (C4	-	· · · —	yfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	,			on in Plow	′	=	uration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	_	Surface (04.000 (· <u>–</u>	llow Aquitard (D3)
=	-Stained Leaves (B9)	magery (D7)	=	plain in Re	,			C-Neutral Test (D5)
Field Obse	. ,		Other (Ex	piaiii iii itt	iliaiks)			Treatial rest (De)
		es No (Denth (in	chee).				
						-		
		es No (_		
Saturation		es 🦳 No 🤄	Depth (ir	nches):		Wetl	and Hydrology F	Present? Yes No •
	apillary fringe) Secorded Data (stream	gauge, monitori	ing well, aerial	photos nr	evious ins			100111. 100
2 300,100 1	Data (ottodili	,oiiitoii		F5100, PI		- 00110/10/,		
Remarks:								
Nemaiks:								

Project/Site: The Valley's Edge	City/Cou	nty:Butte		Sam	pling Date: 1	1-11-14		
Applicant/Owner: B. Brouhard				State:CA	ate:CA Sampling Point:U81			
Investigator(s):D. Machek, E. Gregg		Section,	Township, Ra	ange:S 28, T 22N, 1	R 2E			
Landform (hillslope, terrace, etc.): terrace		Local re	lief (concave,	convex, none):conv	ex	Slop	oe (%):4	
Subregion (LRR):C - Mediterranean California	Lat:39.	728938		Long:-121.76716	56	 Datur	n:WGS 84	
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent sl	opes			NWI cla	ssification:	—— Upland		
Are climatic / hydrologic conditions on the site typical for this	•	ear? Yes	No (•		
	ignificantly			"Normal Circumstand		,	No 🔘	
	aturally pr			eeded, explain any a	•			
			`	, ,		,	turos ete	
SUMMARY OF FINDINGS - Attach site map s	silowing	Sampii	ing point i	ocalions, transe	ecis, iiiip	ortant rea	itures, etc.	
	0 💿							
	0 💿		the Sample					
Wetland Hydrology Present? Yes N Remarks:	0 💿	w	ithin a Wetla	nd? Yes	0	No 💿		
VECETATION								
VEGETATION	Absolute	Domina	nt Indicator	Dominance Test	workshoo	·-		
Tree Stratum (Use scientific names.)			? Status	Number of Domina				
1		_		That Are OBL, FA			(A)	
2				Total Number of D	ominant			
3				Species Across Al		2	(B)	
4				Percent of Domina	ant Species	3		
Total Cove Sapling/Shrub Stratum	r: %			That Are OBL, FA	CW, or FA	C: 0.0) % (A/B)	
1.				Prevalence Index	workshee	et:		
2.				Total % Cove	r of:	Multiply	by:	
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5				FAC species		x 3 =	0	
Total Cover Herb Stratum	: %			FACU species	20	x 4 =	80	
1.Elymus caput medusae	35	Yes	UPL	UPL species	80	x 5 =	400	
2.Agoseris heterophylla	15	$\frac{1 \text{ cs}}{\text{No}}$	Not Listed	Column Totals:	100	(A)	480 (B)	
3. Centaurea solstitialis	$-\frac{15}{10}$	No	Not Listed	Prevalence I	ndex = B/	A =	4.80	
4. Erodium botrys	20	Yes	FACU	Hydrophytic Veg	etation Inc	licators:		
5.Festuca sp.	10	No	Not Listed	Dominance T	est is >50%	, 0		
6.Eriogonum nudum var. pubiflorum	10	No	Not Listed	Prevalence In				
7.				Morphologica	l Adaptatio	ns¹ (Provide : n a separate	supporting	
8.				- Problematic H				
Total Cover	100%			i iobicinatic i	туаторттупо	vegetation	(Explain)	
Woody Vine Stratum 1.				¹ Indicators of hyd	ric soil and	I wetland hvo	drology must	
				be present.				
Total Cover	: %			Hydrophytic				
\mid % Bare Ground in Herb Stratum $0~\%~$ % Cover	of Biotic (Crust	%	Vegetation Present?	Yes 〇	No 💿		
Remarks:								

SOIL Sampling Point: $\underline{U81}$

	scription: (Describe t	to the depth nee				or confirn	n the absence of inc	licators.)
Depth (inches)	Matrix	0/ 0-1		x Features		1002	Toytura	Domostro
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²		Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loam	
4								
Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	o to all I PPs uni	ace athorwise	noted)			Indicators for Pro	oblematic Hydric Soils: 3
Histose		e to all LKKs, ulli	Sandy Redo	-			1 cm Muck (
	Epipedon (A2)		Stripped M	` '			`	A10) (LRR B)
Black I	Histic (A3)		Loamy Mud	ky Minera	l (F1)		Reduced Ve	rtic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	, ,			Other (Expla	in in Remarks)
	Muck (A9) (LRR D)	(011)	Redox Darl		. ,			
· — ·	ed Below Dark Surface Dark Surface (A12)	e (A11)	Depleted D Redox Dep		. ,		3 Indicators of hyd	drophytic vegetation and
	Mucky Mineral (S1)		J Redox Dep ☐ Vernal Poo	•	ro)			plogy must be present.
	Gleyed Matrix (S4)	L	_ veman oo	15 (1 9)			unless distrib	uted or problematic
	Layer (if present):							
Type:du	ıripan							
	nches):2						Hydric Soil Prese	ent? Yes No 💿
Remarks: I	Extremely shallow, i	rocky substrate	, lava hardp	an at or n	ear surfa	ce. Wate	r flows via sheet fl	ow in a westerly direction
	downslope.		•					•
	200V							
HYDROL								
	ydrology Indicators:	and the second second	Lead that are				Socondan/ I	ndicators (2 or more required)
	dicators (minimum of or	ne requirea; cned		-				Marks (B1) (Riverine)
	e Water (A1)	Ĺ	Salt Crust					, , , ,
<u> </u>	Vater Table (A2)	Ĺ	Biotic Cru		(5.45)			ent Deposits (B2) (Riverine)
	tion (A3)	Ĺ	Aquatic In		,			eposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	· ·	Hydrogen		` '	Carlon Dec	= -	ge Patterns (B10)
	ent Deposits (B2) (Nor	, <u>_</u>	Oxidized I		-	-		ason Water Table (C2)
1 ==	eposits (B3) (Nonriver	ine)	Presence Recent Iro		,	,		n Burrows (C8) ion Visible on Aerial Imagery (C9)
	e Soil Cracks (B6)					rea Solis (′ <u></u>	3 , (,
	ition Visible on Aerial II Stained Leaves (B9)	magery (b7)	Thin Muck	`	,			v Aquitard (D3) eutral Test (D5)
Field Obse		L	Other (EX	Dialit III IXC	iliaiks)			Surai rest (BS)
		es No 💿	Depth (in	ches):				
Water Tabl		es No 💿	Depth (in	· —				
Saturation	_	es O No 💿	Depth (in	· —				
(includes c	apillary fringe)						and Hydrology Pres	sent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
l								

Project/Site: The Valley's Edge			City/Co	ounty:Butte		Sam	npling Date:	1-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:	U82	
Investigator(s): D. Machek, E. Gregg			Section	n, Township, Ra	inge:S 29, T 22N,	R 2E	•		
Landform (hillslope, terrace, etc.): terra	ce		Local	relief (concave,	convex, none):conv	vex .	SI	ope (%):4	ļ
Subregion (LRR):C - Mediterranean	 California	Lat:39.7	728919)	Long:-121.77101	13	 Dat	um:WGS	\$ 84
Soil Map Unit Name: Doemill-Jokerst		pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	*	•	ear? Ye	es (•) No (
		gnificantly			"Normal Circumstan		,) No	
		aturally pro			eeded, explain any a			,	
SUMMARY OF FINDINGS - A								atures	, etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•		Is the Sample	l Area				
Wetland Hydrology Present?	Yes No	•		within a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
Tree Stratum (Use scientific names.		Absolute % Cover		nant Indicator es? Status	Dominance Test				
1.	-	70 00101	_ороон	<u> </u>	Number of Domina That Are OBL, FA			0	(A)
2.			-		-				()
3.					Total Number of D Species Across A			3	(B)
4.					Percent of Domina	ant Specie			
Ocalia a (Ohan h. Ohan h.	Total Cover:	%			That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	v worksho	ot-		
2.					Total % Cove			oly by:	
3.				· · · · · · · · · · · · · · · · · · ·	OBL species		x 1 =	0	_
4.					FACW species		x 2 =	0	
5.			11		FAC species		x 3 =	0	
	Total Cover:	%			FACU species	20	x 4 =	80	
Herb Stratum					UPL species	80	x 5 =	400	
1.Elymus caput medusae		25	Yes	Not Listed	Column Totals:	100	(A)	480	(B)
2 Agoseris heterophylla		10	No	Not Listed	Prevalence	Index = B/	A =	4.80	
3.Festuca sp. 4.Erodium botrys		30	$\frac{\text{Yes}}{\text{Yes}}$	Not Listed	Hydrophytic Veg			7.00	
5. Eriogonum nudum var. pubiflor	-11122	$\frac{20}{15}$	$\frac{1 \text{ es}}{\text{No}}$	FACU Not Listed	Dominance T				
6.	<u>um</u>		-110	- Not Eisted	Prevalence In				
7.					Morphologica				ing
8.							n a separat	,	
	Total Cover:	100%			Problematic F	Hydrophytic	C Vegetation	ı' (Explair	1)
Woody Vine Stratum		100 /0			11. Parton of hour		dda.adda		
1. 2.					¹ Indicators of hyd be present.	ric soil and	d wetland n	yarology	must
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No (•	
Remarks:									

SOIL Sampling Point: $\underline{U82}$

	scription: (Describe t	to the depth nee				or confirn	n the absence of inc	licators.)
Depth (inches)	Matrix	0/ 0-1		x Features		1002	Toytura	Domostro
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²		Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loam	
4								
Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ² Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	o to all I PPs uni	ace athorwise	noted)			Indicators for Pro	oblematic Hydric Soils: 3
Histose		e to all LKKs, ulli	Sandy Redo	-			1 cm Muck (
	Epipedon (A2)		Stripped M	` '			`	A10) (LRR B)
Black I	Histic (A3)		Loamy Mud	ky Minera	l (F1)		Reduced Ve	rtic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M	, ,			Other (Expla	in in Remarks)
	Muck (A9) (LRR D)	(011)	Redox Darl		. ,			
· — ·	ed Below Dark Surface Dark Surface (A12)	e (A11)	Depleted D Redox Dep		. ,		3 Indicators of hyd	drophytic vegetation and
	Mucky Mineral (S1)		J Redox Dep ☐ Vernal Poo	•	ro)			plogy must be present.
	Gleyed Matrix (S4)	L	_ veman oo	15 (1 9)			unless distrib	uted or problematic
	Layer (if present):							
Type:du	ıripan							
	nches):2						Hydric Soil Prese	ent? Yes No 💿
Remarks: I	Extremely shallow, i	rocky substrate	, lava hardp	an at or n	ear surfa	ce. Wate	r flows via sheet fl	ow in a westerly direction
	downslope.		•					•
	200V							
HYDROL								
	ydrology Indicators:	and the second second	Lead that are				Socondan/ I	ndicators (2 or more required)
	dicators (minimum of or	ne requirea; cned		-				Marks (B1) (Riverine)
	e Water (A1)	Ĺ	Salt Crust					, , , ,
<u> </u>	Vater Table (A2)	Ĺ	Biotic Cru		(5.45)			ent Deposits (B2) (Riverine)
	tion (A3)	Ĺ	Aquatic In		,			eposits (B3) (Riverine)
=	Marks (B1) (Nonriveri	· ·	Hydrogen		` '	Carlon Dec	= -	ge Patterns (B10)
	ent Deposits (B2) (Nor	, <u>_</u>	Oxidized I		-	-		ason Water Table (C2)
1 ==	eposits (B3) (Nonriver	ine)	Presence Recent Iro		,	,		n Burrows (C8) ion Visible on Aerial Imagery (C9)
	e Soil Cracks (B6)					rea Solis (′ <u></u>	3 , (,
	ition Visible on Aerial II Stained Leaves (B9)	magery (b7)	Thin Muck	`	,			v Aquitard (D3) eutral Test (D5)
Field Obse		L	Other (EX	Dialit III IXC	iliaiks)			Surai rest (BS)
		es No 💿	Depth (in	ches):				
Water Tabl		es No 💿	Depth (in	· —				
Saturation	_	es O No 💿	Depth (in	· —				
(includes c	apillary fringe)						and Hydrology Pres	sent? Yes O No 💿
Describe R	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
l								

Project/Site: The Valley's Edge	City/Coun	ty:Butte		Sam	pling Date: 1	-19-15			
Applicant/Owner: B. Brouhard					State: CA	Sam	pling Point:[J83	
Investigator(s): D. Machek, E. Gregg			Section, 7	Township, Ra	ange: S 33, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	e		Local reli	ef (concave,	convex, none):conv	ex	Slo	pe (%):4	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	713619		Long:-121.76699	93	Datu	m:WGS 8	4
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	ne site typical for this	time of ye	ear? Yes (No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or H	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No C)
Are Vegetation Soil or H	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in l	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplii	ng point l	ocations, transe	ects, imp	oortant fea	atures, e	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
VEGETATION		Absolute	Dominan	t Indicator	Dominance Test	workshoo	4-		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1					That Are OBL, FA			(A)	.)
2					Total Number of D	Oominant			
3					Species Across A		3	(B))
4				_	Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0	0 % (A/	/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	y by:	
3.				-	OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5.					FAC species		x 3 =	0	
Liant Chraham	Total Cover:	%			FACU species	20	x 4 =	80	
Herb Stratum 1 Flymus agout medusae		50	Yes	UPL	UPL species	80	x 5 =	400	
1.Elymus caput medusae 2.Erodium botrys		20	Yes	FACU	Column Totals:	100	(A)	480	(B)
3. Layia fremontii		5	No	NI NI	Prevalence	Index = B/	A =	4.80	
4. Centaurea solstitialis		5	No	Not Listed	Hydrophytic Veg	etation Inc	dicators:		
5. Festuca sp.		20	Yes	Not Listed	Dominance T	est is >50%	%		
6.					Prevalence Ir				
7.	-				Morphologica	l Adaptatio	ns¹ (Provide n a separate	supporting	ļ
8.					- Problematic H			*	
Mandy Vina Stratum	Total Cover:	100%			1 Toblematic 1	туагорпунс	, vegetation	(Explain)	
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil and	d wetland hv	droloav mu	ıst
3					be present.		,	0,	
Z	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum (0 % Cover of		ruet	%	Vegetation Present?	Yes 〇	No 💽	,	
Remarks:		JI BIOUC C			Fresent?	ies (NO G		
Nemarks.									

SOIL Sampling Point: $\underline{U83}$

Profile De	scription: (Describe t	to the depth nee	eded to docu	ment the i	indicator	or confirn	n the absence of	indicators.)			
Depth	Matrix			x Features			.				
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-6	2.5 YR 2.5/3	_100					Gravelly clay loam				
								·			
	_										
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Histos	Indicators: (Applicabl	e to all LRRs, un	Sandy Redo					Problematic Hydric Soils: ³ k (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped M	, ,				k (A10) (LRR B)			
l <u> </u>	Histic (A3)		Loamy Mud	. ,	ıl (F1)			Vertic (F18)			
l <u> </u>	gen Sulfide (A4)	-	Loamy Gle					nt Material (TF2)			
	ed Layers (A5) (LRR C	;)	Depleted M			plain in Remarks)					
	/luck (A9) (LRR D)	´	Redox Darl	, ,	(F6)			,			
	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	e (F7)						
Thick I	Dark Surface (A12)		Redox Dep		³ Indicators of hydrophytic vegetation and						
Sandy	Mucky Mineral (S1)	Ī	Vernal Poo		wetland hydrology must be present.						
	Gleyed Matrix (S4)						unless distributed or problematic				
Restrictive	e Layer (if present):										
Type:											
Depth (i	inches):						Hydric Soil Pro	esent? Yes No No			
Remarks:											
HYDROL	OGY										
	ydrology Indicators:										
	dicators (minimum of or	ne required: che	rk all that ann	lv)			Secondar	ry Indicators (2 or more required)			
	e Water (A1)	ric required, cric	Salt Crust	*				er Marks (B1) (Riverine)			
l ==	` ,	Ĺ		` '				ment Deposits (B2) (Riverine)			
l <u>□</u>	Vater Table (A2)	L	Biotic Cru		- (D40)			Deposits (B3) (Riverine)			
l <u>—</u>	tion (A3)		Aquatic In					nage Patterns (B10)			
l ==	Marks (B1) (Nonriveri		Hydrogen		` '	Listaa Dar	= =	Season Water Table (C2)			
=	ent Deposits (B2) (Nor				res along	-		` '			
l <u>—</u>	eposits (B3) (Nonriver	ine)	=		ed Iron (C4	,		fish Burrows (C8)			
=	e Soil Cracks (B6)	(57)			on in Plow	rea Solis (ration Visible on Aerial Imagery (C9)			
=	ation Visible on Aerial I	magery (B7)	Thin Muck	,	,			low Aquitard (D3)			
	-Stained Leaves (B9)	L	Other (Exp	plain in Re	emarks)		FAC	-Neutral Test (D5)			
Field Obse		O 11 O	D 41 (1								
		es No 💿		· —							
Water Tab	le Present? Ye	es No 💿	Depth (in	ches):							
Saturation	Present? Ye apillary fringe)	es 🔘 No 💽	Depth (in	ches):		Wetl	and Hydrology P	resent? Yes No			
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins						
	`					, ,.					
Remarks:											

Project/Site: The Valley's Edge		City/Count	y:Butte		Sam	pling Date: 1	1-14-14
Applicant/Owner: B. Brouhard				Sam	Sampling Point:U85 & 84		
Investigator(s):D. Machek, E. Gregg		Section, T	ownship, Ra	ange: S 28, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):none)	Slop	pe (%):1.5
Subregion (LRR):C - Mediterranean California	Lat:39.7	724860		Long:-121.77768	39	Datur	m:WGS 84
Soil Map Unit Name: Redtough-Redswale , 0 to 2 percentage	ent slopes			NWI cla	assification	:Upland	
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes (No ((If no, explai	n in Remar	 ks.)	
Are Vegetation Soil or Hydrology	significantly	disturbed?	. Are	"Normal Circumstan	ces" presei	nt? Yes	No 🔘
	naturally pro			eeded, explain any a	nswers in I	Remarks.)	
SUMMARY OF FINDINGS - Attach site map							atures. etc.
			-3 p	,			
	No 💿 No 💿	lo 4	ha Campla	J A			
,	No (he Sampled hin a Wetla			No 💿	
Remarks:This data sheet is to be used for the uplane						110 (9)	
VEGETATION							
Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test			
1.				Number of Domin That Are OBL, FA			(A)
2.				- - Total Number of [Oominant		
3.				Species Across A		3	(B)
4.	_			Percent of Domin	ant Species	3	
Total Cove	er: %			That Are OBL, FA			0 % (A/B)
Sapling/Shrub Stratum 1.				Prevalence Index	k workshe	et:	
2.				Total % Cove		Multiply	y by:
3.				OBL species		x 1 =	0
4.				FACW species		x 2 =	0
5.				FAC species		x 3 =	0
Total Cove	er: %			FACU species	30	x 4 =	120
Herb Stratum 1. Elymus caput medusae	20	Yes	UPL	UPL species	70	x 5 =	350
2.Centaurea solstitialis	$-\frac{20}{15}$	No	Not Listed	Column Totals:	100	(A)	470 (B)
3. Festuca microstachys	$-\frac{13}{20}$	Yes	Not Listed	Prevalence	Index = B/	A =	4.70
4.Agoseris heterophylla	$-\frac{26}{15}$	No	Not Listed	Hydrophytic Veg	etation Inc	dicators:	
5.Erodium botrys	30	Yes	FACU	Dominance T	est is >50%	6	
6.				Prevalence Ir			
7				Morphologica	l Adaptatio	ns¹ (Provide n a separate	supporting
8				- Problematic I			
Total Cove	er: 100%) · · ·	3	(/
1				¹ Indicators of hyd	ric soil and	d wetland hyd	drology must
2.				be present.			
Total Cove				Hydrophytic			
% Bare Ground in Herb Stratum $0~%~%$ Cove	er of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No 💿)
Remarks:							

SOIL Sampling Point: <u>U85 & 84</u>

Profile Des	scription: (Describe t	to the depth nee				or confirn	n the absence of indic	cators.)
Depth (inches)	Matrix	0/		x Features		1002	Toyture	Pomorles
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²		Remarks
0-6	2.5 YR 3/3						Gravelly clay loam	
	_							
1- 0			114 () 0				21.00	etion, DI. Done Lining M. Matrix
Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains - Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. un	less otherwis	e noted.)			Indicators for Prob	lematic Hydric Soils: 3
Histose			Sandy Red	-			1 cm Muck (As	
	Epipedon (A2)		Stripped M	` '			2 cm Muck (A	
	Histic (A3)		Loamy Mu	-	, ,		Reduced Verti	
	gen Sulfide (A4)		Loamy Gle		(F2)		Red Parent Ma	, ,
	ed Layers (A5) (LRR C	;)	Depleted N	, ,	(5 0)		Other (Explain	in Remarks)
	Muck (A9) (LRR D)	_ (0.4.4)	Redox Dar		` '			
· — ·	ed Below Dark Surface Dark Surface (A12)	(ATT)	Depleted D		. ,		3 Indicators of hydro	ophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	•	10)		wetland hydrolo	ogy must be present.
	Gleyed Matrix (S4)	L	_ voiliai i oc	10 (1 0)			unless distribut	ed or problematic
	Layer (if present):							
Type:								
Depth (i	nches):						Hydric Soil Presen	t? Yes ◯ No ⊙
Remarks:								
HYDROL	nev							
	ydrology Indicators:			1			Secondary Inc	dicators (2 or more required)
	dicators (minimum of or	<u>ne requirea, che</u> i		-				arks (B1) (Riverine)
	e Water (A1)	Ĺ	Salt Crus					, , ,
<u> </u>	Vater Table (A2)	Į.	Biotic Cru		- (D40)			t Deposits (B2) (Riverine)
	tion (A3)	[≓ '	vertebrate	,			osits (B3) (Riverine) Patterns (B10)
=	Marks (B1) (Nonriveri	,	≓ ' °	Sulfide O	` '	Lista a Dar		on Water Table (C2)
	ent Deposits (B2) (Nor	, ,	=	Rhizosphe	_	_		` '
1 ==	eposits (B3) (Nonriver	ine)		of Reduce on Reducti	,	,		Burrows (C8) n Visible on Aerial Imagery (C9)
	e Soil Cracks (B6)		=			reu sons (′ 🖳	3 , (,
	ition Visible on Aerial II Stained Leaves (B9)	magery (b/) [k Surface (plain in Re	,			Aquitard (D3) tral Test (D5)
Field Obse		L	Other (LX	piaiii iii ixe	iliaiks)		I AO Nea	tiai rest (D0)
		es O No 💽	Depth (ir	iches).				
Water Tabl		es No (•		· · ·				
Saturation	_	es O No 💽		· · · · · · · · · · · · · · · · · · ·				
I .	apillary fringe)	es O No G	Doptii (ii			Wetl	and Hydrology Prese	nt? Yes 🖯 No 💿
Describe R	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
I								

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1-14-14	
Applicant/Owner: B. Brouhard				State: CA Sampling Point: U86					
Investigator(s):D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 28, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	:e		Local reli	ef (concave,	convex, none):conv	ex	Slo	pe (%):1	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	724860		Long:-121.77768	39	Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No (
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	sampli	ng point l	ocations, trans	ects, imp	ortant fea	atures, e	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?		•	Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	within a Wetland? Yes No •							
Remarks:			'						
VEGETATION									
Tree Stratum (Use scientific names.)		Absolute % Cover	Species?	t Indicator Status	Number of Domin				
1.	_			· '	That Are OBL, FA) (A	۲)
2.				_	Total Number of D	Onminant			
3.					Species Across A		4	- (E	3)
4					Percent of Domin	ant Specie	S		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA			0 % (A	/B)
1.					Prevalence Index	k workshe	et:		
2.					Total % Cove	r of:	Multipl	y by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Llowb Ctrotum	Total Cover:	%			FACU species	50	x 4 =	200	
Herb Stratum 1. Erodium botrys		20	Yes	FACU	UPL species	50	x 5 =	250	
2.Layia fremontii		5	No	NI	Column Totals:	100	(A)	450	(B)
3. Festuca microstachys		20	Yes	Not Listed	Prevalence	Index = B/	A =	4.50	
4. Bromus hordeaceous		30	Yes	FACU	Hydrophytic Veg	etation Inc	dicators:		
5.Elymus caput medusae		25	Yes	UPL	Dominance T	est is >50%	6		
6.					Prevalence Ir				
7.					Morphologica	I Adaptatio	ns¹ (Provide n a separate	supporting	3
8.					Problematic I				
Mandy Vina Stratum	Total Cover:	100%			- I Toblematic i	туспорттупс	, vegetation	(Explain)	
Woody Vine Stratum 1.				_	¹ Indicators of hydbe be present.	ric soil and	d wetland hy	drology mu	ust
2					_				
	Total Cover:	%			Hydrophytic Vegetation				
) % Cover o	of Biotic C	Crust	<u>%</u>	Present?	Yes 🖯	No 🗨)	
Remarks:									

SOIL Sampling Point: U86

Profile Des	scription: (Describe	to the depth nee	eded to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)				
Depth	Matrix			x Features			- .	B				
(inches)	Color (moist)		lor (moist)	%	_Type ¹	Loc ²	Texture	Remarks				
0-6	2.5 YR 2.5/3						Gravelly clay loan	1				
6-12	2.5 YR 3/4						Gravelly loam					
-												
								-				
	-											
¹ Type: C=0	Concentration, D=Depl	letion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applicabl	e to all LRRs, un	less otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3				
Histoso	• •		Sandy Redo	` '			1 cm Muc	ck (A9) (LRR C)				
	Epipedon (A2)		Stripped M	` '	L (E 4)			ck (A10) (LRR B)				
	Histic (A3) gen Sulfide (A4)	L	Loamy Mu Loamy Gle					Vertic (F18) ent Material (TF2)				
	ed Layers (A5) (LRR C	:)			plain in Remarks)							
	fluck (A9) (LRR D)	,	Depleted Marked Redox Dar	` '	(F6)			, , ,				
. — .	ed Below Dark Surface	e (A11)	Depleted D		` '		³ Indicators of	hydrophytic vogotation and				
	Dark Surface (A12)		Redox Dep	,	F8)		3 Indicators of hydrophytic vegetation and wetland hydrology must be present.					
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	ls (F9)			unless distributed or problematic					
	Layer (if present):							·				
Type:	Layer (ii present).											
Depth (ii	nches):						Hydric Soil Pr	esent? Yes No •				
Remarks:							1,000					
HYDROLO	nev .											
1	ydrology Indicators:	na raguirad, abac	als all that ann	1)			Seconda	ry Indicators (2 or more required)				
	licators (minimum of o	<u>ne requirea, chec</u>	Salt Crus					ter Marks (B1) (Riverine)				
🖳	e Water (A1) /ater Table (A2)	L T	Biotic Crus	` '				iment Deposits (B2) (Riverine)				
	tion (A3)	L T		st (B12) vertebrate	s (B13)			Deposits (B3) (Riverine)				
🖳	Marks (B1) (Nonriveri	ne)	= '	Sulfide O				nage Patterns (B10)				
l <u>—</u>	ent Deposits (B2) (Nor	· ·	= ' '	Rhizosphe	, ,	Living Ro	= =	Season Water Table (C2)				
🖳	eposits (B3) (Nonriver	· '	=	of Reduce	_	_	· · · =	rfish Burrows (C8)				
Surface	e Soil Cracks (B6)		=	on Reducti				ration Visible on Aerial Imagery (C9)				
Inunda	tion Visible on Aerial I	magery (B7)	Thin Mucl	Surface (C7)		Sha	llow Aquitard (D3)				
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	-Neutral Test (D5)				
Field Obse	ervations:											
Surface Wa	ater Present? You	es O No 💿		iches):								
Water Table	e Present? Yo	es O No 💿	Depth (ir	iches):								
Saturation I	Present? Yo apillary fringe)	es O No 💿	Depth (ir	iches):		Wetl	land Hydrology P	Present? Yes O No •				
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, pr	evious ins							
Remarks:												

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					Sam	Sampling Point:U 87			
Investigator(s): D. Machek, E. Gregg			Section, T	ownship, Ra	ange:S 4, T 21N, R	R 2E			
Landform (hillslope, terrace, etc.): fan te	errace		Local reli	ef (concave,	convex, none):none	e	Slop	pe (%):1	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	710812		Long:-121.7626	51	Datum:WGS 84		
Soil Map Unit Name: Clearhayes-Ham	slough, 0 to 2 per	cent slop	oes		NWI cl	assification	:Upland		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	answers in I	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	samplir	ng point l	ocations, trans	ects, imp	ortant fea	atures, et	c.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		Ist	the Sample	d Area				
Wetland Hydrology Present?	Yes No	No within a Wetland? Yes No No							
Remarks:									
VEGETATION									
		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	9	% Cover	Species?	Status_	Number of Domin				
1				_	That Are OBL, FA	CW, or FA	C: 0	(A)	
2					Total Number of [2	(5)	
3				-	Species Across A	III Strata:	3	(B)	
4	Total Cover:	%		-	Percent of Domin			0 (4/5	2)
Sapling/Shrub Stratum	Total Cover.	70			That Are OBL, FA	ACVV, OF FA	C: 0.0	0 % (A/E	3)
1					Prevalence Inde		et:		
2					Total % Cove	er of:	Multiply		
3					OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5	Total Cover:	0/			FAC species FACU species	60	x 3 = x 4 =	240	
Herb Stratum	Total Cover.	%			UPL species	40	x 5 =	200	
1.Centaurea solstitialis		5	No	Not Listed	Column Totals:	100	(A)		B)
2.Bromus hordeaceous		30	Yes	FACU			, ,		-,
3. Erodium botrys		30	Yes	FACU	Prevalence			4.40	
4. Elymus caput medusae		35	Yes	UPL	Hydrophytic Veg				
5					Dominance T				
6.					Morphologica			eupporting	
7				-	- data in Re	emarks or o	n a separate	sheet)	
8	Total Cover:	100		-	Problematic I	Hydrophytic	Vegetation ¹	(Explain)	
Woody Vine Stratum	Total Cover.	100%							
1					¹ Indicators of hydbe be present.	tric soil and	d wetland hyd	drology mus	st
2				_	-				
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 🗨)	
Remarks:					•				\neg

SOIL Sampling Point: U 87

Profile De	scription: (Describe t	o the depth nee	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)			
Depth	Matrix			x Features							
(inches)	Color (moist)		lor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-12	5 YR 3/4	_100					Cobbly clay loam				
								-			
	_							-			
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ²	Location: PL=Pore Lining, M=Matrix.			
	, ,	•									
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	e noted.)			Indicators for	Problematic Hydric Soils: 3			
Histos	ol (A1)		Sandy Redo	x (S5)				k (A9) (LRR C)			
	Epipedon (A2)		Stripped Ma	. ,				k (A10) (LRR B)			
	Histic (A3)		Loamy Mud	•	. ,			Vertic (F18)			
	gen Sulfide (A4)		Loamy Gle	•	(F2)			nt Material (TF2)			
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(FC)		Other (Ex	plain in Remarks)			
	Muck (A9) (LRR D) ed Below Dark Surface	\((() () () ()	Redox Dark		` '						
	Dark Surface (A12)	(A11)	Redox Dep		` '		3 Indicators of	hydrophytic vegetation and			
	Mucky Mineral (S1)	<u> </u>	Vernal Poo	,	10)		wetland hy	drology must be present.			
	Gleyed Matrix (S4)	L	_ voinai i oo	10 (1 0)			unless distributed or problematic				
	e Layer (if present):										
Type:											
Depth (i	inches):						Hydric Soil Pr	esent? Yes No 💿			
Remarks:											
HYDROL											
	lydrology Indicators:										
	dicators (minimum of or	ne required; chec	ck all that appl	y)				ry Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)				er Marks (B1) (Riverine)			
High V	Vater Table (A2)		Biotic Cru					iment Deposits (B2) (Riverine)			
Satura	ition (A3)		Aquatic In	vertebrate	es (B13)			Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)			nage Patterns (B10)			
Sedim	ent Deposits (B2) (Non	riverine)	Oxidized I	Rhizosphe	res along	Living Roo		Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	ł)	Cray	fish Burrows (C8)			
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satu	ration Visible on Aerial Imagery (C9)			
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface ((C7)		Shal	low Aquitard (D3)			
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC	-Neutral Test (D5)			
Field Obse	ervations:										
Surface Wa	ater Present? Ye	es O No 💿	Depth (in	ches):							
Water Tab	le Present? Ye	es O No 💿	Depth (in	ches):							
Saturation		es O No 💿	Depth (in	ches):		18/-41	and Hudnalani D	wasanta Vas C Na G			
	apillary fringe) Recorded Data (stream	gauge monitorin	na well serial	nhotoe pr	evious inc		and Hydrology P	resent? Yes O No •			
Describe K	recoluen Dala (Silediii	gauge, monitorii	ig weii, aerial	ριτυιυδ, βΙ	evious iils	p c ulul18),	ii avaiiable.				
Remarks:											
nemarks.											
I											

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1/11/14	
Applicant/Owner: B. Brouhard					State:CA	Sampling Point:U 88			
Investigator(s): D. Machek, E. Gregg			Section, 7	Township, Ra	ange:S 4, T 21N, R	2E			
Landform (hillslope, terrace, etc.): fan te	errace		Local reli	ef (concave,	convex, none):none	;	Slop	pe (%):1.5	
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	711146		Long:-121.76158	37	7 Datum: WGS 84		
Soil Map Unit Name: Clearhayes-Ham	slough, 0 to 2 perc	cent slop	oes		NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remar	ks.)		
Are Vegetation Soil or Hy	ydrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No 🔘	
Are Vegetation Soil or Hy	ydrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - At	tach site map sl	nowing	sampli	ng point l	ocations, trans	ects, imp	ortant fea	atures, etc	
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	within a Wetland? Yes No •							
Remarks:									
VEGETATION									
Tree Charters (Head asigntific passes)		Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	<u></u>	% Cover	Species?	Status_	Number of Domin That Are OBL, FA			(A)	
1. 2.			-	_	-		0. 0	(A)	
3.					 Total Number of I Species Across A 		3	(B)	
4.					_			(-)	
One I'm a (Oharah Otantara	Total Cover:	%			Percent of Domina That Are OBL, FA			0 % (A/B)	
Sapling/Shrub Stratum 1.					Prevalence Index	v workshe	at·		
2.					Total % Cove		Multiply	v bv:	
3.				-	OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
	Total Cover:	%			FACU species	60	x 4 =	240	
Herb Stratum		1.0	NT		UPL species	40	x 5 =	200	
1.Layia fremontii		10 25	No	Not Listed	Column Totals:	100	(A)	440 (B)	
2.Bromus hordeaceous 3.Erodium botrys		35	Yes Yes	FACU FACU	Prevalence	Index = B/	A =	4.40	
4. Elymus caput medusae		30	Yes	UPL	Hydrophytic Veg	etation Inc	dicators:		
5.		30			Dominance T	est is >50%	6		
6.					Prevalence Ir	ndex is ≤3.0)1		
7.				-	Morphologica	l Adaptatio	ns ¹ (Provide	supporting	
8.					- Droblematic H		n a separate	•	
Woody Vino Stratum	Total Cover:	100%			I Toblematic i	туаторттупс	, vegetation	(Explair)	
Woody Vine Stratum 1.					¹ Indicators of hyd	ric soil and	d wetland hyd	drology must	
1					be present.		,	07	
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0) %_ % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes 🔘	No 💿)	
Remarks:									

SOIL Sampling Point: $\underline{U~88}$

Profile De	scription: (Describe	to the depth ne	eded to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	5 YR 3/4	100					Cobbly clay loam	
	_	· —— —						
								-
	_							
1 _{Tumor} C	Concentration D. Don	leties DM Ded	used Metrix C					Location: PL=Pore Lining, M=Matrix.
Type: C= 	Concentration, D=Dep	letion, Rivi=Real	uced Matrix. C	S=Covere	d or Coate	a Sana Gi	rains	Location. FL=Fore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	le to all I RRs ui	nless otherwise	e noted)			Indicators for	Problematic Hydric Soils: 3
Histos			Sandy Redo					ck (A9) (LRR C)
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped M	, ,				ck (A10) (LRR B)
	Histic (A3)	-	Loamy Mu	. ,	ıl (F1)			Vertic (F18)
	gen Sulfide (A4)	ř	Loamy Gle	-	, ,			ent Material (TF2)
	ed Layers (A5) (LRR (C) [Depleted M	-	,			rplain in Remarks)
	/luck (A9) (LRR D)	ĺ	Redox Dar	k Surface	(F6)			· · · · · · · · · · · · · · · · · · ·
Deplet	ed Below Dark Surface	e (A11)	Depleted D	ark Surfac	ce (F7)			
Thick I	Dark Surface (A12)	Ī	Redox Dep	ressions (F8)			hydrophytic vegetation and
Sandy	Mucky Mineral (S1)	Ī	Vernal Poo	ls (F9)				ydrology must be present.
Sandy	Gleyed Matrix (S4)						unless dis	tributed or problematic
Restrictive	e Layer (if present):							
Type:								
Depth (i	inches):		_				Hydric Soil Pr	resent? Yes No •
Remarks:							l	
HYDROL	OGY							
Wetland H	ydrology Indicators:							
Primary Inc	dicators (minimum of o	ne required; che	eck all that app	ly)			Seconda	ry Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	t (B11)			Wa	ter Marks (B1) (Riverine)
High V	Vater Table (A2)		Biotic Cru	st (B12)			Sed	liment Deposits (B2) (Riverine)
l <u>□</u>	ition (A3)			vertebrate	es (B13)		Drift	Deposits (B3) (Riverine)
l <u>—</u>	Marks (B1) (Nonriveri	ine)	= '	Sulfide O			☐ Drai	nage Patterns (B10)
l ==	ent Deposits (B2) (No				res along	Livina Roc	= =	Season Water Table (C2)
=	eposits (B3) (Nonrive				ed Iron (C4	-	· · · —	yfish Burrows (C8)
l <u>—</u>	e Soil Cracks (B6)	,			on in Plow	′	=	uration Visible on Aerial Imagery (C9)
=	ation Visible on Aerial I	magery (B7)	_	Surface (04.000 (· <u>–</u>	llow Aquitard (D3)
=	-Stained Leaves (B9)	magery (Dr)	=	plain in Re	,			C-Neutral Test (D5)
Field Obse	. ,		Other (Ex	piaiii iii itt	iliaiks)			Treatial rest (De)
		es No (Denth (in	chee).				
						_		
		es No (_		
Saturation		es 🦳 No 🤄	Depth (ir	nches):		Wetl	and Hydrology F	Present? Yes No •
	apillary fringe) Secorded Data (stream	gauge, monitori	ing well, aerial	photos nr	evious ins			100111. 100
2 300,100 1	Data (ottodili	,oiiitoii		F5100, PI		- 00110/10/,		
Remarks:								
Nemaiks:								

Project/Site: The Valley's Edge		City/Count	y:Butte		Samp	ling Date: 11	-11-14	
Applicant/Owner: B. Brouhard				State:CA Sampling Point:U89				
Investigator(s): D. Machek, E. Gregg		Section, T	ownship, Ra	inge:S 28, T 22N, R 2	- E	_		
Landform (hillslope, terrace, etc.): terrace		Local relie	ef (concave,	convex, none):convex		Slop	e (%):3	
Subregion (LRR):C - Mediterranean California	Lat:39.7	728938		Long:-121.767166		Datum: WGS 84		
Soil Map Unit Name: Doemill-Jokerst, 3 to 8 percent slo	pes			NWI classif	ication:U	Jpland		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes (No ((If no, explain in	 Remarks	s.)		
		disturbed?		"Normal Circumstances"	present	? Yes 💿	No 🔘	
Are Vegetation Soil or Hydrology na	aturally pro	oblematic?	(If ne	eeded, explain any answ	ers in Re	emarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	ng point lo	ocations, transects	s, impo	ortant fea	tures, etc.	
Hydrophytic Vegetation Present? Yes No	•							
Hydric Soil Present? Yes No		ls t	he Sampled	l Area				
Wetland Hydrology Present? Yes No	• •	wit	hin a Wetlaı	nd? Yes C	N	o		
Remarks:								
VEGETATION								
	Absolute		Indicator	Dominance Test wor	ksheet:			
	% Cover	Species?	_Status_	Number of Dominant		. 0	(4)	
1			-	That Are OBL, FACW	, OI FAC	: 0	(A)	
3.			-	 Total Number of Dom Species Across All St 		2	(B)	
4.				-		2	(5)	
Total Cover:	%			 Percent of Dominant S That Are OBL, FACW 		0.0	% (A/B)	
Sapling/Shrub Stratum 1.				Prevalence Index wo	rkehoot			
2.				Total % Cover of:		Multiply	by:	
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5.				FAC species		x 3 =	0	
Total Cover:	%	_	-	FACU species	60	x 4 =	240	
Herb Stratum				UPL species	40	x 5 =	200	
1.Bromus hordeaceous	15	No	FACU	Column Totals:	100	(A)	440 (B)	
2.Agoseris heterophylla	10	No	Not Listed	Prevalence Inde	x = B/A	_	4.40	
3.Festuca sp.	30	Yes	FACU	Hydrophytic Vegetat			T.TU	
Erodium botrys Elymus caput medusae	$\frac{15}{30}$	No Yes	FACU UPL	Dominance Test		outo. 0.		
		168	UPL	Prevalence Index				
7.				Morphological Ad	aptations	s¹ (Provide s	supporting	
8.				data in Remar	ks or on	a separate s	sheet)	
Total Cover:	100%			Problematic Hydr	ophytic \	/egetation1 (Explain)	
Woody Vine Stratum	100 /0			1 Indicators of budgies	المحمالة	watland byd	rology must	
1		-		Indicators of hydric sbe present.	on and v	wetiand nyd	rology must	
2Total Cover:	%		-	Hydrophytic				
% Bare Ground in Herb Stratum $0~%$ % Cover		Crust	%	Vegetation	es 🔘	No •		
Remarks:				L				

SOIL Sampling Point: $\underline{U89}$

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the	indicator	or confirn	n the absence of ind	icators.)
Depth (inches)	Matrix	0/ 0-1		x Features		1002	Toytura	Domarko
(inches)	Color (moist)		or (moist)	%	_Type ¹	Loc ²		Remarks
0-4	2.5 YR 2.5/3						Gravelly clay loam	
	_							
	-							
1								
'Type: C=0	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covere	d or Coate	d Sand G	rains ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all I RRs uni	ess otherwise	noted)			Indicators for Pro	blematic Hydric Soils: 3
Histos			Sandy Redo	-			1 cm Muck (A	
	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck (A	A10) (LRR B)
	Histic (A3)		Loamy Mud	-			Reduced Ver	
	gen Sulfide (A4)		Loamy Gle		(F2)		Red Parent N	* *
	ed Layers (A5) (LRR C	<u> </u>	Depleted M	, ,	(Ec)		Other (Explai	n in Remarks)
	fluck (A9) (LRR D) ed Below Dark Surface	(A11)	Redox Darl Depleted D		. ,			
· — ·	Dark Surface (A12)	[Redox Dep		, ,			rophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	•	- /			logy must be present.
Sandy	Gleyed Matrix (S4)						unless distribu	uted or problematic
	Layer (if present):							
Type:du								
	nches):2						Hydric Soil Prese	
	•	rocky substrate	, lava hardp	an at or n	near surfa	ce. Wate	er flows via sheet flo	ow in a westerly direction
	lownslope.							
HYDROL	OGY							
Wetland H	ydrology Indicators:							
	dicators (minimum of or	ne required; chec	k all that app	ly)			Secondary Ir	ndicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)			Water N	Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru				Sedime	nt Deposits (B2) (Riverine)
Satura	tion (A3)	Ī	Aquatic In		es (B13)		Drift De	posits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	 Hydrogen	Sulfide O	dor (C1)		Drainag	e Patterns (B10)
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizosphe	res along	Living Roo	ots (C3) Dry-Sea	son Water Table (C2)
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	!)	Crayfish	Burrows (C8)
	e Soil Cracks (B6)				on in Plow	ed Soils (′ <u></u>	on Visible on Aerial Imagery (C9)
	tion Visible on Aerial In	magery (B7)	Thin Muck	`	,			Aquitard (D3)
	Stained Leaves (B9)		Other (Exp	olain in Re	emarks)		FAC-Ne	eutral Test (D5)
Field Obse		0 11 0	5 4 6					
		es No 💿		· ·				
Water Tabl	_	es No 💿	Depth (in	·				
Saturation (includes care	Present? Υε apillary fringe)	es O No 💿	Depth (in	ches):		Wetl	and Hydrology Pres	ent? Yes No •
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			
Remarks:								

Project/Site: The Valley's Edge			City/Coun	ity:Butte		San	npling Date: 1	1-11-14	
Applicant/Owner: B. Brouhard					State:CA	San	Sampling Point: U 90		
Investigator(s):D. Machek, E. Gregg			Section,	Γownship, Ra	ange:S 33, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace	ce		Local reli	ef (concave,	convex, none): con	vex	Slo	pe (%): 3.5	5
Subregion (LRR):C - Mediterranean C	alifornia	Lat:39.7	721514		Long:-121.75800)6	Datu	ım:WGS 8	4
Soil Map Unit Name: Doemill-Jokerst,	3 to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the	e site typical for this	time of ye	ear? Yes (No ((If no, explai	n in Remai	·ks.)		
Are Vegetation Soil or Hy	drology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No C	
Are Vegetation Soil or Hy	drology na	turally pro	oblematic?) (If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Att	ach site map sl	nowing	sampli	ng point l	ocations, trans	ects, im	portant fe	atures, e	etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
		Absolute	Dominan	t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	0	% Cover	Species	Status_	Number of Domin				
1				_	That Are OBL, FA	CW, or FA	C: 0) (A	.)
2					Total Number of [
3					Species Across A	ll Strata:	2	(B	.)
4	Total Cover:	%			Percent of Domin			0 (4	(D)
Sapling/Shrub Stratum	Total Cover.	%0			That Are OBL, FA	CVV, OF FA	ic: 0.	0 % (A/	/B)
1				_	Prevalence Inde	x workshe	et:		
2					Total % Cove	er of:	Multipl		
3				_	OBL species		x 1 =	0	
4					FACW species		x 2 =	0	
5	Total Covers	0/			FAC species FACU species	25	x 3 = x 4 =	140	
Herb Stratum	Total Cover:	%			UPL species	35 65	x 4 = x 5 =	140 325	
1.Elymus caput medusae		50	Yes	UPL	Column Totals:	100	(A)		(B)
2. Erodium botrys		30	Yes	FACU	_ Column Totals.	100	(A)	703	(D)
3. Festuca bromoides		5	No	FACU	Prevalence			4.65	
4. Layia fremontii		15	No	Not Listed	Hydrophytic Veg				
5.					Dominance T				
6					Prevalence Ir				
7					Morphologica data in Re	ii Adaptatio marks or c	ons (Provide on a separate	supporting sheet)	ļ
8	T-1-1-0				Problematic I				
Woody Vine Stratum	Total Cover:	100%							
1					¹ Indicators of hyd	lric soil an	d wetland hy	drology mu	ıst
2					be present.				
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum0	% Cover of	of Biotic C	Crust	%_	Vegetation Present?	Yes 〇	No 🖲)	
Remarks:					1				

SOIL Sampling Point: $\underline{U\,90}$

Profile Des	scription: (Describe	to the depth			dicator	or confirm	n the absence o	f indicators.)
Depth (inches)	Matrix	0/		x Features	Tuno 1	1002	Toyeture	Domorko
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	Texture	Remarks
0-4	2.5 YR 2.5/3						clay loam	gravel and large rocks present
	_							
1			De desert March Of		0 1 -	1010		2 Location: DL Doro Lining M Matrix
Type: C=0	Concentration, D=De	pletion, RIM=F	Reduced Matrix. C	S=Covered	or Coate	d Sand Gr	rains	² Location: PL=Pore Lining, M=Matrix.
Hvdric Soil	Indicators: (Applicat	ole to all LRR	s. unless otherwise	noted.)			Indicators fo	r Problematic Hydric Soils: 3
Histoso			Sandy Redo	-				ick (A9) (LRR C)
Histic E	Epipedon (A2)		Stripped Ma	atrix (S6)			2 cm Mu	ıck (A10) (LRR B)
	Histic (A3)		Loamy Mud					d Vertic (F18)
	Hydrogen Sulfide (A4) Loamy Gleyed County (A5) (LRR C)				F2)		<u></u>	ent Material (TF2)
_	ed Layers (A5) (LRR	C)	Depleted M Redox Dark		Uther (E	xplain in Remarks)		
	/luck (A9) (LRR D) ed Below Dark Surfac	re (A11)	Depleted D	•	•			
	Dark Surface (A12)	50 (/ (1 1)	Redox Dep			f hydrophytic vegetation and		
	Mucky Mineral (S1)		Vernal Poo		-,			nydrology must be present.
	Gleyed Matrix (S4)			, ,			unless di	stributed or problematic
Restrictive	Layer (if present):							
Type:du	ıripan							
	nches):4						Hydric Soil P	
						oint. Soil	on top of mou	nds were slightly deeper than in
S	swale like features;	however, tl	hey had similar o	haracteris	tics.			
HYDROLO	ng y							
	ydrology Indicators							
	dicators (minimum of		check all that anni	v)			Second	ary Indicators (2 or more required)
	e Water (A1)	one required,	Salt Crust					ater Marks (B1) (Riverine)
	Vater Table (A2)		Biotic Crus					diment Deposits (B2) (Riverine)
=	tion (A3)			vertebrates	(B13)		=	ft Deposits (B3) (Riverine)
	Marks (B1) (Nonrive	rine)	— '	Sulfide Odd	` '			ainage Patterns (B10)
	ent Deposits (B2) (No		, י	Rhizosphere	' '	Living Roc	= -	y-Season Water Table (C2)
	eposits (B3) (Nonrive	,	=	of Reduced	-	-		ayfish Burrows (C8)
	e Soil Cracks (B6)	,		n Reductio	,	,		turation Visible on Aerial Imagery (C9)
	tion Visible on Aerial	Imagery (B7)	<u></u>	Surface (C		(,	allow Aquitard (D3)
Water-	Stained Leaves (B9)	3 , ()		olain in Rem	,		=	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present?	Yes O N	o Depth (in	ches):				
Water Tabl	e Present?	Yes O N	o Depth (in	ches):				
Saturation		Yes ○ N	o Depth (in	ches):				
	apillary fringe) ecorded Data (strean		itoring well periol	nhotos pro	vioue inc		and Hydrology	Present? Yes No •
Describe K	ecorded Data (Stream	n gauge, mor	illoring well, aerial	priotos, pre	vious iris	pections),	ii avaliable.	
Remarks:								
Nomano.								

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Co	ounty:Butte			Sam	pling Date:	11-11-1	4
Applicant/Owner: B. Brouhard					S	State:CA	Sam	pling Point:	U 91	
Investigator(s): D. Machek, E. Gregg	5		Section	n, Township, Ra	inge:S 3	3, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terr	ace		Local	relief (concave,	convex,	none): slig	tly conve	ex Slo	ope (%): (3
Subregion (LRR): \underline{C} - $\underline{Mediterranean}$	California	_Lat:39.7	722961		_ Long:-	121.7583	10	Dati	um:WGS	3 84
Soil Map Unit Name: Doemill-Jokers	t, 3 to 8 percent slo	pes				NWI cl	assification	Upland		
Are climatic / hydrologic conditions on t	the site typical for this	time of ye	ar? Ye	es No ((1	If no, expla	in in Remar	ks.)		
Are Vegetation Soil or F	Hydrology sig	gnificantly	disturb	ed? Are	"Normal	Circumstar	nces" prese	nt? Yes 💽	No	\circ
Are Vegetation Soil or F	Hydrology na	turally pro	oblemat	tic? (If ne	eeded, ex	xplain any a	answers in I	Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map sl	howing	samp	oling point lo	ocation	ns, trans	ects, imp	ortant fe	atures	, etc.
Hydrophytic Vegetation Present?	Yes No	•								
Hydric Soil Present?	Yes No	•		Is the Sampled	d Area					
Wetland Hydrology Present? Remarks:	Yes No	•		within a Wetlar	nd?	Yes	. 0	No 💿		
VEGETATION		Nhaalista	Danie		Domin	T		4-		
Tree Stratum (Use scientific names 1.		Absolute % Cover		nant Indicator es? Status	Numb	er of Domir	t workshee nant Specie ACW, or FA	S	0	(A)
3.						Number of I			2	(B)
4. Sapling/Shrub Stratum	Total Cover:	%					ant Species ACW, or FA		.0 %	(A/B)
1.					Preva	lence Inde	x workshe	et:		
2.					To	otal % Cove	er of:	Multip	ly by:	_
3.					_	pecies		x 1 =	0	
4					_	/ species		x 2 =	0	
5					-	pecies	7 0	x 3 =	0	
Herb Stratum	Total Cover:	%				species pecies	50	x 4 = x 5 =	200	
1.Elymus caput medusae		45	Yes	UPL		n Totals:	50		250 450	
2. Erodium botrys			No	FACU	Colum	in rotals.	100	(A)	430	(D)
3. Bromus hordeaceous		35	Yes	FACU	- F	Prevalence	Index = B/	A =	4.50	
4. Layia fremontii		5	No	NI	_		getation Inc			
5.							Test is >50%			
6. 7.						orphologica		ns¹ (Provide		ing
8.					1			n a separate	,	- \
Woody Vine Stratum	Total Cover:	100%			-	robiematic	Hyaropnytic	Vegetation	(Explair	ח)
1. 2.						ators of hydesent.	dric soil and	l wetland hy	/drology	must
	Total Cover:	%				phytic				
% Bare Ground in Herb Stratum	0 % Cover o	of Biotic C	Crust _	%	Veget Prese		Yes 🔘	No (•	
Remarks:										

SOIL Sampling Point: $\underline{U91}$

Profile Des	cription: (Describe t	to the depth nee	eded to docu	ment the ind	icator	or confirm	n the abs	ence of i	ndicators	s.)	
Depth	Matrix			x Features							
(inches)	Color (moist)		lor (moist)		Type ¹	Loc ²	Textu	ire		Remar	ks
0-4	2.5 YR 2.5/3	100					clay loan	n	gravel a	nd large roo	cks present
	-										
				- — —							
	-										
¹Type: C=C	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covered or	r Coate	d Sand Gr	rains	2	Location:	PL=Pore Lini	ing, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, un	less otherwise	noted.)			Indica	ators for F	Problemati	ic Hydric Soil	s: ³
Histoso	l (A1)		Sandy Redo	x (S5)			<u> </u>	cm Muck	(A9) (LR	RC)	
Histic E	pipedon (A2)	Ī	Stripped Ma	atrix (S6)			2	cm Muck	(A10) (L	RR B)	
Black H	listic (A3)		Loamy Mud	ky Mineral (F	- 1)				ertic (F18	,	
Hydrog	en Sulfide (A4)		⊒ ' '	ed Matrix (F	2)				nt Material		
	ed Layers (A5) (LRR C	;)	Depleted M					Other (Exp	olain in Re	emarks)	
	uck (A9) (LRR D)			Surface (F6	,						
	ed Below Dark Surface	e (A11)		ark Surface (. ,		3 Indic	ators of h	ydrophyti	c vegetation	and
	Oark Surface (A12)	L		ressions (F8))					ust be preser	
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	S (F9)			ur	nless distr	ibuted or	problematic	
	Layer (if present):									•	
Type:du	*						l	0 " 0	10	v	
Depth (ir					1			Soil Pre		Yes 🖯	No 💿
	Iardpan visible at su	•		_	-	oint. Soil	on top o	f mound	is were s	lightly deep	er than in
S	wale like features; l	nowever, they	had similar c	haracteristi	cs.						
HYDROLO)CV										
	/drology Indicators:										
-	icators (minimum of or	ne required: che	ck all that appl	v)			9	Secondar	y Indicato	rs (2 or more	required)
	e Water (A1)	[Salt Crust				i	Wate	er Marks (B1) (Riverine)
=	ater Table (A2)	L	Biotic Cru				[osits (B2) (Ri	
= -	ion (A3)	L		vertebrates (I	B13)		[B3) (Riverin	
	Marks (B1) (Nonriveri	ne)	=	Sulfide Odor			[erns (B10)	5)
=	ent Deposits (B2) (Nor	-	≓ ′′	Rhizospheres	` '	Living Roc	nte (C3)		-	ater Table (C	2)
=	eposits (B3) (Nonriver	, ,		of Reduced I	_	-) (OO)]	= '	ish Burrov	,	_,
=	e Soil Cracks (B6)	[[n Reduction	`	′	C6) [` '	Imagery (C9)
	tion Visible on Aerial Ir	mageny (B7)		Surface (C7		ca oons () (OO)		ow Aquita		inagery (00)
=	Stained Leaves (B9)	liagery (D7)		plain in Rema	,] [_	Neutral Te	` '	
Field Obse	. ,	L	Other (EX	nain in Kema	aino)		l		ineutiai i	est (D3)	
		no O No G	Donth (in	ahaa\.							
		es No 💿		· -							
Water Table		es O No 💿		· · —							
Saturation F	Present? Υε apillary fringe)	es 🦳 No 💽	Depth (in	ches):		Wetla	and Hvdi	rology Pr	esent?	Yes (No (
	ecorded Data (stream	gauge, monitorir	ng well, aerial	photos, previ	ous ins						
	,			•		. ,.					
Remarks:											

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	1-11-14
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point: [J 92
Investigator(s): D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 33, T 22N,	R 2E		
Landform (hillslope, terrace, etc.): terrace	ce		Local reli	ef (concave,	convex, none): slig	htly conve	x Slop	pe (%): 3.5
Subregion (LRR):C - Mediterranean C	California	Lat:39.7	721638		Long:-121.75878	36	Datur	n:WGS 84
Soil Map Unit Name: Doemill-Jokerst	, 3 to 8 percent slo	pes			NWI cla	assification:	Upland	
Are climatic / hydrologic conditions on th	e site typical for this	time of ye	ar? Yes (No ((If no, explain	n in Remarl	(S.)	
Are Vegetation Soil or Hy	vdrology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" preser	nt? Yes 💿	No 🔘
Are Vegetation Soil or Hy	vdrology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in F	Remarks.)	
SUMMARY OF FINDINGS - At	tach site map sl	howing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	itures, etc.
Hydrophytic Vegetation Present?	Yes No	•						
Hydric Soil Present?		•	Is	the Sample	d Area			
Wetland Hydrology Present?	Yes No			thin a Wetla			No 💿	
Remarks:								
VEGETATION								
T 0:		Absolute		t Indicator	Dominance Test	worksheet	:	
Tree Stratum (Use scientific names.)	_	% Cover	Species?	Status_	Number of Domin			(4)
1. 2.					That Are OBL, FA		D: 0	(A)
3.					Total Number of E Species Across A		3	(B)
4.					Percent of Domina	ant Spacies		
Sonling/Shrub Stratum	Total Cover:	%			That Are OBL, FA) % (A/B)
Sapling/Shrub Stratum 1.					Prevalence Index	workshee	et:	
2.					Total % Cove		Multiply	/ by:
3.					OBL species		x 1 =	0
4.					FACW species		x 2 =	0
5.					FAC species		x 3 =	0
Hart Otractors	Total Cover:	%			FACU species	30	x 4 =	120
Herb Stratum		45	Yes	LIDI	UPL species	70	x 5 =	350
1.Elymus caput medusae 2.Erodium botrys		30	Yes	- UPL FACU	Column Totals:	100	(A)	470 (B)
3. Festuca sp.		25	Yes	Not Listed	Prevalence	Index = B/	A =	4.70
4.			103	- Tion Listed	Hydrophytic Veg	etation Inc	licators:	
5.					Dominance T	est is >50%	, D	
6.					Prevalence In	ndex is ≤3.0	1	
7.			,		Morphologica	l Adaptation	ns¹ (Provide : n a separate	supporting
8.					- Problematic H		•	•
Woody Vine Stratum	Total Cover:	100%			1 Toblematic 1	тушторттупо	vegetation	(Explair)
1.				_	¹ Indicators of hyd	ric soil and	wetland hyd	drology must
2.					be present.			
	Total Cover:				Hydrophytic Vegetation			
% Bare Ground in Herb Stratum	% Cover 0	of Biotic C	Crust	<u>%</u>	Present?	Yes 🔘	No 💿	
Nellaiks.								

SOIL Sampling Point: $\underline{U92}$

Profile Des	cription: (Describe t	o the depth nee	ded to docur	nent the i	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			Features				
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	2.5 YR 2.5/3						clay loam	gravel and large rocks present
¹ Type: C=C	Concentration, D=Deple	etion, RM=Reduc	ced Matrix. CS	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable	e to all LRRs, unle	ess otherwise	noted.)			Indicators	for Problematic Hydric Soils: 3
Histoso			Sandy Redox					Muck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
Black F	listic (A3)		Loamy Muc	ky Minera	l (F1)			ed Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)								arent Material (TF2)
	ed Layers (A5) (LRR C)	Depleted M				Other	(Explain in Remarks)
	uck (A9) (LRR D)	(444)	Redox Dark		. ,			
	ed Below Dark Surface	(A11)	Depleted Da		` '		3 Indicators	of hydrophytic vegetation and
	Park Surface (A12) Mucky Mineral (S1)		Redox Depi Vernal Pool		F8)			hydrology must be present.
	Gleyed Matrix (S4)		J Vernai Fooi	5 (19)			unless	distributed or problematic
	Layer (if present):							
Type:du:								
Depth (ir	-						Hydric Soil	Present? Yes No •
		urface in many	araac currou	nding th	is data no	oint Soil	-	unds were slightly deeper than in
	wale like features; h					ли. 3 0п	on top or mo	unds were slightly deeper than in
3	wate fixe features, fi	lowever, they h	iau siiiiiai C	nar acteri	istics.			
HYDROLO	OGY							
Wetland Hy	/drology Indicators:							
Primary Ind	icators (minimum of or	ne required; chec	k all that appl	y)			Secon	ndary Indicators (2 or more required)
Surface	Water (A1)	Γ	Salt Crust	(B11)			\	Vater Marks (B1) (Riverine)
High W	ater Table (A2)	Ī	Biotic Crus	st (B12)				Sediment Deposits (B2) (Riverine)
Saturat	ion (A3)	Ī	Aquatic In	ertebrate/	es (B13)			Prift Deposits (B3) (Riverine)
Water I	Marks (B1) (Nonriverii	ne)	Hydrogen	Sulfide O	dor (C1)			Prainage Patterns (B10)
Sedime	ent Deposits (B2) (Non	riverine)	Oxidized F	Rhizosphe	res along	Living Roo	ots (C3)	ry-Season Water Table (C2)
Drift De	eposits (B3) (Nonriver i	ine)	Presence	of Reduce	ed Iron (C4	1)	C	crayfish Burrows (C8)
Surface	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6)	aturation Visible on Aerial Imagery (C9)
Inundat	tion Visible on Aerial In	nagery (B7)	Thin Muck	Surface (C7)		S	hallow Aquitard (D3)
Water-S	Stained Leaves (B9)		Other (Exp	lain in Re	marks)		F	AC-Neutral Test (D5)
Field Obse	rvations:							
Surface Wa	ter Present? Ye	es O No 💿	Depth (in	ches):				
Water Table	e Present? Ye	es O No 💿	Depth (in	ches):				
Saturation F	Present? Ye	es O No 💿	Depth (in	ches):		<u> </u>		
	pillary fringe)		المستحد المستحد		outours late			y Present? Yes No •
Describe Re	ecorded Data (stream	gauge, monitorin	g weii, aerial p	motos, pr	evious ins	pections),	ıı avalladle:	
Remarks:								

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Co	ounty:Butte		San	npling Date:	11-11-14	4
Applicant/Owner:B. Brouhard					State:CA	San	npling Point:	U93	
Investigator(s): D. Machek, E. Gregg	•		Section	n, Township, Ra	ange: S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terra	ace		Local	relief (concave,	convex, none):conv	vex	SI	ope (%):3	i
Subregion (LRR):C - Mediterranean	California	Lat:39.7	714710)	Long:-121.7763	93	Dat	um:WGS	3 84
Soil Map Unit Name: Doemill-Jokerst	t, 3 to 8 percent slo	pes			NWI cl	assification	:Upland		
Are climatic / hydrologic conditions on t	he site typical for this	time of ye	ear? Ye	es No ((If no, explai	n in Rema	rks.)		
Are Vegetation Soil or F	Hydrology sig	gnificantly	disturb	ed? Are	"Normal Circumstan	ices" prese	nt? Yes) No	
Are Vegetation Soil or F	Hydrology na	aturally pro	oblemat	tic? (If no	eeded, explain any a	answers in	Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map s	howing	samp	oling point le	ocations, trans	ects, im	portant fe	eatures.	, etc.
Hydrophytic Vegetation Present?	Yes No	•							
Hydric Soil Present?	Yes No	•		Is the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		within a Wetla	nd? Yes		No 💿		
VEGETATION									
Tree Stratum (Use scientific names.		Absolute % Cover		nant Indicator es? Status	Dominance Test				
1.		70 OOVCI	Орсск	Co: Otatus	Number of Domir That Are OBL, FA			1	(A)
2.					-			1	(* ')
3.					Total Number of I Species Across A			2	(B)
4.					- Percent of Domin		0		,
Ocal Card Obards Ottatura	Total Cover:	%			That Are OBL, FA			0.0 %	(A/B)
Sapling/Shrub Stratum					Prevalence Inde	v worksho	ot:		
12.					Total % Cove			oly by:	
3.					OBL species	<i>51</i> 01.	x 1 =	0	
4.					FACW species		x 2 =	0	
5.					FAC species	35	x 3 =	105	
	Total Cover:	%			FACU species	35	x 4 =	140	
Herb Stratum					UPL species	30	x 5 =	150	
1. Elymus caput medusae		30	Yes	Not Listed	Column Totals:	100	(A)	395	(B)
2.Erodium botrys		35	Yes	FAC	Prevalence	Indox - B	/Λ _	3.95	
3. Festuca bromoides		10	No	FACU	Hydrophytic Veg			3.93	
4.Trichostema lanceolatum 5.Bromus hordeaceous		10	No	FACU	Dominance 1				
6.		15	No	FACU	Prevalence I				
7.					Morphologica			e supporti	ing
8.					data in Re	emarks or o	n a separat	e sheet)	
	Total Cover:	100%			Problematic	Hydrophyti	c Vegetation	າ ¹ (Explain	1)
Woody Vine Stratum		100%			1				
1. 2.					¹ Indicators of hydbe be present.	dric soil an	d wetland h	ydrology i	must
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum	0 % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes 〇	No (•	
Remarks:					-1				

SOIL Sampling Point: $\underline{\text{U93}}$

Profile Des	scription: (Describe t	to the depth nee				or confirn	n the absence of in	dicators.)
Depth (inches)	Matrix	0/		x Features		1002	Toytura	Damarka
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	2.5 YR 2.5/3						Clay loam	
	_							
	-							
1- 0			184 () 0				21	action D. Dave Lining M. Matrix
Type: C=0	Concentration, D=Depl	letion, RM=Reduc	ced Matrix. C	S=Covered	d or Coate	d Sand Gi	rains Lo	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicabl	e to all LRRs. unl	ess otherwise	e noted.)			Indicators for Pro	oblematic Hydric Soils: 3
Histoso			Sandy Redo	-				(A9) (LRR C)
Histic E	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Muck ((A10) (LRR B)
	Histic (A3)		Loamy Mud				Reduced Ve	
	gen Sulfide (A4)	.,	Loamy Gle		(F2)		—	Material (TF2)
	ed Layers (A5) (LRR C Muck (A9) (LRR D)	·)	Depleted M	, ,	(E6)		Uther (Expia	ain in Remarks)
	ed Below Dark Surface	(A11)	Depleted D		. ,			
	Dark Surface (A12)	[Redox Dep		. ,			drophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Poo	ls (F9)				ology must be present.
	Gleyed Matrix (S4)						unless distrib	outed or problematic
Restrictive	Layer (if present):							
Type:								
Depth (i	<i>'</i>						Hydric Soil Pres	ent? Yes No 💿
Remarks: t	pedrock located at 12	2 inches, large	amounts of	lava rock	scattered	d near su	rtace	
HYDROL	OGY							
Wetland H	ydrology Indicators:							
	licators (minimum of or	ne required; chec	k all that app	ly)			Secondary	Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crust	(B11)			Water	Marks (B1) (Riverine)
High W	/ater Table (A2)	Ī	Biotic Cru	st (B12)			Sedime	ent Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic In	vertebrate	s (B13)		Drift De	eposits (B3) (Riverine)
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Draina	ge Patterns (B10)
Sedime	ent Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizosphe	res along	Living Roo	ots (C3) Dry-Se	ason Water Table (C2)
l <u>—</u>	eposits (B3) (Nonriver	rine)	Presence		,	,		h Burrows (C8)
=	e Soil Cracks (B6)		Recent Iro			ed Soils (′ <u></u>	tion Visible on Aerial Imagery (C9)
l 🖃	tion Visible on Aerial I	magery (B7)	Thin Muck	,	,			v Aquitard (D3)
	Stained Leaves (B9)	L	Other (Exp	olain in Re	marks)		FAC-N	eutral Test (D5)
Field Obse		O N. O	Describe Co.	-1				
		es No No		· —				
Water Tabl	_	es No 💿	Depth (in	· —				
Saturation (includes ca	Present? Υ _ε apillary fringe)	es No 💿	Depth (in	ches):		Wetl	and Hydrology Pre	sent? Yes O No 💿
	ecorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge			City/Coun	ty:Butte		Sam	pling Date: 1	-19-15	
Applicant/Owner: B. Brouhard					State:CA	Sam	pling Point:U	194	
Investigator(s):D. Machek, E. Gregg			Section, 7	Γownship, Ra	ange:S 32, T 22N,	R 2E			
Landform (hillslope, terrace, etc.): terrace			Local reli	ef (concave,	convex, none):none	;	Slop	oe (%):2	
Subregion (LRR) C - Mediterranean Cal	ifornia	Lat:39.7	713459		Long:-121.77895	52	Datu	n:WGS	84
Soil Map Unit Name: Doemill-Jokerst, 3	to 8 percent slo	pes			NWI cla	assification	:Upland		
Are climatic / hydrologic conditions on the s	site typical for this	time of ye	ar? Yes (No ((If no, explain	n in Remar	ks.)		
Are Vegetation Soil or Hydro	ology sig	nificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 💿	No	\circ
Are Vegetation Soil or Hydro	ology na	turally pro	oblematic?	(If n	eeded, explain any a	nswers in I	Remarks.)		
SUMMARY OF FINDINGS - Attac	ch site map sl	nowing	sampli	ng point l	ocations, transe	ects, imp	ortant fea	atures,	etc.
Hydrophytic Vegetation Present?	Yes No	•							
, , , ,	Yes No		Is	the Sample	d Area				
Wetland Hydrology Present?	Yes No	•		thin a Wetla		\bigcirc	No 💿		
Remarks:									
VEGETATION									
VEGETATION		bsolute	Dominan	t Indicator	Dominance Test	workshoo	4-		
Tree Stratum (Use scientific names.)			Species?		Number of Domin				
1					That Are OBL, FA			((A)
2					Total Number of D	Oominant			
3				_	Species Across A		2		(B)
4				_	Percent of Domina	ant Species	8		
Sapling/Shrub Stratum	Total Cover:	%			That Are OBL, FA	CW, or FA	C: 0.0) % (A/B)
1.					Prevalence Index	workshe	et:		
2.					Total % Cove	r of:	Multiply	/ by:	
3.					OBL species		x 1 =	0	
4.					FACW species		x 2 =	0	
5					FAC species		x 3 =	0	
Herb Stratum	Total Cover:	%			FACU species	10	x 4 =	40	
1.Centaurea solstitialis		70	Yes	UPL	UPL species	90	x 5 =	450	4-1
2.Elymus caput medusae		20	Yes	UPL	Column Totals:	100	(A)	490	(B)
3. Erodium botrys		10	105	FACU	Prevalence	Index = B/	A =	4.90	
4.	 -				Hydrophytic Veg	etation Inc	dicators:		
5.				_	Dominance T	est is >50%	6		
6.					Prevalence Ir				
7.					Morphologica	l Adaptatio	ns¹ (Provide n a separate	supportir	ng
8					- Problematic H				١
Woody Vine Stratum	Total Cover:	100%				iya.opiiyac	, vogotation	(Explain)	,
					¹ Indicators of hyd	ric soil and	d wetland hy	drology n	nust
1. 2.					be present.		•	0,	
	Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 0	% Cover of	of Biotic C	rust	%	Vegetation Present?	Yes (No 🖲		
Remarks:	<u> </u>								

SOIL Sampling Point: $\underline{\mathrm{U94}}$

Profile Des	scription: (Describe t	to the depth nee	ded to docu	ment the i	ndicator	or confirn	n the absence of	indicators.)			
Depth	Matrix			x Features							
(inches)	Color (moist)		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-4	7.5 YR 3/2						Clay loam	gravel present			
	_										
								_			
							-				
¹ Type: C=	Concentration, D=Depl	etion, RM=Redu	ced Matrix. C	S=Covered	d or Coate	d Sand G	rains	² Location: PL=Pore Lining, M=Matrix.			
Headain Onli	La dia dana (Anadia abi	- (II I DD		()				Double of the late Oatle 3			
Hydric Soil Histos	Indicators: (Applicable	e to all LRRS, uni	Sandy Redo					Problematic Hydric Soils: 3 ck (A9) (LRR C)			
l <u>—</u>	Epipedon (A2)	<u> </u>	Stripped Ma	` '				ck (A10) (LRR B)			
	Histic (A3)	-	Loamy Muc	, ,	l (F1)			Vertic (F18)			
	gen Sulfide (A4)		Loamy Gle					ent Material (TF2)			
Stratifi	ed Layers (A5) (LRR C	;)	Depleted M	atrix (F3)			Other (E)	xplain in Remarks)			
	Muck (A9) (LRR D)		Redox Darl		. ,						
ı Ш	ed Below Dark Surface	e (A11)	Depleted D		, ,		3 Indicators of	hydrophytic vegetation and			
	Dark Surface (A12)		Redox Dep	,	F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present.				
	Mucky Mineral (S1)		Vernal Poo	ls (F9)			unless distributed or problematic				
	Gleyed Matrix (S4) e Layer (if present):							·			
Type:	e Layer (ii present).										
Depth (i	inchas):						Hydric Soil Pr	resent? Yes No 🖲			
Remarks:							Hydric 30ii Fi	esent: les No (e			
Nemarks.											
HYDROL	OGY										
Wetland H	lydrology Indicators:										
Primary Inc	dicators (minimum of or	ne required; chec	k all that appl	y)				ry Indicators (2 or more required)			
Surfac	e Water (A1)		Salt Crust	(B11)			Wa	ter Marks (B1) (Riverine)			
High V	Vater Table (A2)		Biotic Cru	st (B12)			Sed	liment Deposits (B2) (Riverine)			
Satura	ition (A3)		Aquatic In	vertebrate	s (B13)		Drift	Deposits (B3) (Riverine)			
Water	Marks (B1) (Nonriveri	ne)	Hydrogen	Sulfide O	dor (C1)		Drai	inage Patterns (B10)			
Sedim	ent Deposits (B2) (Nor	nriverine)	Oxidized I	Rhizosphe	res along	Living Roo	ots (C3) Dry-	-Season Water Table (C2)			
Drift D	eposits (B3) (Nonriver	ine)	Presence	of Reduce	ed Iron (C4	ł)	Cray	yfish Burrows (C8)			
Surfac	e Soil Cracks (B6)		Recent Iro	n Reducti	on in Plow	ed Soils (C6) Satı	uration Visible on Aerial Imagery (C9)			
Inunda	ation Visible on Aerial Ir	magery (B7)	Thin Muck	Surface (C7)		Sha	llow Aquitard (D3)			
Water-	-Stained Leaves (B9)		Other (Exp	olain in Re	marks)		FAC	C-Neutral Test (D5)			
Field Obse		_									
Surface Wa	ater Present? Ye	es No 💿	Depth (in	ches):							
Water Tabl	le Present? Ye	es No 💿	Depth (in	ches):							
Saturation		es O No 💿	Depth (in	ches):		Most	and Hydrology F	Present? Yes No (•)			
	apillary fringe) Recorded Data (stream	gauge, monitorin	g well, aerial	photos, pr	evious ins			resent? res No G			
2 2 2 3 1 1 0 1 1	222.000 2010 (01100111	gg.c,	, aonai	pi		- 505110),	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3				
Remarks:											
/ tomanto.											

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: The Valley's Edge		City/C	ounty:Butte		Sampling Date: 1	l-19-15
Applicant/Owner: B. Brouhard				State:CA	Sampling Point:	J95
Investigator(s):D. Machek, E. Gregg		Section	on, Township, Ra	nge:S 32, T 22N, R 2	E _	
Landform (hillslope, terrace, etc.): fan te	errace	Local	relief (concave,	convex, none):none	Slc	pe (%):5
Subregion (LRR):C - Mediterranean C	California Lat:39	9.71334	1	Long:-121.781265	 Datu	um:WGS 84
Soil Map Unit Name: Redtough-Redsv	vale, 0-2 % slopes			NWI classif	ication:Upland	
Are climatic / hydrologic conditions on th	e site typical for this time of	year? Y	es No ((If no, explain in	Remarks.)	
Are Vegetation Soil or Hy	ydrology significan	ıtly disturl	bed? Are	'Normal Circumstances"	present? Yes •	No 🔘
Are Vegetation Soil or Hy	ydrology naturally	problema	atic? (If ne	eeded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - At	tach site map showir	ng sam	pling point lo	ocations, transects	s, important fe	atures, etc.
Hydrophytic Vegetation Present?	Yes No •					
Hydric Soil Present?	Yes No •		Is the Sampled	l Area		
Wetland Hydrology Present?	Yes No No		within a Wetlar		No 💿	
Remarks:						
VEGETATION						
Tree Stratum (Use scientific names.)	Absolut % Cove		nant Indicator ies? Status	Dominance Test wor		
1.	70 0000	<u> </u>	otatus	Number of Dominant 3 That Are OBL, FACW) (A)
2.				-		(1)
3.				 Total Number of Domi Species Across All Str) (B)
4.				Percent of Dominant S	Species	
Sapling/Shrub Stratum	Total Cover:	%		That Are OBL, FACW) % (A/B)
1.				Prevalence Index wo	orksheet:	
2.				Total % Cover of:	Multip	ly by:
3.				OBL species	x 1 =	0
4.				FACW species	x 2 =	0
5				FAC species	x 3 =	0
Llorb Ctrotum	Total Cover:	%		FACU species	x 4 =	0
Herb Stratum 1.				UPL species	x 5 =	0
2.				Column Totals:	(A)	0 (B)
3.				Prevalence Inde	ex = B/A =	
4.				Hydrophytic Vegetat	ion Indicators:	
5.				Dominance Test i		
6.				Prevalence Index		
7					laptations ¹ (Provide ks or on a separate	supporting sheet)
8					ophytic Vegetation	-
Woody Vine Stratum	Total Cover:	%				
1				¹ Indicators of hydric s be present.	oil and wetland hy	/drology must
2				Hydrophytic		
		%		Vegetation		
	% Cover of Biotic	_	%		es No 🗨)
Remarks: debris present in bare gr	ound. Upland sample po	ınt locat	ted at toe of a le	evee.		

SOIL Sampling Point: $\underline{U95}$

Profile Des	scription: (Describe	to the depth n	eeded to docu	ment the	indicator	or confirm	n the absence of	findicators.)
Depth	Matrix			x Features			_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	7.5 YR 2.5/2						loam	fine sand present
	_							_
	_							
-	_							
	_							
								_
¹ Type: C=0	Concentration, D=Dep	oletion, RM=Re	duced Matrix. C	S=Covere	d or Coate	d Sand Gr	rains	² Location: PL=Pore Lining, M=Matrix.
Hvdric Soil	Indicators: (Applicat	ole to all LRRs.	unless otherwis	e noted.)			Indicators for	Problematic Hydric Soils: 3
Histos		,	Sandy Redo					ck (A9) (LRR C)
Histic I	Epipedon (A2)		Stripped M	atrix (S6)			2 cm Mu	ck (A10) (LRR B)
Black I	Histic (A3)		Loamy Mu	cky Minera	l (F1)			Vertic (F18)
	gen Sulfide (A4)		Loamy Gle		(F2)			ent Material (TF2)
	ed Layers (A5) (LRR	C)	Depleted N	` ,			Other (E	xplain in Remarks)
	Muck (A9) (LRR D)	- (0.4.4)	Redox Dar		. ,			
	ed Below Dark Surfac Dark Surface (A12)	ce (A11)	Depleted D		` '		3 Indicators of	hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	,	го)		wetland h	ydrology must be present.
	Gleyed Matrix (S4)		vernari oc	//3 (1 J)			unless dis	stributed or problematic
	Layer (if present):							
Type:	, ,							
Depth (i	nches):		_				Hydric Soil P	resent? Yes No No
Remarks:							,	
Tromano.								
HYDROL	OGY							
Wetland H	ydrology Indicators	:						
Primary Inc	dicators (minimum of o	one required; ch	eck all that app	ly)				ary Indicators (2 or more required)
Surfac	e Water (A1)		Salt Crus	t (B11)			Wa	iter Marks (B1) (Riverine)
High W	Vater Table (A2)		Biotic Cru	ıst (B12)			Sec	diment Deposits (B2) (Riverine)
Satura	tion (A3)		Aquatic Ir	nvertebrate	es (B13)		Drif	t Deposits (B3) (Riverine)
Water	Marks (B1) (Nonrive	rine)	Hydrogen	Sulfide O	dor (C1)		Dra	inage Patterns (B10)
Sedim	ent Deposits (B2) (No	onriverine)	Oxidized	Rhizosphe	res along	Living Roc	ots (C3) Dry	-Season Water Table (C2)
Drift D	eposits (B3) (Nonrive	erine)	Presence	of Reduce	ed Iron (C4	l)	Cra	yfish Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent Ire	on Reducti	on in Plow	ed Soils (0	C6) Sat	uration Visible on Aerial Imagery (C9)
Inunda	ation Visible on Aerial	Imagery (B7)	Thin Mucl	k Surface (C7)		Sha	allow Aquitard (D3)
Water-	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	C-Neutral Test (D5)
Field Obse	ervations:							
Surface Wa	ater Present?	res O No	Depth (ir	nches):				
Water Tabl	e Present?	res No	Depth (ir	nches):				
Saturation		res No	Depth (ir	nches):				
	apillary fringe)	a acusa manita	ring wall carial	nhotoo na	aviana ina		and Hydrology I	Present? Yes No No
Describe R	ecorded Data (stream	i gauge, monito	ınıg wen, aerial	priotos, pr	evious ins	pections),	ıı available:	
D								
Remarks:								

Appendix B: Soils Map and Soil Series Descriptions



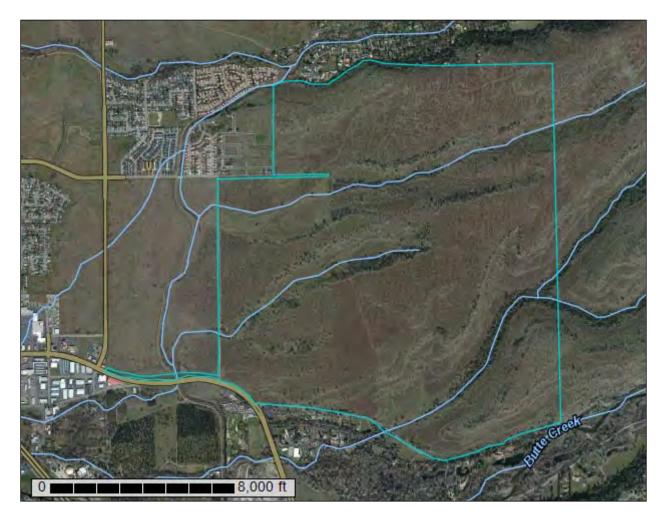
Natural Resources Conservation

Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Butte Area, California, Parts of Butte and Plumas Counties

Valley's Edge



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

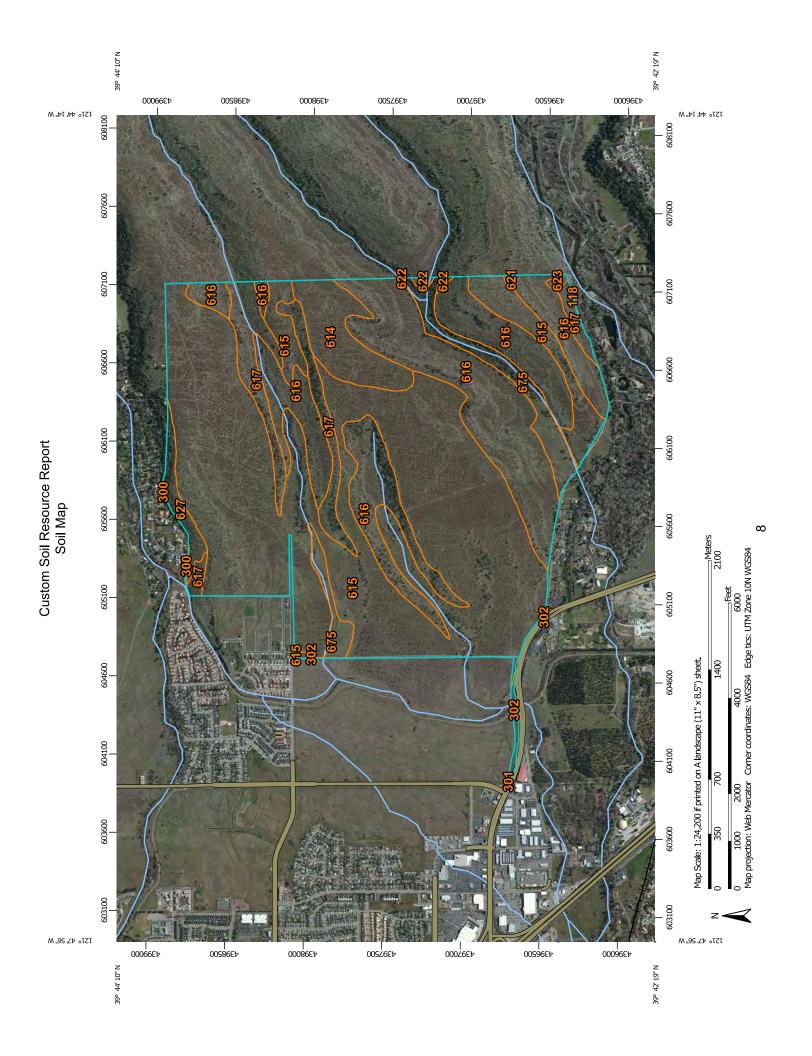
While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Special Line Features Streams and Canals Interstate Highways Aerial Photography Very Stony Spot Major Roads Local Roads US Routes Stony Spot Spoil Area Wet Spot Other Rails Water Features Transportation **Background** 8 ŧ Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Miscellaneous Water Soil Map Unit Lines Closed Depression Marsh or swamp Perennial Water Mine or Quarry Special Point Features **Gravelly Spot** Rock Outcrop Saline Spot Lava Flow **Borrow Pit** Gravel Pit Clay Spot Area of Interest (AOI) Blowout Landfill 9 Soils

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

Soil Survey Area: Butte Area, California, Parts of Butte and Plumas Counties

Survey Area Data: Version 11, Sep 17, 2014

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

Date(s) aerial images were photographed: Aug 5, 2011—Apr 29, 2012

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

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Sandy Spot

Map Unit Legend

Butte Area, California, Parts of Butte and Plumas Counties (CA612)				
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
118	Xerorthents, Tailings and 0 to 50 percent slopes	0.2	0.0%	
300	Redsluff gravelly loam, 0 to 2 percent slopes	1.0	0.1%	
301	Wafap-Hamslough , 0 to 2 percent slopes	0.0	0.0%	
302	Redtough-Redswale , 0 to 2 percent slopes	6.1	0.4%	
614	Doemill-Jokerst , 0 to 3 percent slopes	64.6	4.4%	
615	Doemill-Jokerst , 3 to 8 percent slopes	801.7	55.2%	
616	Jokerst-Doemill-Typic Haploxeralfs , 8 to 15 percent slopes	403.3	27.8%	
617	Jokerst-Doemill-Typic Haploxeralfs , 15 to 30 percent slopes	87.8	6.0%	
621	Doemill-Jokerst-Ultic Haploxeralfs, thermic complex, 8 to 15 percent slopes	1.3	0.1%	
622	Xerorthents, shallow-Typic Haploxeralfs-Rock outrcrop, cliffs complex, 15 to 30 percent slopes	3.0	0.2%	
623	Xerorthents, shallow-Typic Haploxeralfs-Rock outcrop, cliffs complex, 30 to 50 percent slopes	1.9	0.1%	
627	Ultic Haploxeralfs-Rockstripe- Rock outcrop, cliffs , 50 to 70 percent slopes	19.4	1.3%	
675	Clearhayes-Hamslough , 0 to 2 percent slopes	62.8	4.3%	
Totals for Area of Interest		1,453.0	100.0%	

Map Unit Descriptions

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

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or

anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Butte Area, California, Parts of Butte and Plumas Counties

118—Xerorthents, Tailings and 0 to 50 percent slopes

Map Unit Setting

National map unit symbol: hgxl Elevation: 90 to 1,340 feet

Mean annual precipitation: 21 to 50 inches Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 240 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Xerorthents and similar soils: 80 percent

Minor components: 20 percent

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

Description of Xerorthents

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Dredged spoil piles from gravelly alluvium derived from igneous,

metamorphic and sedimentary rock

Typical profile

A - 0 to 3 inches: very gravelly sandy loam

AC - 3 to 8 inches: extremely gravelly sandy loam

C1 - 8 to 21 inches: loamy sand C2 - 21 to 26 inches: loamy sand C3 - 26 to 35 inches: loamy sand

C4 - 35 to 48 inches: loamy coarse sand

C5 - 48 to 59 inches: loamy sand C6 - 59 to 81 inches: loamy sand

Properties and qualities

Slope: 0 to 50 percent

Percent of area covered with surface fragments: 0.0 percent

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

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 4.25 in/hr)

Depth to water table: About 60 to 80 inches

Frequency of flooding: Occasional Frequency of ponding: None

Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

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

Hydrologic Soil Group: A

Minor Components

Pits, water-filled

Percent of map unit: 5 percent Landform: Flood plains

Unnamed, riparian areas

Percent of map unit: 5 percent Landform: Flood plains

Xeropsamments, tailings

Percent of map unit: 3 percent Landform: Flood plains

Xerofluvents, tailings

Percent of map unit: 3 percent Landform: Flood plains

Haploxeralfs, terrace

Percent of map unit: 2 percent Landform: Stream terraces

Unnamed, duripan

Percent of map unit: 2 percent

Landform: Terraces

300—Redsluff gravelly loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hh0t Elevation: 180 to 400 feet

Mean annual precipitation: 24 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Redsluff, gravelly loam, and similar soils: 80 percent

Minor components: 20 percent

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

Description of Redsluff, Gravelly Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Fine-loamy alluvium derived from igneous, metamorphic and

sedimentary rock over gravelly alluvium derived from volcanic rock

Typical profile

Ap - 0 to 2 inches: gravelly loam
Bt1 - 2 to 5 inches: gravelly loam
Bt2 - 5 to 12 inches: gravelly clay loam
Bt3 - 12 to 21 inches: gravelly loam
Bt4 - 21 to 29 inches: gravelly loam
Bt5 - 29 to 37 inches: gravelly loam

Bt6 - 37 to 42 inches: extremely gravelly sandy loam Cq - 42 to 80 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.28

to 0.99 in/hr)

Depth to water table: About 35 to 80 inches

Frequency of flooding: Rare Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

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

Hydrologic Soil Group: C

Minor Components

Unnamed, weak cementation below 40 inches

Percent of map unit: 4 percent Landform: Fan terraces

Fernandez, sandy loam

Percent of map unit: 4 percent Landform: Fan terraces

Anita, gravelly duripan

Percent of map unit: 3 percent Landform: Fan terraces

Typic haploxeralfs, very deep

Percent of map unit: 3 percent Landform: Fan terraces

Pachic argixerolls

Percent of map unit: 2 percent Landform: Fan terraces

Munjar

Percent of map unit: 2 percent Landform: Fan terraces

Redtough

Percent of map unit: 2 percent Landform: Fan terraces

301—Wafap-Hamslough, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hgxp Elevation: 150 to 440 feet

Mean annual precipitation: 25 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Wafap, gravelly loam, and similar soils: 70 percent Hamslough, clay, and similar soils: 15 percent

Minor components: 15 percent

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

Description of Wafap, Gravelly Loam

Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Gravelly and clayey alluvium over cobbly channel alluvium over

cemented cobbly and gravelly alluvium derived from volcanic rock

Typical profile

A - 0 to 1 inches: gravelly loam

Bt1 - 1 to 5 inches: cobbly clay loam

Bt2 - 5 to 13 inches: very cobbly clay loam

Bt3 - 13 to 32 inches: extremely cobbly clay loam Bt4 - 32 to 39 inches: extremely cobbly clay loam

Btq - 39 to 46 inches: extremely gravelly sandy clay loam 2Bqm - 46 to 56 inches: cemented cobbly gravelly material

Properties and qualities

Slope: 0 to 2 percent

Percent of area covered with surface fragments: 0.0 percent Depth to restrictive feature: 40 to 60 inches to duripan Natural drainage class: Somewhat poorly drained

Runoff class: Very high

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

low (0.00 to 0.06 in/hr)

Depth to water table: About 13 to 60 inches

Frequency of flooding: Rare Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: C/D

Description of Hamslough, Clay

Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Clayey alluvium over clayey and gravelly alluvium over cemented

cobbly and gravelly alluvium derived from volcanic rock

Typical profile

A1 - 0 to 3 inches: clay

A2 - 3 to 14 inches: cobbly clay

Bw - 14 to 19 inches: extremely gravelly clay Bg - 19 to 27 inches: extremely gravelly sandy clay

2Bqm - 27 to 36 inches: cemented cobbly gravelly material

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to duripan

Natural drainage class: Poorly drained

Runoff class: High

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

low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 80 inches

Frequency of flooding: Occasional Frequency of ponding: Frequent

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm)

Available water storage in profile: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: D

Minor Components

Unnamed, loamy-skeletal, duripan 40 to 60 inches

Percent of map unit: 3 percent Landform: Stream terraces

Unnamed, fine, duripan 40 to 60 inches

Percent of map unit: 3 percent Landform: Stream terraces

Anita, gravelly duripan

Percent of map unit: 2 percent Landform: Stream terraces

Unnamed, fine-loamy, duripan 40 to 60 inches

Percent of map unit: 2 percent

Landform: Stream terraces

Tuscan taxadjunct

Percent of map unit: 2 percent Landform: Stream terraces

Unnamed, frequently flooded

Percent of map unit: 1 percent Landform: Flood plains

Unnamed, frequent long ponding

Percent of map unit: 1 percent Landform: Stream terraces

Microfeatures of landform position: Vernal pools

Oxyaquic argixerolls, very stony

Percent of map unit: 1 percent Landform: Stream terraces

302—Redtough-Redswale, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hh0v Elevation: 200 to 400 feet

Mean annual precipitation: 23 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Redtough, loam, and similar soils: 50 percent

Redswale, cobbly loam, and similar soils: 35 percent

Minor components: 15 percent

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

Description of Redtough, Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread Microfeatures of landform position: Mounds

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

Parent material: Loamy alluvium over cemented cobbly and gravelly alluvium

derived from volcanic rock

Typical profile

A - 0 to 1 inches: loam

Bt1 - 1 to 7 inches: gravelly loam
Bt2 - 7 to 13 inches: very cobbly loam

Bgm - 13 to 23 inches: cemented very gravelly material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 10 to 20 inches to duripan Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00

in/hr)

Depth to water table: About 2 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Description of Redswale, Cobbly Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread Microfeatures of landform position: Swales

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

Parent material: Cobbly and loamy alluvium over cemented cobbly and gravelly

alluvium derived from volcanic rock

Typical profile

A - 0 to 1 inches: cobbly loam

Bt - 1 to 7 inches: very cobbly loam

Bqm - 7 to 17 inches: cemented very gravelly material

Properties and qualities

Slope: 0 to 3 percent

Percent of area covered with surface fragments: 0.0 percent

Depth to restrictive feature: 4 to 10 inches to duripan

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00

in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None Frequency of ponding: Frequent

Available water storage in profile: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): 8 Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Minor Components

Redswale, frequent long flooding

Percent of map unit: 3 percent

Landform: Fan terraces

Microfeatures of landform position: Swales

Unnamed, frequent long ponding

Percent of map unit: 3 percent Landform: Fan terraces

Landionii. Tan tenaces

Microfeatures of landform position: Vernal pools

Tuscan

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Munjar

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Abruptic durixeralfs

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Anita, gravelly duripan

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Swales

Unnamed, riser slopes

Percent of map unit: 1 percent Landform: Fan terraces

614—Doemill-Jokerst, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: hgzk

Elevation: 160 to 520 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Doemill, gravelly loam, and similar soils: 50 percent Jokerst, very cobbly loam, and similar soils: 40 percent

Minor components: 10 percent

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

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest Microfeatures of landform position: Mounds

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam Bt1 - 1 to 5 inches: gravelly loam Bt2 - 5 to 9 inches: gravelly loam Bt3 - 9 to 14 inches: gravelly loam R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 2 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6s Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest Microfeatures of landform position: Swales

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam
Bt - 1 to 4 inches: gravelly loam
R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: Frequent Frequency of ponding: Frequent

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8 Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 5 percent

Landform: Ridges

Lithic xerorthents

Percent of map unit: 3 percent

Landform: Ridges

Unnamed, frequent long ponding

Percent of map unit: 2 percent

Landform: Ridges

Microfeatures of landform position: Vernal pools

615—Doemill-Jokerst, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: hgzm Elevation: 160 to 1,000 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Doemill, gravelly loam, and similar soils: 50 percent Jokerst, very cobbly loam, and similar soils: 40 percent

Minor components: 10 percent

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

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest

Microfeatures of landform position: Mounds

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam Bt1 - 1 to 5 inches: gravelly loam Bt2 - 5 to 9 inches: gravelly loam Bt3 - 9 to 14 inches: gravelly loam R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 2 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest Microfeatures of landform position: Swales

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam

Bt - 1 to 4 inches: gravelly loam

R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: Frequent Frequency of ponding: Frequent

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 6 percent

Landform: Ridges

Lithic xerorthents

Percent of map unit: 3 percent

Landform: Ridges

Unnamed, frequent long ponding

Percent of map unit: 1 percent

Landform: Ridges

Microfeatures of landform position: Vernal pools

616—Jokerst-Doemill-Typic Haploxeralfs, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: hgzj Elevation: 160 to 1,120 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Doemill, gravelly loam, and similar soils: 35 percent Jokerst, very cobbly loam, and similar soils: 35 percent

Typic haploxeralfs, gravelly loam, and similar soils: 15 percent

Minor components: 15 percent

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

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam

Bt - 1 to 4 inches: gravelly loam R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8 Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam Bt1 - 1 to 5 inches: gravelly loam Bt2 - 5 to 9 inches: gravelly loam Bt3 - 9 to 14 inches: gravelly loam R - 14 to 23 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 4 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Description of Typic Haploxeralfs, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Side slope

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

Parent material: Loamy colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly loam

Bt1 - 2 to 8 inches: gravelly clay loam

Bt2 - 8 to 16 inches: very gravelly clay loam

Bt3 - 16 to 27 inches: very gravelly clay loam

Bt4 - 27 to 40 inches: very gravelly clay loam

2Cr - 40 to 50 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 4.0 percent

Depth to restrictive feature: 20 to 60 inches to lithic bedrock; 20 to 60 inches to

paralithic bedrock

Natural drainage class: Well drained

Runoff class: Medium

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

moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

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

Hydrologic Soil Group: C

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 10 percent

Landform: Ridges

Lithic xerorthents

Percent of map unit: 5 percent

Landform: Ridges

617—Jokerst-Doemill-Typic Haploxeralfs, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: hgym Elevation: 260 to 800 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Doemill, gravelly loam, and similar soils: 35 percent Jokerst, very cobbly loam, and similar soils: 30 percent Typic haploxeralfs, gravelly loam, and similar soils: 20 percent

Minor components: 15 percent

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

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam Bt1 - 1 to 5 inches: gravelly loam Bt2 - 5 to 9 inches: gravelly loam Bt3 - 9 to 14 inches: gravelly loam R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 6 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam

Bt - 1 to 4 inches: gravelly loam

R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Description of Typic Haploxeralfs, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly loam

Bt1 - 2 to 8 inches: gravelly clay loam

Bt2 - 8 to 16 inches: very gravelly clay loam

Bt3 - 16 to 27 inches: very gravelly clay loam

Bt4 - 27 to 40 inches: very gravelly clay loam

2Cr - 40 to 50 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent

Percent of area covered with surface fragments: 4.0 percent

Depth to restrictive feature: 20 to 60 inches to paralithic bedrock; 20 to 60 inches to

lithic bedrock

Natural drainage class: Well drained

Runoff class: High

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

moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

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

Hydrologic Soil Group: C

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 10 percent

Landform: Ridges

Lithic xerorthents

Percent of map unit: 5 percent

Landform: Ridges

621—Doemill-Jokerst-Ultic Haploxeralfs, thermic complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: hh4k Elevation: 400 to 1.700 feet

Mean annual precipitation: 28 to 40 inches Mean annual air temperature: 61 degrees F

Frost-free period: 255 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Jokerst, very cobbly loam, and similar soils: 30 percent Doemill, gravelly loam, and similar soils: 30 percent

Ultic haploxeralfs, thermic gravelly loam, and similar soils: 20 percent

Minor components: 20 percent

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

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Side slope, crest

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam Bt1 - 1 to 5 inches: gravelly loam Bt2 - 5 to 9 inches: gravelly loam Bt3 - 9 to 14 inches: gravelly loam R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 4 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Crest, side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam
Bt - 1 to 4 inches: gravelly loam
R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Description of Ultic Haploxeralfs, Thermic Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Crest, side slope

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

Parent material: Loamy residuum weathered from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly loam

Bt1 - 2 to 6 inches: very cobbly clay loam Bt2 - 6 to 13 inches: very cobbly clay loam Bt3 - 13 to 21 inches: very cobbly clay loam Bt4 - 21 to 31 inches: very cobbly clay loam

R - 31 to 41 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Percent of area covered with surface fragments: 4.0 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock; 20 to 40 inches to

paralithic bedrock

Natural drainage class: Moderately well drained

Runoff class: High

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

to 0.85 in/hr)

Depth to water table: About 19 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

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

Hydrologic Soil Group: C

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 12 percent

Landform: Ridges

Lithic xerorthents

Percent of map unit: 8 percent

Landform: Ridges

622—Xerorthents, shallow-Typic Haploxeralfs-Rock outrcrop, cliffs complex, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: hh5m Elevation: 200 to 1,500 feet

Mean annual precipitation: 26 to 38 inches Mean annual air temperature: 59 to 63 degrees F

Frost-free period: 250 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Xerorthents, shallow, and similar soils: 40 percent

Typic haploxeralfs, gravelly loam, and similar soils: 30 percent

Rock outcrop, mudflow breccia cliffs: 15 percent

Minor components: 15 percent

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

Description of Xerorthents, Shallow

Setting

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum and/or colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly clay loam

Bt1 - 2 to 5 inches: gravelly clay loam

Bt2 - 5 to 8 inches: very cobbly clay loam

2R - 8 to 18 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent

Percent of area covered with surface fragments: 5.0 percent

Depth to restrictive feature: 2 to 20 inches to paralithic bedrock; 2 to 20 inches to

lithic bedrock

Natural drainage class: Moderately well drained

Runoff class: Very high

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

to 0.71 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Description of Typic Haploxeralfs, Gravelly Loam

Setting

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum and/or colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly loam

Bt1 - 2 to 8 inches: gravelly clay loam

Bt2 - 8 to 16 inches: very gravelly clay loam
Bt3 - 16 to 27 inches: very gravelly clay loam
Bt4 - 27 to 40 inches: very gravelly clay loam

2Cr - 40 to 50 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent

Percent of area covered with surface fragments: 4.0 percent

Depth to restrictive feature: 20 to 60 inches to lithic bedrock; 20 to 60 inches to

paralithic bedrock

Natural drainage class: Well drained

Runoff class: High

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

moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

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

Hydrologic Soil Group: C

Description of Rock Outcrop, Mudflow Breccia Cliffs

Setting

Landform: Canyons

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 8 percent

Landform: Canyons

Lithic haploxeralfs

Percent of map unit: 5 percent

Landform: Canyons

Aquic durixeralfs

Percent of map unit: 2 percent

Landform: Canyons

623—Xerorthents, shallow-Typic Haploxeralfs-Rock outcrop, cliffs complex, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: hh5l Elevation: 300 to 1,500 feet

Mean annual precipitation: 26 to 38 inches Mean annual air temperature: 59 to 63 degrees F

Frost-free period: 250 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Xerorthents, shallow, and similar soils: 40 percent

Typic haploxeralfs, gravelly loam, and similar soils: 25 percent

Rock outcrop, mudfow breccia cliffs: 20 percent

Minor components: 15 percent

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

Description of Xerorthents, Shallow

Settina

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum and/or colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly clay loam

Bt1 - 2 to 5 inches: gravelly clay loam

Bt2 - 5 to 8 inches: very cobbly clay loam

2R - 8 to 18 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent

Percent of area covered with surface fragments: 5.0 percent

Depth to restrictive feature: 2 to 20 inches to paralithic bedrock; 2 to 20 inches to

lithic bedrock

Natural drainage class: Moderately well drained

Runoff class: Very high

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

to 0.71 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Description of Typic Haploxeralfs, Gravelly Loam

Setting

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum and/or colluvium derived from volcanic rock

Typical profile

A - 0 to 2 inches: gravelly loam

Bt1 - 2 to 8 inches: gravelly clay loam

Bt2 - 8 to 16 inches: very gravelly clay loam Bt3 - 16 to 27 inches: very gravelly clay loam

Bt4 - 27 to 40 inches: very gravelly clay loam

2Cr - 40 to 50 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent

Percent of area covered with surface fragments: 4.0 percent

Depth to restrictive feature: 20 to 60 inches to lithic bedrock; 20 to 60 inches to

paralithic bedrock

Natural drainage class: Well drained

Runoff class: High

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

moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Description of Rock Outcrop, Mudfow Breccia Cliffs

Setting

Landform: Canyons

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 10 percent

Landform: Canyons

Lithic haploxeralfs

Percent of map unit: 4 percent

Landform: Canyons

Aquic durixeralfs

Percent of map unit: 1 percent

Landform: Canyons

627—Ultic Haploxeralfs-Rockstripe-Rock outcrop, cliffs, 50 to 70 percent slopes

Map Unit Setting

National map unit symbol: hh5g Elevation: 250 to 2,600 feet

Mean annual precipitation: 26 to 55 inches Mean annual air temperature: 55 to 61 degrees F

Frost-free period: 200 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Ultic haploxeralfs, gravelly loam, and similar soils: 40 percent Rockstripe, very gravelly loam, and similar soils: 35 percent

Rock outcrop, mudflow breccia cliffs: 15 percent

Minor components: 10 percent

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

Description of Ultic Haploxeralfs, Gravelly Loam

Setting

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy colluvium derived from volcanic rock

Typical profile

A - 0 to 4 inches: gravelly loam
Bt1 - 4 to 10 inches: gravelly loam
Bt2 - 10 to 18 inches: gravelly clay loam
Bt3 - 18 to 35 inches: gravelly clay loam
Bt4 - 35 to 48 inches: gravelly clay

Crt - 48 to 58 inches: bedrock

Properties and qualities

Slope: 50 to 70 percent

Percent of area covered with surface fragments: 2.0 percent

Depth to restrictive feature: 20 to 60 inches to lithic bedrock; 20 to 60 inches to

paralithic bedrock

Natural drainage class: Well drained

Runoff class: Medium

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

moderately high (0.06 to 0.28 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Description of Rockstripe, Very Gravelly Loam

Setting

Landform: Canyons

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 2 inches: very gravelly loam Bt1 - 2 to 6 inches: very cobbly loam Bt2 - 6 to 9 inches: cobbly loam R - 9 to 19 inches: bedrock

Properties and qualities

Slope: 50 to 70 percent

Percent of area covered with surface fragments: 7.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

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

(0.57 to 2.83 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Description of Rock Outcrop, Mudflow Breccia Cliffs

Setting

Landform: Canyons

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Minor Components

Tusccoll

Percent of map unit: 3 percent

Landform: Canyons

Schott

Percent of map unit: 3 percent

Landform: Canyons

Lithic haploxeralfs

Percent of map unit: 2 percent

Landform: Canyons

Lithic dystroxerepts

Percent of map unit: 2 percent

Landform: Canyons

675—Clearhayes-Hamslough, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hh6n Elevation: 140 to 400 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Clearhayes, sandy clay loam, and similar soils: 70 percent

Hamslough, clay, and similar soils: 15 percent

Minor components: 15 percent

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

Description of Clearhayes, Sandy Clay Loam

Setting

Landform: Strath terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Fine-loamy alluvium derived from volcanic rock over gravelly

alluvium derived from andesite

Typical profile

A - 0 to 2 inches: sandy clay loam

Bt1 - 2 to 10 inches: gravelly sandy clay loam
Bt2 - 10 to 19 inches: gravelly sandy clay loam
C1 - 19 to 28 inches: extremely gravelly sandy loam
C2 - 28 to 38 inches: extremely gravelly loamy coarse sand
C3 - 38 to 46 inches: extremely gravelly sandy clay loam

2Cr - 46 to 56 inches: bedrock

Properties and qualities

Slope: 0 to 2 percent

Percent of area covered with surface fragments: 0.0 percent Depth to restrictive feature: 40 to 60 inches to paralithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: High

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

(0.02 to 1.98 in/hr)

Depth to water table: About 13 to 60 inches

Frequency of flooding: Occasional Frequency of ponding: None

Calcium carbonate, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: C/D

Description of Hamslough, Clay

Setting

Landform: Strath terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Clayey over gravelly alluvium derived from volcanic rock

Typical profile

A1 - 0 to 3 inches: clay

A2 - 3 to 14 inches: cobbly clay

Bw - 14 to 19 inches: extremely gravelly clay Bg - 19 to 27 inches: extremely gravelly sandy clay

2Bqm - 27 to 37 inches: cemented material

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to duripan; 44 to 88 inches to paralithic

bedrock

Natural drainage class: Poorly drained

Runoff class: High

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

low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 80 inches

Frequency of flooding: Occasional Frequency of ponding: Frequent

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 5.0 mmhos/cm)

Available water storage in profile: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: D

Minor Components

Unnamed, bedrock less than 40 inches

Percent of map unit: 3 percent Landform: Strath terraces

Redsluff taxadjunct

Percent of map unit: 3 percent Landform: Strath terraces

Unnamed, frequently flooded

Percent of map unit: 2 percent Landform: Flood plains

Unnamed, bedrock (lithic) 40 to 60 inches

Percent of map unit: 2 percent Landform: Strath terraces

Anita, gravelly duripan

Percent of map unit: 2 percent Landform: Strath terraces

Typic haploxeralfs, very stony

Percent of map unit: 2 percent

Landform: Canyons

Unnamed, frequent long ponding

Percent of map unit: 1 percent Landform: Strath terraces

Microfeatures of landform position: Vernal pools, channels

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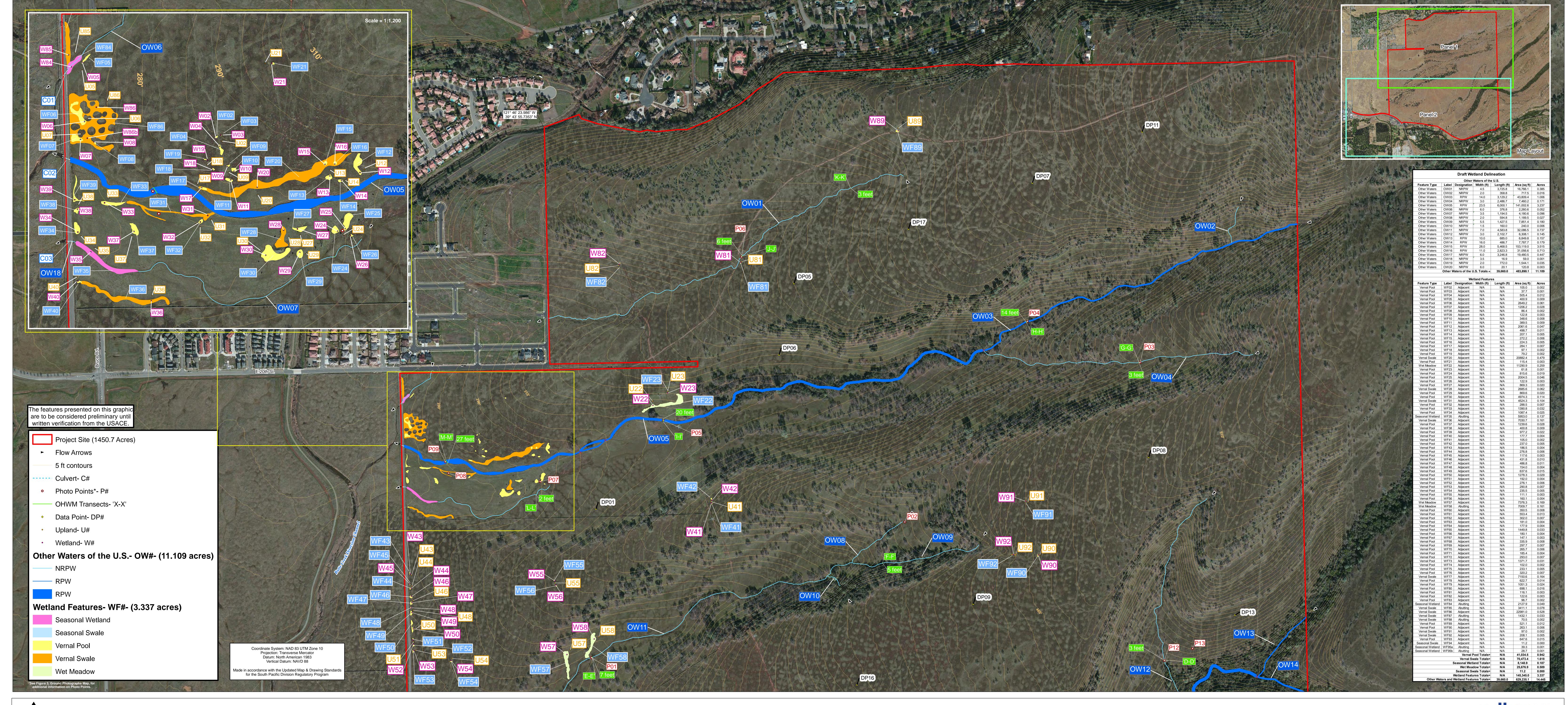
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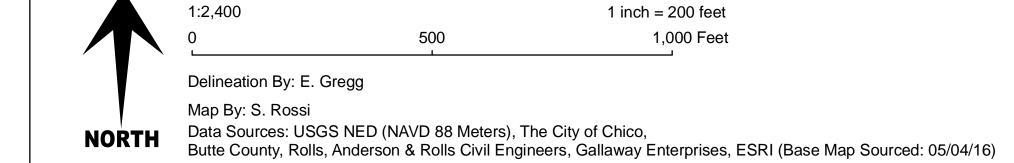
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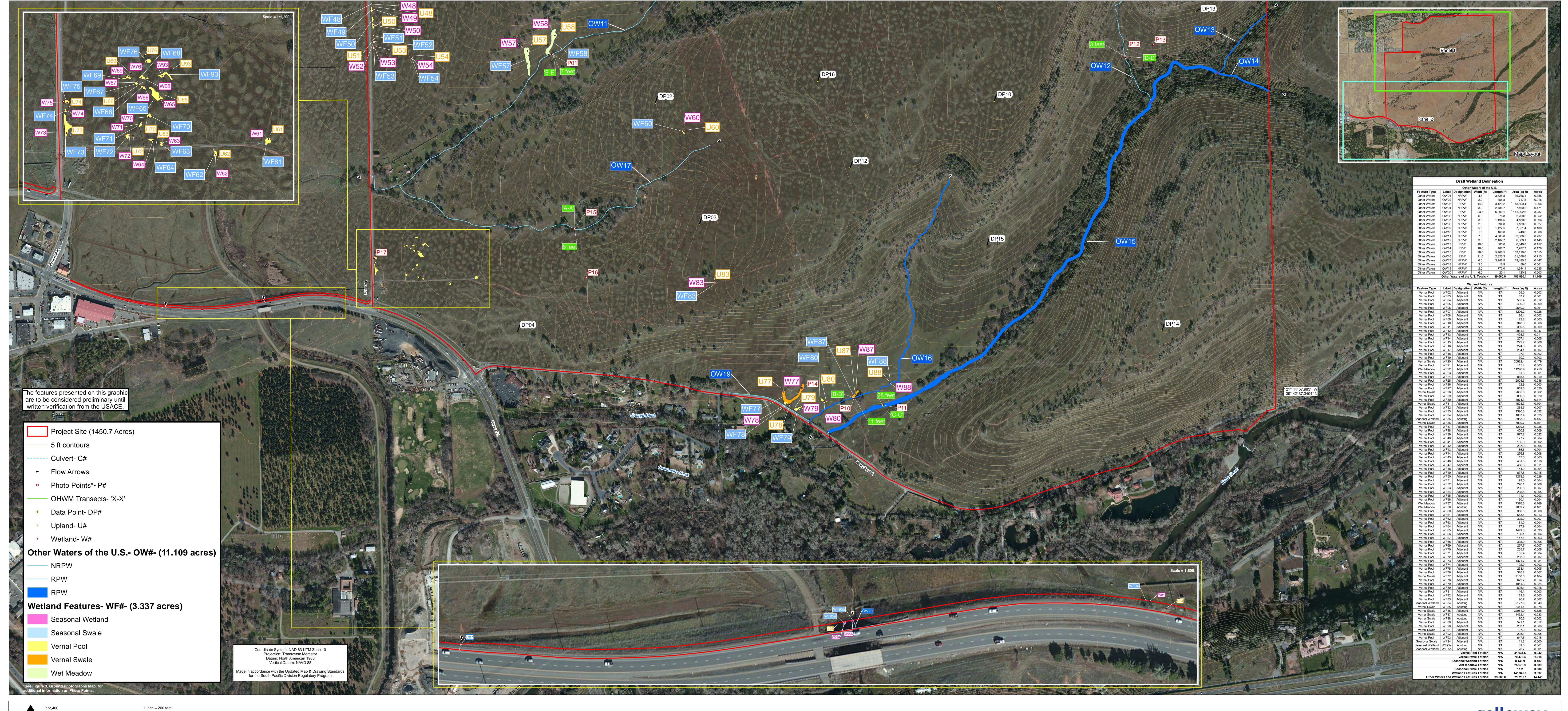
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Attachment A: Draft Delineation of Waters of the U.S. Ma			





gallaway ENTERPRISES GE# 14-108 Map Date: 05/11/16



1:2,400

1 inch = 200 feet

1:2,400

1 inch = 200 feet

1:2,400

Delineation By: E. Gregg

Map By: S. Rossi

Data Sources: USGSNED (NAVD 88 Meters), The City of Chico,
Butte County, Rolls, Anderson & Rolls Civil Engineers, Gallaway Enterprises, ESRI (Base Map Sourced: 05/04/16)

gallaway ENTERPRISES GE# 14-108 Map Date: 05/11/16





Valley's Edge Off-Site Infrastructure Project

Chico, Butte County, California

June 2020



Prepared for:

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Appendix A: Ordinary High Water Mark Data Sheets

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Exhibit A: Draft Delineation of Waters of the United States Maps

DRAFT DELINEATION OF JURISDICTIONAL WATERS OF THE UNITED STATES,

Valley's Edge Off-site Infrastructure Project, Chico, California

Introduction and Project Location

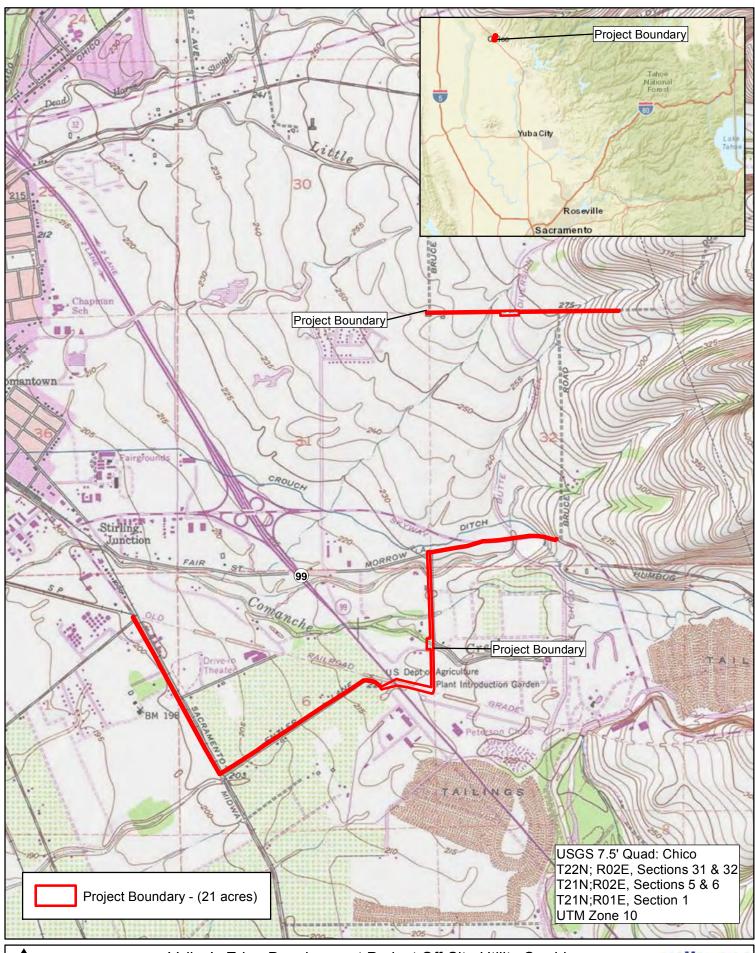
Gallaway Enterprises conducted a delineation of waters of the United States (WOTUS) and aquatic resources for the Valley's Edge Off-site Infrastructure Project (Project) consisting of an approximately 21-acre survey area. The Project is located within the City of Chico, Butte County, California, and consists of four linear segments where underground utilities, water, and sewer are proposed to be installed (Figure 1 and 2). Segment A includes the crossing of an overflow flood channel on 20th Street, segment B travels along Skyway, Morrow Lane, then south on Cramer Lane, until it reaches the abandoned railroad bed, segment C travels west along the railroad bed, under State Highway 99 until it reaches Entler Avenue, Segment D includes the section of the project where the infrastructure will be placed in the paved portion of Entler Avenue which will connect to existing utilities in the Midway. The Project falls within the United States Geological Survey (USGS) Chico Quadrangle, within Section 32, Township 22 N, Range 2 E and Sections 5 and 6, Township 21 N, Range 2 E.

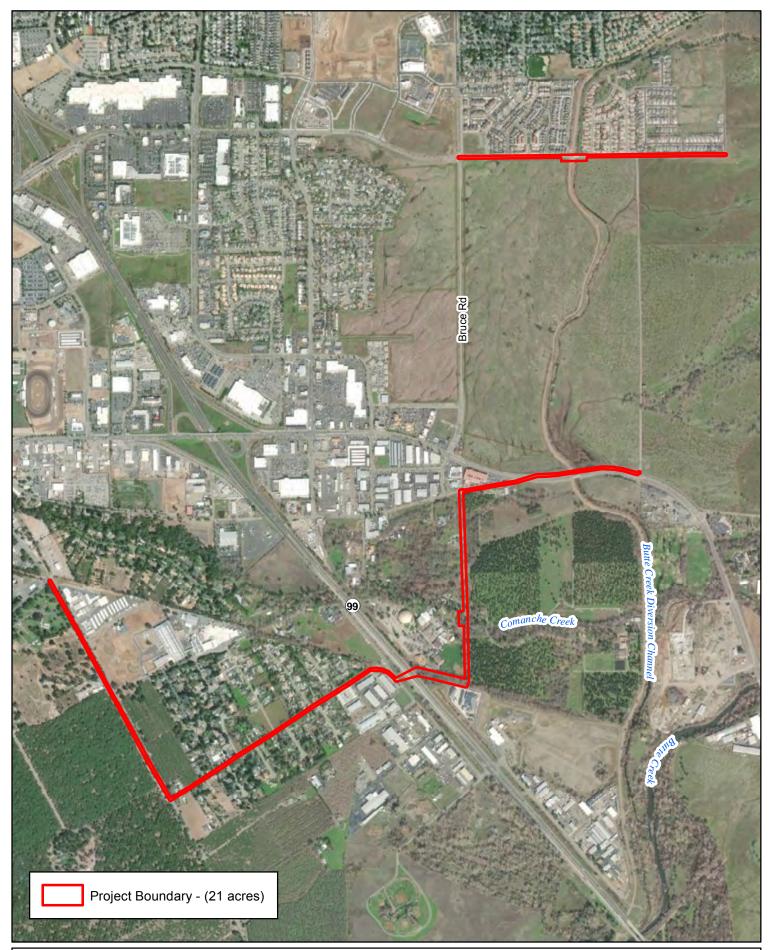
To access the site from CA-99 N, take exit 383 toward Park Ave/Paradise and turn right onto Skyway Road. Continue on Skyway Road for 0.6 miles to get to the Bruce Road/Dominic Drive intersection. To get to Segment A turn left onto Bruce Road and then turn right onto E 20th Street. To get to Segments B and C turn right onto Dominic Drive and then left onto Morrow Lane.

There is a verified delineation of WOTUS that includes the portion of this Project that occurs along Skyway (SPK-2016-00537). Therefore, a survey of WOTUS was conducted on June 12, 2020, by senior botanist Elena Gregg within the remaining previously unverified portions of the Project. Data regarding the location and extent of wetlands and other waters of the United States were collected using a Trimble Geo Explorer 6000 Series GPS Receiver. The survey involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the *United States Army Corps of Engineers Wetlands Delineation Manual* (1987) (1987 Delineation Manual); the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008) (Arid West Manual); the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (2008); the State of California 2016 Wetland Plant List and 2019 National Wetland Plant List updated information; and the Clean Water Act Final Rule, Federal Register Volume 85, No-77 (Final Rule), April 21, 2020. Gallaway Enterprises have prepared this report in compliance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (January 2016).

Environmental Setting and Site Conditions

The Project is located within the Central Valley in Chico, California. The four infrastructure segments follow existing roads and/or existing utility corridors. The land in the Project survey area includes asphalt paved roadways, gravel shoulder, small strips of disturbed land adjacent to the road shoulder that is regularly managed for vegetation, and sections of historic dirt/gravel railroad grades that are now converting to oak woodland habitat. Also, a few drainages flow through the Project, including Comanche Creek, which is lined by riparian vegetation. The land outside the Project consists of annual grassland with vernal pool complexes or urban land. The habitat conditions within the Project are highly degraded due to existing development and the previous installation of utilities (e.g. underground water and gas lines).





Within segment A the proposed off-site infrastructure will stay within the paved portion of 20th Street and will cross Butte Creek Diversion Channel. Within segment B the infrastructure construction will be trenched in the road shoulder of Skyway, Morrow Lane, and Cramer Lane. The alignment crosses the Butte Creek Diversion Channel at Skyway before crossing over to Morrow Lane. Segment B is mostly within paved sections of Skyway Road, Morrow Lane and Cramer Lane until it crosses Comanche Creek, where is travels overland through oak woodland, dirt roadway and highly disturbed grassland. Segment C is mostly within the alignment of a historic railroad grade that has since converted back to oak woodland and highly disturbed annual grassland. Segment D will be contained in the paved portion of Entler Road and Midway.

The average annual precipitation is 25.66 inches and the average annual temperature is 61.0° F (WRCC 2020) in the region where the Project is located. The elevation of the Project ranges from 140 to 240 feet above sea level. The Project survey area contained slopes ranging from 0 to 50 percent. Soils within the site were gravelly, sandy and clay loams with a restrictive layer ranging from 4 to 80 or more inches deep.

Survey Methodology

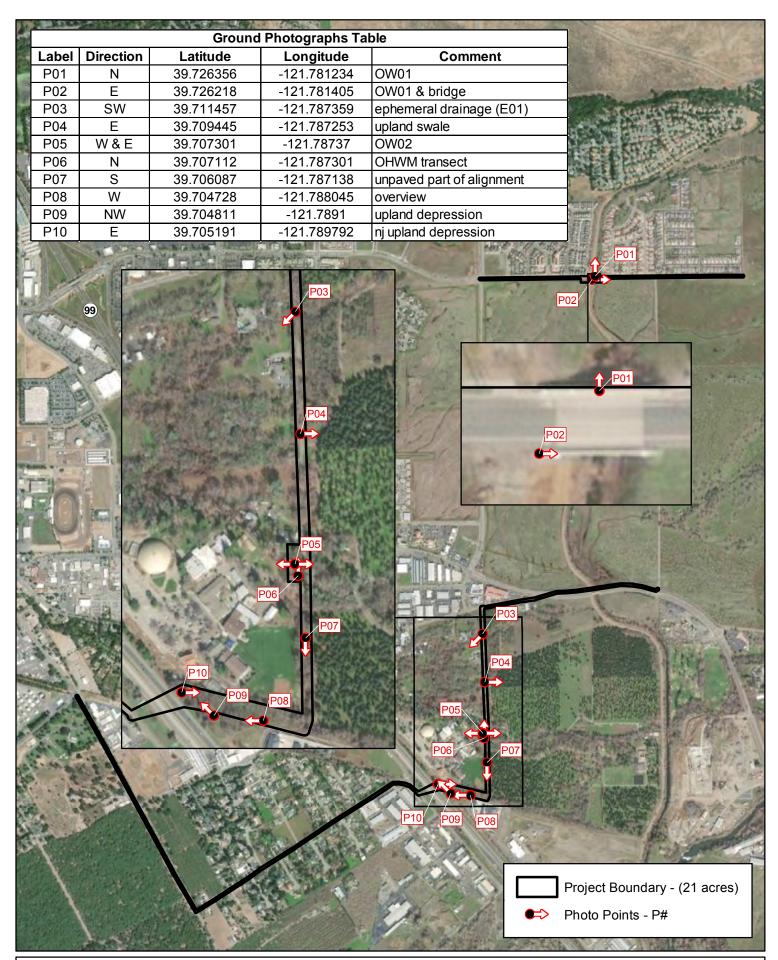
The entire Project survey area (with the exception of the portion of the Project already mapped and verified under SPK-2016-00537) was traversed by Gallaway Enterprises staff on June 12, 2020 to identify any potentially jurisdictional features. The survey, mapping efforts, and report production were performed according to the current valid legal definitions of WOTUS in effect at the time of the field surveys and then updated to current definitions in effect starting June 22, 2020. The boundaries of nontidal, non-wetland waters, when present, were delineated at the ordinary high water mark (OHWM) as defined in 33 Code of Federal Regulations (CFR) 328.3. The OHWM represents the limit of United States Army Corps of Engineers (Corps) jurisdiction over non-tidal waters (e.g., streams and ponds) in the absence of adjacent wetlands (33 CFR 328.04) (Curtis, et. al. 2011). Historic aerial photographs available on Google Earth were analyzed prior to conducting the field visit. Areas identified as having potential wetland or unusual signatures on historical aerial photos were assessed in the field to determine the current conditions.

Field data were entered onto data sheets using the most current format (**Appendix A**). Perimeters of WOTUS based on the 1987 Delineation Manual and the Arid West Manual were recorded and defined according to their topographic and hydrologic orientation. Only areas exhibiting the necessary wetland parameters according to the 1987 Delineation Manual and Arid West Manual on the date surveyed were mapped as wetlands. Photographs were taken to show wetland features and/or areas identified as having unusual aerial signatures. The locations of the photo points are depicted in **Figure 3** and the associated photographs are provided at the end of the report.

Many of the terms used throughout this report have specific meanings relating to the federal wetland delineation process. Term definitions are based on the Corps 1987 Delineation Manual; the Arid West Manual; Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008) and the Final Rule. The terms defined below have specific meaning relating to the delineation of WOTUS as prescribed by §404 of the Clean Water Act (CWA) and described in 33 CFR Part 328 and 40 CFR Parts 110, 112, and 116, and 122.

Determination of Hydrophytic Vegetation

The presence of hydrophytic vegetation was determined using the methods outlined in the 1987 Delineation Manual and the Arid West Manual. Areas were considered to have positive indicators of hydrophytic vegetation if they pass the dominance test, meaning more than 50 percent of the dominant



species are obligate wetland, facultative wetland and facultative plants. Plant species were identified to the lowest taxonomy possible. Plant indicator status was determined by reviewing the State of California 2016 Wetland Plant List for the Arid West Region and the National Wetland Plant List 2019 updated information. In situations where dominance can be misleading due to seasonality, the prevalence index will be used to determine hydrophytic status of the community surrounding sample sites.

Plant indicator status categories:

Obligate wetland plants (OBL) – plants that occur almost always (estimated probability 99%) in wetlands under normal conditions, but which may also occur rarely (estimated probability 1%) in non-wetlands.

Facultative wetland plants (FACW) - plants that usually occur (estimated probability 67% to 99%) in wetlands under normal conditions, but also occur (estimated probability 1% to 33%) in non-wetlands.

Facultative plants (FAC) – Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands.

Facultative upland plants (FACU) – Plants that occur sometimes (estimated probability1% to 33%) in wetlands, but occur more often (estimated probability 67% to 99%) in non-wetlands.

Obligate upland plants (UPL) – Plants that occur rarely (estimated probability 1%) in wetlands, but occur almost always (estimated probability 99%) in non-wetlands under natural conditions.

Determination of Hydric Soils

Soil survey information was reviewed for the current site condition. Information regarding local soil and series descriptions is provided in **Appendix B.** The current Natural Resources Conservation Service (NRCS) *Field Indicators of Hydric Soils in the United States, Version 8.2* (NRCS 2018) was used in conjunction with the Arid West Manual to determine the presence of hydric soil indicators.

Determination of Wetland Hydrology

Wetland hydrology was determined to be present if a site supported one or more of the following characteristics:

- Landscape position and surface topography (e.g. position of the site relative to an up-slope water source, location within a distinct wetland drainage pattern, and concave surface topography),
- Inundation or saturation for a long duration either inferred based on field indicators or observed during repeated site visits, and
- Residual evidence of ponding or flooding resulting in field indicators such as scour marks, sediment deposits, algal matting, surface soil cracks and drift lines.

The presence of water or saturated soil for approximately 12% or 14 consecutive days during the growing season typically creates anaerobic conditions in the soil, and these conditions affect the types of plants that can grow and the types of soils that develop (Wetland Training Institute 1995).

Historic aerial photographs were analyzed to look for primary and secondary wetland hydrology indicators of inundation or saturation. The historic aerial imagery reviewed was the public, readily available imagery provided on Google Earth (1998-2018). If aerial signatures demonstrated the presence of surface water on 5 or more of the historic aerial photographs viewed, inundation and a primary indicator of wetland hydrology was determined to be present. Saturation, a secondary indicator of wetland hydrology, was determined to be present if saturation, "darker patches within the field," were observed on 5 or more of the 9 historic aerial photographs viewed.

Determination of Ordinary High Water Mark

Gallaway utilized methods consistent with the Arid West Manual and Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, (Lichvar and McColley 2008) to determine the OHWM. The lateral extents of non-tidal water bodies (e.g. intermittent and ephemeral streams) were based on the OHWM, which is "the line on the shore established by the fluctuations of water" (Corps 2005). The OHWM was determined based on multiple observed physical characteristics of the area, which can include scour, multiple observed flow events (from current and historical aerial photos), shelving, and changes in the character of soil, presence of mature vegetation, deposition, and topography. Due to the wide extent of some floodplains, adjacent riparian scrub areas characterized by hydric soils, hydrophytic vegetation, and hydrology may be included within the OHWM of a non-tidal water body (Curtis, et. al. 2011). Inclusion of minor special aquatic areas is an acceptable practice as outlined in the Arid West Manual.

OHWM Transects:

Representative OHWM widths measured in the field are shown as transect lines and measured in feet as required by the Corps *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (2016)*. These transect lines are used to ensure that the other waters of the United States identified within the Project site are mapped and calculated at the appropriate average width for each channel segment based on the Corps definition of OHWM as defined in the Arid West OHWM Field Guide and the *Ordinary High Water Mark Identification RGL 05-05 (2005)* (RGL 05-05). When the average width of a feature changes, this change is shown on the delineation map as a feature transition and a new average channel width is determined. At each transect line Gallaway uses multiple observed physical indicators in determining the OHWM. The lateral extents of the transect lines identify the location of the OHWM where benches, drift, exposed root hairs, changes in substrate/particle size, and, if appropriate, changes in vegetation were observed. If any other physical indicators as described in the Arid West OHWM Field Guide or RGL 05-05 are observed, these indicators are also utilized to help determine the location of the OHWM. Field data gathered along the OHWM transect of Comanche Creek on the site was entered onto the Arid West OHWM Datasheet (Curtis and Lichvar 2010), which is provided as **Appendix A**.

Jurisdictional Boundary Determination and Acreage Calculation

The wetland-upland boundary was determined based on the presence or inference of positive indicators of all mandatory criteria. The site was traversed on foot to identify wetland features and boundaries. The spatial data obtained during the preparation of this wetland delineation was collected using a Trimble Geo Explorer 6000 Series GPS Receiver. No readings were taken with fewer than 5 satellites. Point data locations were recorded for at least 25 seconds at a rate of 1 position per second. Area and line data were recorded at a rate of 1 position per second while walking at a slow pace. All GPS data were differentially corrected for maximum accuracy. In some cases, when visual errors and degrees of precision are identified due to environmental factors negatively influencing the precision of the GPS instrument (i.e. dense tree cover, steep topography, and other factors affecting satellite connection) mapping procedures utilized available topographic and aerial imagery datasets in order to improve accuracy in feature alignment and location.

Non-Jurisdictional Boundary Determination and Acreage Calculation

Areas were determined to be non-wetlands if they did not meet the necessary wetland test parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4) and were determined to be potentially non-jurisdictional if they were consistent with the description of non-jurisdictional features

as presented in the *Corps Jurisdictional Determination Form Instructional Guidebook* (2007) and Final Rule. There were a few areas that exhibited depressed topography along Cramer Lane and south of Cramer Lane within the Project, however, based on the visual assessment conducted at these locations (see pictures taken at these locations at the end of this report and **Figure 3**), the areas lacked the necessary wetland parameters and were not mapped as features.

There was also one feature that was consistent with the description of non-jurisdictional features per the Final Rule within the Project. This feature is an ephemeral drainage (E01) which only flows immediately after rain events (**Exhibit A**). No flowing or ponded water was observed in the ephemeral drainage during the June field visit. The one ephemeral drainage meets the definition of non-jurisdictional waters per Section 328.3(b)(3) of the Final Rule.

Results

Table 1 Summarizes the area calculations for the pre-jurisdictional features within the Project. A complete Draft Delineation of WOTUS map, utilizing a 1" to 400' scale, is included as **Exhibit A**.

Table 1. Draft Delineation of Waters of the United States Acreage Table for the Valley's Edge Off-site Infrastructure Project.

Draft Delineation of Waters of the U.S.						
Label	Cowardin	Description	Width (ft)	Length (ft)	Area (sq ft)	Acres
OW01	R4	Intermittent	28.7	176.4	5067.9	0.12
OW02	R5	Perennial	69.0	97.8	6749.4	0.15
Total Waters of the U.S. =			274.2	11817.3	0.27	

Non-Jurisdictional by Rule*						
Label	Cowardin	Description	Width (ft)	Length (ft)	Area (sq ft)	Acres
E01	R6	Ephemeral	4.0	21.6	87.1	0.002
	Non-Jurisdictional by Rule Totals =			21.6	87.1	0.002

^{*}These features may meet the definition of Waters of the State and be under the jurisdiction of the California Regional Water Quality Control Board.

Waters of the United States: Tributaries

There are two features identified as Tributaries (Tributary) to a TNW per the Final Rule within the Project. Tributaries are intermittent or perennial water bodies in a typical year, including lakes, stream channels, and other similar surface water features that exhibit an ordinary high-water mark, but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4). The boundaries of all Tributaries identified within the Project were delineated based on the observed OHWM, including physical characteristics such as natural lines impressed on the bank, shelving, changes in the character of the soil, the destruction of terrestrial vegetation, debris lines and other appropriate indicators.

One of the Tributaries identified (OW02) is Comanche Creek, which is a perennial drainage feature, and the other Tributary identified (OW01) is the Butte Creek Diversion Channel, which is an intermittent drainage (Exhibit A). Perennial drainages typically flow year-round and intermittent drainages typically flow for more than 3 months of the year and have a documented hydrologic connection to a TNW.

Flowing water observed within Comanche Creek and largely stagnate water was observed in the Butte Creek Diversion Channel during the June field visit. The Tributaries identified within the Project were observed to contain appropriate morphology of bed, bank and scour.

Waters of the United States: Adjacent Wetlands

No adjacent wetlands occur within the Project survey area.

During the aerial photography review of the Project area conducted prior to the field visit, a dense tree canopy was observed along the banks of Comanche Creek, therefore, this area was assessed in the field for evidence of riparian wetland. Upon ground truthing this area it was determined that no wetland parameters were present in the area outside the OHWM of Comanche Creek. Photographs were taken in this area and other areas with upland depressed topography which were found to lack wetland parameters when ground-truthed (Figure 3). Photo points were taken at wetlands and other locations throughout the Project area to depict the current site conditions (Figure 3).

Soils

The geographic region in which the Project is found is often characterized as having a naturally occurring hardpan, or duripan that undulates throughout the region. Duripans restrict root growth, limit water infiltration, and result in a perching of the water table in certain locations. Within the Project, the duripan is typically found at a depth ranging from 4 to 80 or more inches.

Gallaway queried the National Cooperative Soil Survey database to further evaluate the current soil conditions. A copy of the soil survey map and a description of mapped soil units for the Project are included as **Appendix B**. A total of eight soil map units occur within the Project. The map units are listed below in **Table 2**. Based on Gallaway's review, four of the soil map units identified within the Project contains very minor amounts of hydric components (1-18%) and only one of the soil map units contains major amounts of hydric components (98%). The hydric components are typically found in floodplains, fan and stream terraces and ridges. A copy of the soil survey map and a description of mapped soil units for the Project site are included as **Appendix B**.

Table 2. Soil Map Units, NRCS hydric soil designation, and approximate totals for the Valley's Edge Offsite Infrastructure Project.

Map Unit Symbol	Map Unit Name	% Hydric Component in Map Unit	Landform of Hydric Component	% Map Unit in Survey Area
118	Xerorthents, tailings and 0 to 50 percent slopes		Floodplains & terraces	0.6%
300	Redsluff gravelly loam, 0 to 2 percent slopes	3%	Fan terraces	10.5%
301	Wafap-Hamslough, 0 to 2 percent slopes	18%	Stream terraces	2.8%
302	Redtough-Redswale, 0 to 2 percent slopes	8%	Fan terraces	20.8%
425	Vina fine sandy loam, sandy substratum, 0 to 2 percent slopes	N/A	N/A	23.7%

Map Unit Symbol	Map Unit Name	% Hydric Component in Map Unit	Landform of Hydric Component	% Map Unit in Survey Area
445	Chico loam, 0 to 1 percent slopes	N/A	N/A	23.0%
447	Charger fine sandy loam, 0 to 1 percent slopes	N/A	N/A	9.6%
615	Doemill-Jokerst, 3 to 8 percent slopes	1%	Ridges	9.0%

Vegetation

During the site visit, the identifiable understory vegetation within the upland portions of the Project included medusahead (*Elymus caput-medusae*) (UPL), ripgut brome (*Bromus diandrus*) (UPL), Spanish lotus (*Acmispon americanus*) (FACU), perennial ryegrass (*Festuca perennis*) (FAC), soft chess (*Bromus hordeaceus*) (FACU), winter vetch (*Vicia villosa*) (NL) and prickly lettuce (*Lactuca serriola*) (FACU). Cramer Lane was lined with large Chines pistache trees (*Pistacia chinensis*) (NL). The dominant vegetation associated with Comanche Creek included a tree canopy of valley oak (*Quercus lobata*) (FACU) one large California sycamore (*Platanus racemosa*) (FAC), and a variety of ornamental landscape trees including Chinese pistache and coast redwood (*Sequoia sempervirens*) (NL). Vegetation within the banks of Comanche Creek was dominated by Santa Barbara sedge (*Carex barbarae*) (FAC), wild grape (*Vitis californica*) (FACU) and Himalayan blackberry (*Rubus armeniacus*) (FAC). The vegetation within the banks of the Butte Creek Diversion Channel included cattails (*Typha* sp.) (OBL), rabbit-foot grass (*Polypogon monspeliensis*) (FACW), tall nutsedge (*Cyperus eragrostis*) (FACW), arroyo willow (*Salix lasiolepis*) (FACW) and black willow (*Salix gooddingii*) (FACW).

Hydrology

Hydrology within the Project is influenced primarily by precipitation and localized runoff. The one perennial Tributary present within the Project is Comanche Creek (OW02). Comanche Creek is a tributary of Angel Slough, which is a tributary of Butte Creek, which in turn is a tributary of the Sacramento River, a TNW. The one intermittent Tributary present in the Project is the Butte Creek Diversion Channel (OW01). The diversion channel flows through the Project site and continues south where it converges with Butte Creek to the southeast of the Project.

There is also a non-jurisdictional water present within the Project as defined in Section 328.3(b) of the Final Rule. This non-jurisdictional water is an ephemeral drainage (E01).

Site Photos Taken on June 12, 2020



P01 – OW01 looking north



P02 – OW01 looking east



P03 – Ephemeral drainage (E01) looking southwest



P04 – Upland swale-like area looking east



P05 – OW02 looking southeast



P05 – OW02 looking northwest



P06 – OHWM transect looking northeast



P07 – Overview looking south



P08 – Overview looking slightly northwest



P09 – Upland depression looking northwest



P10 – Upland depression looking slightly southeast

Glossary

Abutting: When referring to wetlands that are adjacent to a tributary, abutting defines those wetlands that are not separated from the tributary by an upland feature, such as a berm or dike.

Adjacent: Adjacent wetlands are defined in Corps and EPA regulations as wetlands that abut, or touch at least at one point or side, a tributary or other jurisdictional feature. Wetlands separated from other waters of the U.S. by man-made/artificial dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands' so long as the artificial structure allows for a direct hydrologic surface connection. The entirety of wetlands are considered adjacent if the wetland has a road or similar artificial structure dividing it as long as the road/structure allows for a direct hydrologic surface connection through or over that structure in a typical year.

The regulations define "adjacent wetlands" as wetlands that meet at least one of following criteria:

- (1) There is an unbroken surface hydrologic connection between the wetland and jurisdictional waters;
- (2) The wetland is inundated by flooding from a jurisdictional sea, tributary or lake/pond;
- (3) The wetlands are physically separated from jurisdictional sea, tributary or lake/pond only by a natural berm, bank, dune, or similar natural feature; or
- (4) The wetlands are physically separated from jurisdictional sea, tributary or lake/pond only by an artificial dike, barrier or similar artificial structure and the artificial structure allows for a direct connection between the wetland and jurisdictional water in a typical year.

The agencies will also continue to assert jurisdiction over wetlands "adjacent" to traditional navigable waters as defined in the agencies' regulations. The Rapanos decision does not affect the scope of jurisdiction over wetlands that are adjacent to traditional navigable waters. The agencies will assert jurisdiction over those adjacent wetlands that have a continuous surface connection with a relatively permanent, non-navigable tributary, without the legal obligation to make a significant nexus finding.

Atypical situation (significantly disturbed): In an atypical (significantly disturbed) situation, recent human activities or natural events have created conditions where positive indicators for hydrophytic vegetation, hydric soil, or wetland hydrology are not present or observable.

Channel. "An open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water" (Langbein and Iseri 1960:5).

Channel bank. The sloping land bordering a channel. The bank has steeper slope than the bottom of the channel and is usually steeper than the land surrounding the channel.

Cobbles. Rock fragments 7.6 cm (3 inches) to 25 .4 cm (10 inches) in diameter.

Debris flow. A moving mass of rock fragments, soil, and mud where more than 50% of the particles are larger than sand-sized.

Ditch. A constructed or excavated channel used to convey water.

Drift. Organic debris oriented to flow direction(s) (larger than small twigs).

Ephemeral stream. An ephemeral stream has flowing water only in direct response to precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Facultative wetland (FACW). Wetland indicator category; species usually occurs in wetlands (estimated probability 67–99%) but occasionally found in non-wetlands.

Flat. A level landform composed of unconsolidated sediments usually mud or sand. Flats may be irregularly shaped or elongate and continuous with the shore, whereas bars are generally elongate, parallel to the shore, and separated from the shore by water.

Gravel. A mixture composed primarily of rock fragments 2mm (0 .08 inch) to 7.6 cm (3 inches) in diameter. Usually contains much sand.

Growing season The frost-free period of the year (see U.S. Department of Interior, National Atlas 1970:110-111 for generalized regional delineation).

Herbaceous. With the characteristics of an herb; a plant with no persistent woody stem above ground.

Hydric soil. Soil is hydric that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-depleted) conditions in its upper part (i.e., within the shallow rooting zone of herbaceous plants).

Hydrophyte, **hydrophytic**. Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Intermittent stream. An intermittent stream has flowing water during certain times of the year and more than in direct response from precipitation, when elevated groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water.

Jurisdictional Waters. Features that meet the definition of waters of the Unites States provided below and that fall under Corps regulations pursuant to Section 404 of the CWA are considered jurisdictional features. These include territorial seas; tributaries; lakes and ponds and impoundments of jurisdictional waters; and adjacent wetlands.

Litter. Organic debris oriented to flow direction(s) (small twigs and leaves).

Man-induced wetlands. A man-induced wetland is an area that has developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities.

Normal circumstances. This term refers to the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed.

Obligate hydrophytes. Species that are found only in wetlands e.g., cattail (*Typha latifolia*) as opposed to ubiquitous species that grow either in wetland or on upland-e.g., red maple (*Acer rubrum*).

Obligate wetland (OBL). Wetland indicator category; species occurs almost always (estimated probability 99%) under natural conditions in wetlands.

Palustrine the Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 m (6.6 feet) at low water; and (4) salinity due to ocean-derived salts is less than 0.5 parts per thousand.

Perennial stream. A perennial stream has flowing water year-round during atypical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Ponded. Ponding is a condition in which free water covers the soil surface (e.g., in a closed depression) and is removed only by percolation, evaporation, or transpiration.

Problem area. Problem areas are those where one or more wetland parameters may be lacking because of normal seasonal or annual variations in environmental conditions that result from causes other than human activities or catastrophic natural events.

Scour. Soil and debris movement.

Sheetflow. Overland flow occurring in a continuous sheet; a relatively high-frequency, low-magnitude event.

Shrub. A woody plant which at maturity is usually less than 6 m(20 feet) tall and generally exhibits several erect, spreading, or prostrate stems and has a bushy appearance; e.g., speckled alder (*Alnus rugosa*) or buttonbush (*Cephalanthus occidentalis*).

Succession. Changes in the composition or structure of an ecological community.

Traditional Navigable Waters (TNWs). "[a]II waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide." These waters are referred to in this guidance as traditional navigable waters. The traditional navigable waters include all of the "navigable waters of the United States," as defined in 33 C.F.R. Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact (for example, the Great Salt Lake, UT, and Lake Minnetonka, MN). Thus, the traditional navigable waters include, but are not limited to, the "navigable waters of the United States" within the meaning of Section 10 of the Rivers and Harbors Act of 1899 (also known as "Section 10 waters").

Tree. A woody plant which at maturity is usually 6 m (20 feet) or more in height and generally has a single trunk, unbranched for 1 m or more above the ground, and a more or less definite crown; e.g., red maple (*Acer rubrum*), northern white cedar (*Thuja occidentalis*).

Tributary. Tributaries are defined by regulation as a "river, stream or similar naturally occurring surface water channel that contributes surface water flow to a [jurisdictional water] in a typical year either directly or through one or more [jurisdictional water]. A tributary must be perennial or intermittent in a typical year." Tributaries include natural perennial or intermittent drainages that have been realigned or relocated.

Typical Year. Defined by the EPA and Corps as meaning when precipitation and other climactic variables are within the normal periodic range for the geographic area based on a rolling thirty-year period.

Water table. The upper surface of a zone of saturation. No water table exists where that surface is formed by an impermeable body.

Waters of the United States (WOTUS). This is the encompassing term for areas under federal jurisdiction pursuant to Section 404 of the CWA. Waters of the United States are divided into "adjacent wetlands" and "tributaries".

Watershed (drainage basin). An area of land that drains to a single outlet and is separated from other watersheds by a divide.

Wetland. Wetlands are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 [b], 40 CFR

230.3). To be considered under potential federal jurisdiction, a wetland must support positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

Woody plant. A seed plant (gymnosperm or angiosperm) that develops persistent, hard, fibrous tissues, basically xylem; e.g., trees and shrubs.

Xeric. Relating or adapted to an extremely dry habitat

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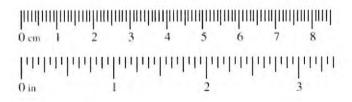
Appendix A: Ordinary High Water Mark Data Sheets

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Valley's Edge Offsite Improvements Project Number: 20-069	Date: 6-12-20 Time: 12:10pm
Project Number: 20-069	Town: Chico State: CA
Stream: Comanche Creek	Photo begin file#: Photo end file#:
Investigator(s): E. Gregg	
Y ⋈ / N ☐ Do normal circumstances exist on the site?	Location Details: Comandre Creek/Cramer Lane bridge in Chico, CA.
Y ☐ / N ☒ Is the site significantly disturbed?	Projection: Google Earth Datum: WG5 84 Coordinates: 39.707188°, -121, 787187°
Potential anthropogenic influences on the channel syst	em: a usfs research park w/ many public visitors
Surrounding area is highly landscaped/lots of	
Brief site description: Ereck moderately channe of dense understoy. Creek is perennial	lized. Deuse overstory and sections
Checklist of resources (if available):	
Aerial photography Stream gag	e data
Dates: Gage numb	
☑ Topographic maps Period of re	
	of recent effective discharges
	s of flood frequency analysis
	ecent shift-adjusted rating
[1] 프로그램, 10년, 10년, 10년, 10년, 10년, 10년, 10년, 10년	eights for 2-, 5-, 10-, and 25-year events and the
N 	ecent event exceeding a 5-year event
	ecent event exceeding a 5-year event
Global positioning system (GPS) Other studies	
Unter studies	
Hydrogeomorphic F	loodplain Units
Active Floodplain	, Low Terrace ,
	lat the second s
	and the same of th
~ ~ ~ 7	
Low-Flow Channels	OHWM Paleo Channel
Procedure for identifying and characterizing the flood	plain units to assist in identifying the OHWM:
] 그 (M. M.) - (1) (M. M.) (M.) (M.) (M.) (M.) (M.) (M.) (M.) (M.) (M.)	
1. Walk the channel and floodplain within the study area to	o get an impression of the geomorphology and
vegetation present at the site.	
2. Select a representative cross section across the channel. I	
3. Determine a point on the cross section that is characteristic	stic of one of the hydrogeomorphic floodplain units.
a) Record the floodplain unit and GPS position.	
b) Describe the sediment texture (using the Wentworth	class size) and the vegetation characteristics of the
floodplain unit.	
c) Identify any indicators present at the location.	
4. Repeat for other points in different hydrogeomorphic flo	podplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the	
Mapping on aerial photograph	GPS GPS
Digitized on computer	Other:

Wentworth Size Classes

Inche	es (in)			Mil	limeters (m	m)	Wentworth size class
	10.08	_	-	_	256		Boulder
	2.56	_	-	-	64	-	Cobble 20
	0.157	-	_	-	4		Pebble Granule
	0.079	-		_	2.00		
	0.039	_	_	-	1.00		Very coarse sand
	0.020	-	_	_	0.50		0.001127(20)100
1/2	0.0098	_	_	-	0.25		Medium sand
1/4	0.005	-	=	+	0 125		Fine sand Very fine sand
1/8 —	0.0025	-		-	0.0625	_	+
1/16	0.0012	-	-	-	0.031		Coarse silt Medium silt
1/32	0.00061	-	-	-	0.0156		+ - - - - - - - -
1/64	0.00031	_	-	-	0.0078		Very fine silt
1/128 —	0.00015	\dashv	_	_	0.0039		1
							Clay



mar mar
Co
> X
Okwing
res+ (downstream)
☑ Break in bank slope
Other: drift debris
Other: drift debris
☐ Active Floodplain ☐ Low Terrace
- overhanging
overhanging
overhangty arub: 20% Herb:%
arub: 25 % Herb:%
Herb:% Mid (herbaceous, shrubs, saplings)
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees)
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees)
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees)
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees) Soil development Surface relief Other: △ Vegetation Cow %
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees) Soil development Surface relief Other: Δ vegetation Cow % Other:
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees) Soil development Surface relief Other: △ Vegetation Cow %
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees) Soil development Surface relief Other: Δ > vegetation Cow % Other:
Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees) Soil development Surface relief Other: Δ > vegetation Cow % Other:

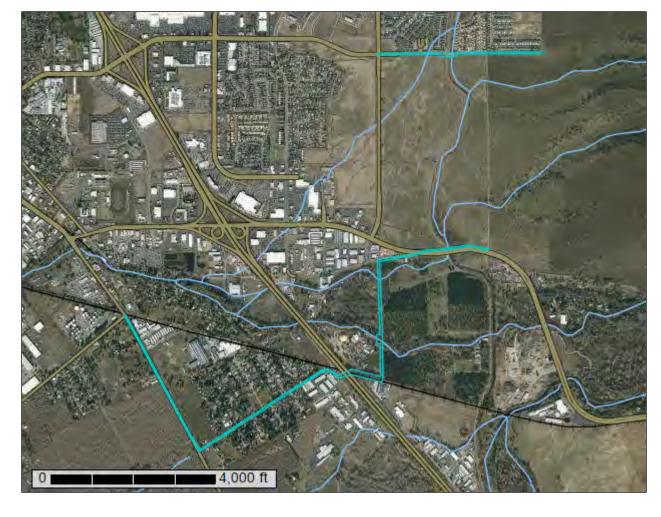
Cloodplain unit: Low-Flow Channel	Active Floodplain Low Terrace
GPS point:	
Characteristics of the floodplain unit: Average sediment texture:	
Total veg cover: ≥20 % Tree: → % Community successional stage:	Shrub: <u>50</u> % Herb: <u>100</u> %
NA	Mid (herbaceous, shrubs, saplings)
Early (herbaceous & seedlings)	Late (herbaceous, shrubs, mature trees)
ndicators:	
Mudcracks	Soil development
☐ Ripples ☐ Drift and/or debris	Surface relief
Presence of bed and bank	Other: A A was date of the second
Benches	✓ Other: exfosed roots ✓ Other: Δ in regulation composition
Comments:	The state of the s
Floodplain unit:	
Characteristics of the floodplain unit: Average sediment texture: 5/4 Total veg cover: 160 % Tree: 80 % Community successional stage: NA Early (herbaceous & seedlings)	Shrub: <u>20</u> % Herb: <u>∠0</u> % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)
Characteristics of the floodplain unit: Average sediment texture:	Shrub: 20 % Herb: ∠0 % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees) ☐ Soil development
Characteristics of the floodplain unit: Average sediment texture:	Shrub: 20 % Herb: ∠0 % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees) ☐ Soil development ☐ Surface relief
Characteristics of the floodplain unit: Average sediment texture:	Shrub: 20 % Herb: ∠0 % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees) ☐ Soil development ☐ Surface relief
Characteristics of the floodplain unit: Average sediment texture:	Shrub: 20 % Herb: ∠0 % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees) ☐ Soil development
Characteristics of the floodplain unit: Average sediment texture:	Shrub: 20 % Herb: ∠0 % ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees) ☐ Soil development ☐ Surface relief

Appendix B: NRCS Soils Map and Soil Series Description



NRCS

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource
Report for
Butte Area, California,
Parts of Butte and
Plumas Counties



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

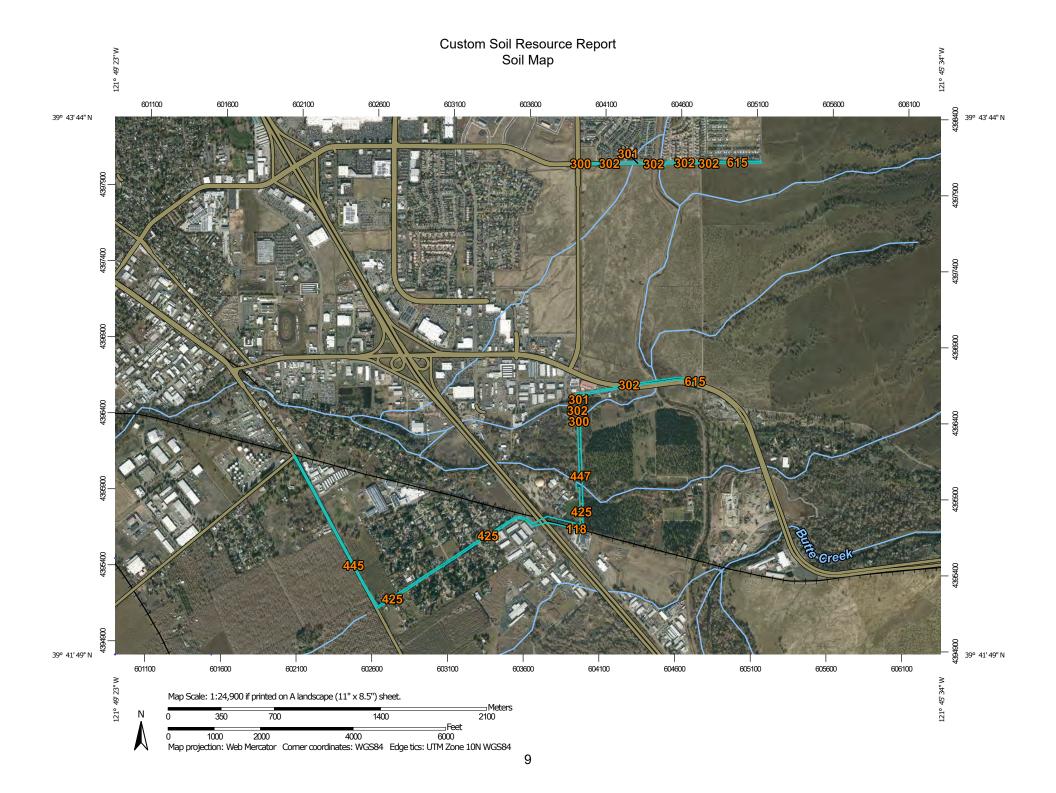
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

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Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip Sodic Spot

Spoil Area Stony Spot

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Very Stony Spot

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Wet Spot Other

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Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

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Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

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

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Butte Area, California, Parts of Butte and

Plumas Counties

Survey Area Data: Version 16, Sep 16, 2019

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

Date(s) aerial images were photographed: Dec 6, 2018—Dec 12, 2018

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
118	Xerorthents, Tailings and 0 to 50 percent slopes	0.1	0.6%
300	Redsluff gravelly loam, 0 to 2 percent slopes	2.2	10.5%
301	Wafap-Hamslough , 0 to 2 percent slopes	0.6	2.8%
302	Redtough-Redswale , 0 to 2 percent slopes	4.4	20.8%
425	Vina fine sandy loam, sandy substratum, 0 to 2 percent slopes, MLRA 17	5.0	23.7%
445	Chico loam, 0 to 1 percent slopes	4.8	23.0%
447	Charger fine sandy loam, 0 to 1 percent slopes	2.0	9.6%
615	Doemill-Jokerst , 3 to 8 percent slopes	1.9	9.0%
Totals for Area of Interest	·	21.0	100.0%

Map Unit Descriptions

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

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Butte Area, California, Parts of Butte and Plumas Counties

118—Xerorthents, Tailings and 0 to 50 percent slopes

Map Unit Setting

National map unit symbol: hgxl Elevation: 90 to 1,340 feet

Mean annual precipitation: 21 to 50 inches Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 240 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Xerorthents and similar soils: 80 percent

Minor components: 20 percent

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

Description of Xerorthents

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Dredged spoil piles from gravelly alluvium derived from igneous,

metamorphic and sedimentary rock

Typical profile

A - 0 to 3 inches: very gravelly sandy loam

AC - 3 to 8 inches: extremely gravelly sandy loam

C1 - 8 to 21 inches: loamy sand C2 - 21 to 26 inches: loamy sand C3 - 26 to 35 inches: loamy sand

C4 - 35 to 48 inches: loamy coarse sand

C5 - 48 to 59 inches: loamy sand C6 - 59 to 81 inches: loamy sand

Properties and qualities

Slope: 0 to 50 percent

Percent of area covered with surface fragments: 0.0 percent

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

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 4.25

in/hr)

Depth to water table: About 60 to 80 inches

Frequency of flooding: Occasional Frequency of ponding: None

Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

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

Hydrologic Soil Group: A

Hydric soil rating: Yes

Minor Components

Unnamed, riparian areas

Percent of map unit: 5 percent Landform: Flood plains Hydric soil rating: Yes

Pits, water-filled

Percent of map unit: 5 percent Landform: Flood plains Hydric soil rating: Yes

Xeropsamments, tailings

Percent of map unit: 3 percent Landform: Flood plains Hydric soil rating: Yes

Xerofluvents, tailings

Percent of map unit: 3 percent Landform: Flood plains Hydric soil rating: Yes

Haploxeralfs, terrace

Percent of map unit: 2 percent Landform: Stream terraces Hydric soil rating: No

Unnamed, duripan

Percent of map unit: 2 percent

Landform: Terraces
Hydric soil rating: Yes

300—Redsluff gravelly loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hh0t Elevation: 180 to 400 feet

Mean annual precipitation: 24 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Redsluff, gravelly loam, and similar soils: 80 percent

Minor components: 20 percent

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

Description of Redsluff, Gravelly Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Fine-loamy alluvium derived from igneous, metamorphic and

sedimentary rock over gravelly alluvium derived from volcanic rock

Typical profile

Ap - 0 to 2 inches: gravelly loam
Bt1 - 2 to 5 inches: gravelly loam
Bt2 - 5 to 12 inches: gravelly clay loam
Bt3 - 12 to 21 inches: gravelly loam
Bt4 - 21 to 29 inches: gravelly loam
Bt5 - 29 to 37 inches: gravelly loam

Bt6 - 37 to 42 inches: extremely gravelly sandy loam Cq - 42 to 80 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.28

to 0.99 in/hr)

Depth to water table: About 35 to 80 inches

Frequency of flooding: Rare Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm)

Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

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

Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Unnamed, weak cementation below 40 inches

Percent of map unit: 4 percent Landform: Fan terraces Hydric soil rating: No

Fernandez, sandy loam

Percent of map unit: 4 percent Landform: Fan terraces Hydric soil rating: No

Typic haploxeralfs, very deep

Percent of map unit: 3 percent Landform: Fan terraces Hydric soil rating: No

Anita, gravelly duripan

Percent of map unit: 3 percent Landform: Fan terraces Hydric soil rating: Yes

Redtough

Percent of map unit: 2 percent Landform: Fan terraces Hydric soil rating: No

Pachic argixerolls

Percent of map unit: 2 percent Landform: Fan terraces Hydric soil rating: No

Munjar

Percent of map unit: 2 percent Landform: Fan terraces Hydric soil rating: No

301—Wafap-Hamslough, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hgxp Elevation: 150 to 440 feet

Mean annual precipitation: 25 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Wafap, gravelly loam, and similar soils: 70 percent Hamslough, clay, and similar soils: 15 percent

Minor components: 15 percent

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

Description of Wafap, Gravelly Loam

Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Gravelly and clayey alluvium over cobbly channel alluvium over

cemented cobbly and gravelly alluvium derived from volcanic rock

Typical profile

A - 0 to 1 inches: gravelly loam

Bt1 - 1 to 5 inches: cobbly clay loam

Bt2 - 5 to 13 inches: very cobbly clay loam

Bt3 - 13 to 32 inches: extremely cobbly clay loam Bt4 - 32 to 39 inches: extremely cobbly clay loam

Btq - 39 to 46 inches: extremely gravelly sandy clay loam 2Bqm - 46 to 56 inches: cemented cobbly gravelly material

Properties and qualities

Slope: 0 to 2 percent

Percent of area covered with surface fragments: 0.0 percent Depth to restrictive feature: 40 to 60 inches to duripan Natural drainage class: Somewhat poorly drained

Runoff class: Very high

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

low (0.00 to 0.06 in/hr)

Depth to water table: About 13 to 60 inches

Frequency of flooding: Rare Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: C/D Hydric soil rating: No

Description of Hamslough, Clay

Setting

Landform: Stream terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Clayey alluvium over clayey and gravelly alluvium over cemented

cobbly and gravelly alluvium derived from volcanic rock

Typical profile

A1 - 0 to 3 inches: clay

A2 - 3 to 14 inches: cobbly clay

Bw - 14 to 19 inches: extremely gravelly clay Bg - 19 to 27 inches: extremely gravelly sandy clay

2Bqm - 27 to 36 inches: cemented cobbly gravelly material

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to duripan

Natural drainage class: Poorly drained

Runoff class: High

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

low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 80 inches

Frequency of flooding: Occasional Frequency of ponding: Frequent

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): 5w Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: D Hydric soil rating: Yes

Minor Components

Unnamed, loamy-skeletal, duripan 40 to 60 inches

Percent of map unit: 3 percent Landform: Stream terraces Hydric soil rating: No

Unnamed, fine, duripan 40 to 60 inches

Percent of map unit: 3 percent Landform: Stream terraces Hydric soil rating: No

Anita, gravelly duripan

Percent of map unit: 2 percent Landform: Stream terraces Hydric soil rating: Yes

Unnamed, fine-loamy, duripan 40 to 60 inches

Percent of map unit: 2 percent Landform: Stream terraces Hydric soil rating: No

Tuscan taxadjunct

Percent of map unit: 2 percent Landform: Stream terraces Hydric soil rating: No

Unnamed, frequent long ponding

Percent of map unit: 1 percent Landform: Stream terraces

Microfeatures of landform position: Vernal pools

Hydric soil rating: Yes

Oxyaquic argixerolls, very stony

Percent of map unit: 1 percent Landform: Stream terraces Hydric soil rating: No

Unnamed, frequently flooded

Percent of map unit: 1 percent Landform: Flood plains Hydric soil rating: No

302—Redtough-Redswale, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hh0v Elevation: 200 to 400 feet

Mean annual precipitation: 23 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Redtough, loam, and similar soils: 50 percent Redswale, cobbly loam, and similar soils: 35 percent

Minor components: 15 percent

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

Description of Redtough, Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread Microfeatures of landform position: Mounds

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

Parent material: Loamy alluvium over cemented cobbly and gravelly alluvium

derived from volcanic rock

Typical profile

A - 0 to 1 inches: loam

Bt1 - 1 to 7 inches: gravelly loam
Bt2 - 7 to 13 inches: very cobbly loam

Bqm - 13 to 23 inches: cemented very gravelly material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 10 to 20 inches to duripan Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00

in/hr)

Depth to water table: About 2 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D Hydric soil rating: No

Description of Redswale, Cobbly Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread Microfeatures of landform position: Swales

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

Parent material: Cobbly and loamy alluvium over cemented cobbly and gravelly

alluvium derived from volcanic rock

Typical profile

A - 0 to 1 inches: cobbly loam

Bt - 1 to 7 inches: very cobbly loam

Bqm - 7 to 17 inches: cemented very gravelly material

Properties and qualities

Slope: 0 to 3 percent

Percent of area covered with surface fragments: 0.0 percent

Depth to restrictive feature: 4 to 10 inches to duripan

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00

in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None Frequency of ponding: Frequent

Available water storage in profile: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): 8
Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D Hydric soil rating: No

Minor Components

Redswale, frequent long flooding

Percent of map unit: 3 percent

Landform: Fan terraces

Microfeatures of landform position: Swales

Hydric soil rating: Yes

Unnamed, frequent long ponding

Percent of map unit: 3 percent Landform: Fan terraces

Microfeatures of landform position: Vernal pools

Hydric soil rating: Yes

Munjar

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Hydric soil rating: No

Abruptic durixeralfs

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Hydric soil rating: No

Anita, gravelly duripan

Percent of map unit: 2 percent Landform: Fan terraces

Microfeatures of landform position: Swales

Hydric soil rating: Yes

Tuscan

Percent of map unit: 2 percent

Landform: Fan terraces

Microfeatures of landform position: Mounds

Hydric soil rating: No

Unnamed, riser slopes

Percent of map unit: 1 percent Landform: Fan terraces

Hydric soil rating: No

425—Vina fine sandy loam, sandy substratum, 0 to 2 percent slopes, MLRA 17

Map Unit Setting

National map unit symbol: 2w8b6

Elevation: 140 to 240 feet

Mean annual precipitation: 23 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 245 to 255 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Vina, fine sandy loam, sandy substratum, and similar soils: 85 percent

Minor components: 15 percent

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

Description of Vina, Fine Sandy Loam, Sandy Substratum

Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Coarse-loamy alluvium derived from igneous, metamorphic and

sedimentary rock

Typical profile

Ap1 - 0 to 3 inches: fine sandy loam Ap2 - 3 to 11 inches: fine sandy loam A1 - 11 to 23 inches: sandy loam A2 - 23 to 37 inches: sandy loam C1 - 37 to 50 inches: sandy loam

C2 - 50 to 54 inches: loamy coarse sand

C3 - 54 to 80 inches: coarse sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Negligible

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

high (1.13 to 3.68 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare Frequency of ponding: None

Calcium carbonate, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline (0.2 to 1.0 mmhos/cm) Available water storage in profile: Moderate (about 6.4 inches)

Interpretive groups

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

Hydrologic Soil Group: A Hydric soil rating: No

Minor Components

Almendra

Percent of map unit: 5 percent Landform: Alluvial fans Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Charger

Percent of map unit: 5 percent Landform: Alluvial fans Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Redsluff

Percent of map unit: 2 percent Landform: Fan terraces Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Unnamed, water table 40 to 80 inches

Percent of map unit: 2 percent Landform: Alluvial fans Down-slope shape: Linear Across-slope shape: Linear

Hydric soil rating: No

Xerofluvents

Percent of map unit: 1 percent Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

445—Chico loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: hgwz Elevation: 140 to 230 feet

Mean annual precipitation: 22 to 24 inches
Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 245 to 255 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Chico, loam, and similar soils: 85 percent

Minor components: 15 percent

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

Description of Chico, Loam

Setting

Landform: Fan terraces

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Loamy alluvium derived from igneous, metamorphic and

sedimentary rock

Typical profile

Ap - 0 to 5 inches: loam
Bt1 - 5 to 10 inches: clay loam
Bt2 - 10 to 21 inches: clay loam
Bt3 - 21 to 32 inches: clay loam
Bt4 - 32 to 50 inches: loam
Bt5 - 50 to 70 inches: loam
Bt6 - 70 to 80 inches: loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.28

to 0.71 in/hr)

Depth to water table: About 72 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): 1 Land capability classification (nonirrigated): 3c

Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Almendra

Percent of map unit: 5 percent Landform: Alluvial fans Hydric soil rating: No

Redsluff

Percent of map unit: 5 percent Landform: Fan terraces Hydric soil rating: No

Conejo, clay loam

Percent of map unit: 3 percent Landform: Alluvial fans Hydric soil rating: No

Vina, fine sandy loam

Percent of map unit: 2 percent

Landform: Inset fans Hydric soil rating: No

447—Charger fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: hgzf Elevation: 180 to 600 feet

Mean annual precipitation: 24 to 28 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Charger, fine sandy loam, and similar soils: 80 percent

Minor components: 20 percent

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

Description of Charger, Fine Sandy Loam

Setting

Landform: Alluvial fans

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

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

Parent material: Coarse-loamy alluvium derived from igneous, metamorphic and

sedimentary rock over gravelly alluvium derived from volcanic and

metamorphic rock

Typical profile

Ap - 0 to 3 inches: fine sandy loam A1 - 3 to 7 inches: fine sandy loam A2 - 7 to 15 inches: fine sandy loam Bw1 - 15 to 32 inches: sandy loam Bw2 - 32 to 42 inches: sandy loam Bw3 - 42 to 53 inches: sandy loam Bw4 - 53 to 63 inches: sandy loam

C - 63 to 80 inches: extremely gravelly loamy coarse sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Natural drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (2.27 to 4.25

in/hr)

Depth to water table: About 40 to 80 inches

Frequency of flooding: Rare Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 0.5 mmhos/cm) Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

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

Hydrologic Soil Group: A Hydric soil rating: No

Minor Components

Vina, fine sandy loam

Percent of map unit: 8 percent Landform: Alluvial fans Hydric soil rating: No

Redsluff

Percent of map unit: 5 percent Landform: Fan terraces Hydric soil rating: No

Unnamed, sandy-skeletal

Percent of map unit: 2 percent Landform: Alluvial fans Hydric soil rating: No

Unnamed, loamy-skeletal

Percent of map unit: 2 percent Landform: Alluvial fans Hydric soil rating: No

Almendra

Percent of map unit: 2 percent Landform: Alluvial fans Hydric soil rating: No

Wafap

Percent of map unit: 1 percent Landform: Stream terraces Hydric soil rating: No

615—Doemill-Jokerst, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: hgzm Elevation: 160 to 1,000 feet

Mean annual precipitation: 25 to 29 inches Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 250 to 255 days

Farmland classification: Not prime farmland

Map Unit Composition

Doemill, gravelly loam, and similar soils: 50 percent Jokerst, very cobbly loam, and similar soils: 40 percent

Minor components: 10 percent

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

Description of Doemill, Gravelly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest Microfeatures of landform position: Mounds

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: gravelly loam
Bt1 - 1 to 5 inches: gravelly loam
Bt2 - 5 to 9 inches: gravelly loam
Bt3 - 9 to 14 inches: gravelly loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 5.0 percent Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.43

to 1.28 in/hr)

Depth to water table: About 2 to 20 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D Hydric soil rating: No

Description of Jokerst, Very Cobbly Loam

Setting

Landform: Ridges

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest Microfeatures of landform position: Swales

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

Parent material: Loamy residuum weathered from volcanic breccia

Typical profile

A - 0 to 1 inches: very cobbly loam

Bt - 1 to 4 inches: gravelly loam

R - 4 to 14 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 17.0 percent Depth to restrictive feature: 2 to 10 inches to lithic bedrock

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.71

to 1.13 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: Frequent Frequency of ponding: Frequent

Available water storage in profile: Very low (about 0.4 inches)

Interpretive groups

Land capability classification (irrigated): 8 Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D Hydric soil rating: No

Minor Components

Rock outcrop, mudflow breccia

Percent of map unit: 6 percent

Landform: Ridges

Hydric soil rating: No

Lithic xerorthents

Percent of map unit: 3 percent

Landform: Ridges
Hydric soil rating: No

Unnamed, frequent long ponding

Percent of map unit: 1 percent

Landform: Ridges

Microfeatures of landform position: Vernal pools

Hydric soil rating: Yes

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Exhibit A: Draft Delineation of Waters of the United States Maps

