

Southern California Edison Company

# WETLANDS AND OTHER WATERS JURISDICTIONAL DELINEATION REPORT

Gorman-Kern River 66 kV Subtransmission Line Project Kern County and Los Angeles County, California

October 2021

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Gorman-Kern River 66 kV Subtransmission Line Project, Kern County and Los Angeles County

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## **ACRONYMS AND ABBREVIATIONS**

amsl	above mean sea level
Arcadis	Arcadis U.S., Inc.
CAISO	California Independent System Operator
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
CWA	Clean Water Act
°F	degrees Fahrenheit
FAC	Facultative (wetland indicator status)
FACU	Facultative upland species
FACW	Facultative wetland species
GKR	Gorman-Kern River
GO 95	General Order 95, Rules for Overhead Electric Line Construction
GPS	Global Positioning System
HR	Hydrologic Region
HUC	Hydrologic Unit Code
Lidar	Light Detection and Ranging
m	meters
mm	millimeters
NERC	North American Electric Reliability Corporation
NRCS	National Resource Conservation Service
OBL	obligate wetland species
OHWM	ordinary high water mark
PEA	Proponent's Environmental Assessment
Porter-Cologne	Porter-Cologne Water Quality Control Act
Project	Gorman - Kern River 66kV Subtransmission Line Project
RPW	relatively permanent waters
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison Company
SWRCB	State Water Resources Control Board
TLRR	Transmission Line Rating Remediation
TNW	traditional navigable waters
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey

## **1 INTRODUCTION**

Arcadis U.S., Inc. (Arcadis) was retained by Southern California Edison Company (SCE) to conduct a jurisdictional delineation to determine the extent of Waters of the United States (U.S.), including wetlands, pursuant to the federal Clean Water Act (CWA) Section 404 regulated by the United States Army Corps of Engineers (USACE), and CWA 401 and the Porter-Cologne Water Quality Control Act (Porter-Cologne) regulated by the Regional Water Quality Control Board (RWQCB). The delineation also identified the extent of lakes, rivers, or streambeds and associated riparian vegetation pursuant to the California Fish and Game Code Section 1600-1617, regulated by the California Department of Fish and Wildlife (CDFW), along the Gorman-Kern River 66 kV Subtransmission Line Project (GKR Project) in Kern and Los Angeles counties, California.

The results of this delineation will be used to support the Project's design and implementation and to maximize avoidance and minimization of impacts on jurisdictional waters, including wetlands; to prepare a Proponent's Environmental Assessment (PEA); to support additional environmental assessment and permitting as needed; and to obtain permits for construction, if required.

## 1.1 Gorman-Kern River Project Background

The GKR Project's northern terminus is at the Kern River 1 Hydroelectric Substation located approximately 13 miles east-northeast of the City of Bakersfield along California State Route 178 (SR 178) in the Kern River Canyon. The GKR Project's eastern terminus is at Banducci Substation, located west-southwest of the City of Tehachapi. The GKR Project's southern terminus is at Gorman Substation, located east of the community of Gorman.

The GKR Project contains five distinct Segments:

- Segment 1 spans approximately 20.4 miles from the existing Kern River 1 Hydroelectric Substation to and including Structure M20-T3 (a location referred to as "the T"). The existing structures in Segment 1 support portions of the Gorman-Kern River and Banducci-Kern River 66 kV subtransmission lines.
- Segment 2 spans approximately 26.5 miles from Structure M20-T3 to and including Structure M46-T6. The existing structures in Segment 2 support portions of the Gorman-Kern River 66 kV Subtransmission Line.
- Segment 3 spans approximately 4.1 miles from Structure M46-T6 to the existing Gorman Substation. The existing structures in Segment 3 support portions of the Gorman-Kern River and Frazier Park-Gorman 66 kV subtransmission lines.
- Segment 4 spans approximately 11.3 miles from Structure M20-T3 to and including Structure M11-T3. The existing structures in Segment 4 support portions of the Banducci-Kern River 66 kV Subtransmission Line.
- Segment 5 spans approximately 3 miles from Pole X7666E to the existing Banducci Substation. The existing structures in Segment 5 support portions of the Banducci-Kern River 66 kV Subtransmission Line, distribution circuitry, and telecommunications infrastructure.

## **2 PROJECT LOCATION**

The GKR Project is located in Kern County, Los Angeles County, and the cities of Arvin and Bakersfield. The GKR Project's northern terminus is at the Kern River 1 Hydroelectric Substation located approximately 13 miles east-northeast of the City of Bakersfield along California State Route 178 (SR 178) in the Kern River Canyon. The GKR Project's eastern terminus is at Banducci Substation, located west-southwest of the City of Tehachapi. The GKR Project's southern terminus is at Gorman Substation, located east of the community of Gorman (Attachment A, Figure 1).

Specifically, the Project is located on the U.S. Geological Survey *Rio Bravo Ranch, Edison, Arvin, Tejon Hills, Pastoria Creek, Grapevine, Frazier Mountain, Lebec, Bear Mountain, Tejon Ranch, and Cummings Mountain* 7.5-minute quadrangles.

## **3 ENVIRONMENTAL SETTING**

The GKR Project alignment is located within the Central Valley and the Tehachapi and Greenhorn mountains. Yearly precipitation in Bakersfield averages 5.8 inches (14.7 centimeters), with an average 11.7 inches (29.7 centimeters) at Tejon Ranch. The highest rainfall is recorded during the winter months (December to March), when frontal systems bring about 1 to 2 inches (2.5 to 5 centimeters) to the area each month, depending on the location. Generally, summer thundershowers don't provide reliable precipitation on an annual basis (Western Regional Climate Center 2019).

Temperatures in the Bakersfield area exhibit seasonal extremes, with a mean annual temperature of 64.1 degrees Fahrenheit (°F), an average maximum July temperature of 100.9°F, and an average January minimum temperature of 35.3°F. An average of 118.3 days reach temperatures above 90°F each year, with average yearly temperatures below freezing recorded for 35.3 days (Western Regional Climate Center 2019). At Tejon Ranch, the mean annual temperature is 63.6°F, with an average July maximum of 95.9°F and a January minimum of 36.6°F.

## 3.1 Topography

The GKR Project occurs at the confluence of several mountain ranges. The northern terminus of the GKR Project alignment is located in the Kern River drainage in the southern Sierra Nevada at the Kern River 1 Hydroelectric Substation. From there, the alignment passes south through a portion of the San Joaquin Valley before traversing north-facing Grapevine Canyon, which separates the San Emigdio Mountains to the west and the Tehachapi Mountains to the east and the Sierra Pelona Mountains to the southeast. The Tehachapi Mountains link the southern Sierra Nevada to the northeast with the Transverse Ranges to the south, and also separate the San Joaquin Valley to the northwest from the Mojave Desert to the southeast. The west-east running portion of the GKR Project alignment segment extends east through the Tehachapi Mountains to its terminus at the Banducci Substation.

The GKR Project alignment intersects major mountain ranges that link the Coast Ranges and Transverse Ranges with the Sierra Nevada. The Tehachapi Mountains merge with the southern Sierra Nevada in the northeast; the San Emigdio and Sierra Pelona Mountains at the southern end of the Project alignment link with the Transverse Ranges to the south; and, to the north, the San Emigdio Mountains eventually link with other Transverse Ranges and the southern end of the inner Coast Ranges. Elevation in the Project

area ranges from a low of approximately 600 feet above mean sea level (amsl) to a high of approximately 5,000 feet amsl.

## 3.2 Hydrology

Surface waters are delineated by the United States Geological Survey (USGS), which divides surface waters into successively smaller hydrologic units classified into four levels: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged within each other, from the smallest (cataloging units) to the largest (regions). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to eight digits based on the four levels of classification in the hydrologic unit system. The first level of classification divides the Nation into 21 major geographic areas, or regions. The second level of classification divides the 21 regions into 221 sub-regions. A sub-region includes the area drained by a river system, a reach of a river and its tributaries in that reach, a closed basin(s), or a group of streams forming a coastal drainage area. The third level of classification is the cataloging unit, the smallest element in the hierarchy of hydrologic units. A cataloging unit is a geographic area representing part or all of a surface drainage basin, a combination of drainage basins, or a distinct hydrologic feature (sometimes referred to as watersheds).

The GKR Project alignment is within the California Region (18) and the Tulare-Buena Vista Lakes Subregion (1803). The GKR Project is located within the following sub-watershed HUs: Cottonwood Creek-Kern River (1803000301), Pleitito Creek-Kern Lake Bed (1803000312), Caliente Creek (1803000304), Lake Paulina-Comanche Creek (1803000306), Caparell Creek-Frontal Kern Lake Bed (1803000310), Tejon Creek (1803000305), El Paso Creek (1803000308), Liveoak Canyon-Pastoria Creek (1803000309), Grapevine Creek (1803000307), and Upper Piru Creek (1807010205). The Kern River is the major surface water feature along the Project alignment.

## 3.3 Water Quality

#### 3.3.1 Beneficial Uses

The Project is located within the Los Angeles RWQCB Los Angeles Region Basin Plan California (RWQCB 2014) and the Central Valley RWQCB Tulare Lake basin (RWQCB 2015). The Basin Plans identify beneficial uses and water quality objectives that are the water quality standards for each Region. Beneficial uses for drainages located within the Project area are shown below in Table 1 identified by each RWQCB; the primary beneficial uses as determined by prevalence are as follows:

- **AGR.** Agricultural Supply. Beneficial uses of waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation for range grazing.
- AQUA. Aquaculture Uses of water for aquaculture or agriculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes
- **BIOL.** Preservation of Biological Habitats of Special Significance Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or

Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

- **COLD.** Cold Freshwater Habitat. Uses of water that support cold water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates
- **COMM.** Commercial and Sportfishing. Beneficial uses of waters used for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption.
- **EST.** Estuarine Habitat. Use of water that supports estuarine ecosystems, including but not limited to, preservation or enhancement for vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds), and the propagation, sustenance, and migration of estuarine organisms.
- **FRSH.** Freshwater Replenishment. Uses of water for natural or artificial maintenance of surface water quantity or quality
- **GWR.** Ground Water Recharge. Beneficial uses of waters used for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
- **IND.** Industrial Service Supply. Beneficial uses of water for industrial activities that do not depend primarily on water quality, including, but not limited to mining, cooling water supply, geothermal energy production, hydraulic conveyance, gravel washing fire protection, and oil well repressurization.
- LREC-1. Limited Water Contact Recreation. Uses of water for recreational activities involving body contact with water
- MAR. Marine Habitat. Support marine ecosystems, including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife.
- **MUN.** Municipal and Domestic Supply. Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.
- NAV. Navigation. Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
- **POW.** Hydropower Generation. Uses of water for hydropower generation.
- **RARE.** Preservation of Rare, Threatened or Endangered Species. Uses of waters that support habitats necessary for the survival and successful maintenance of plant or animal species established under state and/or federal law as rare, threatened, or endangered.
- **REC-1.** Water Contact Recreation. Beneficial uses of waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.
- REC-2. Noncontact Water Recreation. Beneficial uses of waters used for recreational activities
   involving proximity to water, but not normally involving body contact with water where ingestion of

water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.

- **SAL.** Inland Saline Water Habitat Beneficial uses of waters that support inland saline water ecosystems including, but not limited to, preservation and enhancement of aquatic saline habitats, vegetation, fish, and wildlife, including invertebrate
- **WARM.** Warm Freshwater Habitat. Beneficial uses of waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
- **WILD.** Wildlife Habitat. Beneficial uses of waters that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.

#### 3.3.2 Impaired Water Bodies, CWA Section 303(d)

Listing a water body as impaired in California is governed by the Water Quality Policy for developing California CWA, Section 303(d) Listing Policy. The state and regional boards assess water quality data for California's waters every two years to determine if they contain pollutants at levels that exceed protective water quality criteria and standards. This biennial assessment is required under Section 303(d) of the CWA.

Based on this assessment, there are no impaired water bodies in the Project area.

Feature	MUN	AGR	PRO	DN	GWR	FRSH	NAV	POW	REC-1	REC-2	COMM	AQUA	COLD	WARM	SAL	WILD	BIOL	RARE	MIGR	SPWN	WQE	FLD	SHELL	EST	WET	LREC-1	
Central Valley (R5)	х	x	x	х	х	х	х	х	х	х	х	х	x	х		х	х	х	х	х				х			
Los Angeles Region (R4)	x	x	x	х	x	х	х	x	x	x	х	x	Х	х		х	x	x	x	x			x	x	x	х	-
MUN – Municipal and Domestic Supply AGR – Agricultural Supply PRO – Industrial Process Supply WILD – Wildlife Habitat IND – Industrial Service Supply GWR – Ground Water Recharge FRSH – Freshwater Replenishment NAV – Navigation POW Hydropower Generation						REC1 – Water Contact Recreation REC2 – Non-contact Water Recreation COMM – Commercial and Sport Fishing AQUA – Aquaculture COLD – Cold Freshwater Habitat WARM – Warm Freshwater Habitat SAL – Inland Saline Water Habitat BIOL – Preservation of Biological Habitats of Special Significance RARE – Rare, Threatened or Endangered Species					MGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and Development WQE – Water Quality Enhancement FLD – Flood Peak Attenuation/Flood Water Storage X – Existing Beneficial Uses SHELL- Shellfish harvesting EST – Estuarine Habitat WET – Wetland Habitat																

Table 1. Beneficial Uses for Drainages	Located within the Project Area
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### 3.4 Soils

The GKR Project is located within the Soil Survey of Kern County, California Southwestern Part (National Resource Conservation Service [NRCS] 2009), Soil Survey of Kern County Southeastern Part (NRCS 1981), Soil Survey of Kern County Northeastern Part and Southeastern Part of Tulare County (NRCS 2007), Soil Survey of Antelope Valley Area California (NRCS 1970), and Soil Survey of Sequoia National Forest Parts of Fresno, Kern, Tulare Counties of California (NRCS 1996). The Project area is characterized by several soil types. Soils in a portion of the Project are not available. Soil maps are provided in Attachment C.

Detailed soil map units within the survey area and associated access roads are provided in Table 3.

Soil Map Unit*	Description	Hydric Criteria*
13	Bitcreek-Dibble-Eaglerest complex, 15 to 50 percent slopes	4
14	Brecken-Cuyama-Pleito complex, 15 to 60 percent slopes	4
15	Calicreek loamy coarse sand, 0 to 2 percent slopes, occasionally flooded	4
16	Calicreek loamy coarse sand, 0 to 2 percent slopes, rarely flooded	4
17	Calicreek sandy loam, 0 to 2 percent slopes, occasionally flooded	4
20	Chanac-Pleito complex, 2 to 5 percent slopes	2, 4
22	Chanac-Pleito complex, 5 to 30 percent slopes	2, 3, 4
26	Chino loam	2
27	Chuchupate gravelly sandy loam, 50 to 75 percent slopes	2, 4
29	Cieneba-Vista-Rock outcrop complex, 30 to 60 percent slopes	4
39	Dune land	2, 3
43	Excelsior sandy loam, 0 to 2 percent slopes, MLRA 17	4
44	Feethill-Vista-Walong association, 15 to 60 percent slopes	4
45	Fluvents, ponded	3
46	Frazier very gravelly sandy loam, 50 to 75 percent slopes	2
48	Geghus-Tecuya association, 30 to 75 percent slopes	2, 4
49	Geghus-Tecuya association, 9 to 30 percent slopes	2, 4
51	Gorman-Typic Xerorthents, mesic-Xerorthents, shallow, complex, 30 to 100 percent slopes	2, 4
52	Gorman sandy loam, 15 to 30 percent slopes, eroded	2
53	Gorman sandy loam, 15 to 50 percent slopes	2
54	Gorman sandy loam, 30 to 50 percent slopes, eroded	2
56	Gorman sandy loam, 9 to 15 percent slopes, eroded	2

#### Table 2.Hydric Soil Map Units

Table 2. Hydric Soil Map Units

Soil Map Unit*	Description	Hydric Criteria*
57	Guijarral-Klipstein complex, 2 to 5 percent slopes	4
58	Guijarral sandy loam, 0 to 2 percent slopes	4
59	Guijarral sandy loam, 2 to 9 percent slopes	4
60	Gullied land	2, 3, 4
70	Hawk gravelly sandy loam, 9 to 15 percent slopes	2, 4
71	Hesperia loamy sand, 0 to 2 percent slopes	2, 4
72	Hesperia sandy loam, 0 to 2 percent slopes	2, 3
75	Klipstein-Guijarral complex, 5 to 15 percent slopes	4
77	Loslobos-Walong association, 5 to 30 percent slopes	2, 4
78	Millsholm rocky loam, 30 to 50 percent slopes, eroded	2
80	Nord fine sandy loam, 0 to 2 percent slopes, rarely flooded	4
82	Oak Glen loam, 2 to 9 percent slopes	3
85	Pits	4
86	Pits and dumps	4
90	Pleito-Delvar complex, 2 to 15 percent slopes	4
92	Pleito-Trigo-Chanac complex, 15 to 50 percent slopes	2, 4
93	Pleito gravelly sandy clay loam, 2 to 5 percent slopes	2, 4
94	Pleito sandy clay loam, 2 to 5 percent slopes	2, 5
95	Pleito sandy clay loam, 5 to 9 percent slopes	2, 6
96	Pleito sandy clay loam, 9 to 50 percent slopes	2, 7
97	Premier sandy loam, 0 to 2 percent slopes	4
98	Premier sandy loam, 2 to 5 percent slopes	4
102	Riverwash	4
104	Rough broken land	4
105	Sandy alluvial land	4
108	Steuber sandy loam, 0 to 2 percent slopes	4
121	Vineland-Bakersfield complex, 0 to 1 percent slopes, drained	4
128	Walong sandy loam, 15 to 30 percent slopes	4
129	Walong sandy loam, 30 to 50 percent slopes	4
131	Water	Null
133	Whitewolf-Riverwash complex, 0 to 5 percent slopes, frequently flooded	4
135	Whitewolf loamy sand, 0 to 2 percent slopes, occasionally flooded	4

#### Table 2. Hydric Soil Map Units

Soil Map Unit*	Description	Hydric Criteria*
139	Xeric Torriorthents-Badlands complex, 30 to 75 percent slopes	2, 4
140	Xeric Torriorthents-Calcic Haploxerepts association, 15 to 60 percent slopes	2, 4
141	Xerofluvents, 0 to 5 percent slopes	4
142	Xerofluvents, occasionally flooded-Riverwash complex, 0 to 5 percent slopes	4

Notes:

- 1. All Histels except Folistels and Histosols except Folists; or
- 2. Map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soil meets the definition of a hydric soil;
- 3. Map unit components that are frequently ponded for long duration or very long duration during the growing season that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soil meets the definition of a hydric soil; or
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
  - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - b. Show evidence that the soils meet the definition of a hydric soil.

\* Soil map units were not confirmed in the field.

## **4 VEGETATION COMMUNITIES**

Thirty-three vegetation types were identified on or near the Project area during the 2017 - 2019 surveys, including ten woodland vegetation types (California Buckeye Groves, California Sycamore - Coast Live Oak Riparian Woodlands, Fremont Cottonwood Forest and Woodland, Canyon Live Oak Forest and Woodland, Blue Oak Woodland and Forest, Valley Oak Woodland and Forest, Valley Oak Riparian Forest and Woodland, Mixed Oak Forest and Woodland, Goodding's Willow - Red Willow Riparian Woodland and Forest, and Shining Willow Groves); twelve shrubland vegetation types (Cheesebush – Sweetbush Scrub, Mulefat Thickets, Wedge Leaf Ceanothus/Buck Brush Chaparral, Acton's and Virgin River Brittle Brush -Net-veined Goldeneye Scrub, California Joint-fir - Longleaf Joint-fir Scrub, Narrowleaf Goldenbush -Bladderpod Scrub, Rubber Rabbitbrush Scrub, California Buckwheat Scrub, Scalebroom Scrub, Tucker Oak Chaparral, Arroyo Willow Thickets, and Tamarisk Thickets); and eleven herbaceous communities (Yerba Mansa – Nuttall's Sunflower – Nevada Goldenrod Alkaline Wet Meadows, Salt Grass Flats, Baltic and Mexican Rush Marshes, Ashy Ryegrass - Creeping Rye Grass Turfs, Common Monkey Flower Seeps, Needle Grass – Melic Grass Grasslands, American Bulrush Marsh, Wild Oats and Annual Brome Grasslands, Red Brome or Mediterranean Grass Grassland, Cheatgrass - Medusahead Grassland, and Perennial Pepper Weed – Prickly Lettuce Patches). Five additional types were also mapped, Active Agricultural, Ornamental/Landscaped, Open Water, Developed and Disturbed Habitat.

The National Wetland Plant List (Lichvar et al. 2016) designates wetland indicator species based on their occurrence in wetland habitats at least some of the time. For the purposes of this report, wetland indicator plants are identified as obligate species (OBL), facultative wetland species (FACW), and/or facultative species (FAC). Natural communities dominated (>50 percent relative cover) by wetland indicator plants

are listed first in Section 4.1 below, followed by upland vegetation types (Section 4.2). All observed alliances and/or associations within the survey area are shown in Table 3 along with the wetland indicator status of the dominant species.

Alliance Name	Alliance Scientific Name	Association(s)	Wetland Indicator Status for Dominant Species in Alliance <sup>1</sup>						
Natural Communities Dominated by Species with Wetland Indicator Status of FAC, FACW, OBL									
Woodland Alliances									
California Sycamore – Coast Live Oak Riparian Woodlands	Platanus racemosa – Quercus agrifolia Woodland Alliance	Platanus racemosa – Salix laevigata / Salix lasiolepis – Baccharis salicifolia Association	FACW						
Goodding's Willow - Red Willow Riparian Woodland and Forest	Salix gooddingii - Salix Iaevigata Woodland Alliance	Salix laevigata Association Salix laevigata / Salix lasiolepis Association	FACW						
Shining Willow Groves	Salix lucida Woodland Alliance	Salix lucida subsp. lasiandra Association Salix lucida subsp. lasiandra / Urtica urens – Urtica dioica Association	FACW						
Fremont Cottonwood Forest and Woodland	Populus fremontii – Fraxinus velutina – Salix gooddingii Forest and Woodland Alliance	Populus fremontii – Salix lasiolepis Association Populus fremontii – Salix (laevigata, lasiolepis, lucida subsp. lasiandra) Association	FACW (willow dominants)						
Valley Oak Riparian Forest and Woodland	<i>Quercus lobata</i> Riparian Forest and Woodland Alliance	Quercus lobata – Salix lasiolepis Association Quercus lobata – Salix laevigata Provisional Association	FACW (willow dominants)						
Shrubland Alliances									
Arroyo Willow Thickets	<i>Salix lasiolepis</i> Shrubland Alliance	Salix lasiolepis – Salix lucida Association Salix lasiolepis Association	FACW						
Mulefat thickets	<i>Baccharis salicifolia</i> Shrubland Alliance	Baccharis salicifolia Association	FACW						
Herbaceous Alliances									
Yerba Mansa – Nuttall's Sunflower – Nevada Goldenrod Alkaline Wet Meadows	Anemopsis californica – Helianthus nuttallii – Solidago spectabilis Herbaceous Alliance	Anemopsis californica Provisional Association Solidago (confinis, spectabilis) Provisional Association	OBL						
Salt Grass Flats	<i>Distichlis spicata</i> Herbaceous Alliance	Distichlis spicata – Hordeum murinum Association	FAC						
Ashy Ryegrass- Creeping Ryegrass Turfs	Leymus cinereus – Leymus triticoides Herbaceous Alliance	Leymus triticoides – Bromus spp. – Avena spp. Association	FAC						

 Table 3.
 Vegetation Alliances and Associations Mapped within the Survey Area

Alliance Name	Alliance Scientific Name	Association(s)	Wetland Indicator Status for Dominant Species in Alliance <sup>1</sup>
Common Monkey Flower Seeps	<i>Mimulus</i> [ <i>guttatus</i> ] Herbaceous Alliance	Mimulus guttatus Association	OBL
Baltic and Mexican Rush Marshes	<i>Juncus arcticus</i> (var. <i>balticus, mexicanus</i> ) Herbaceous Alliance	<i>Juncus arcticus</i> var. <i>balticus</i> Association	FACW
American Bulrush Marsh	<i>Schoenoplectus americanus</i> Herbaceous Alliance	Schoenoplectus americanus / OBL	
Perennial Pepperwood Patches	<i>Lepidium latifolium -</i> Herbaceous Semi-Natural Alliance	<i>Lepidium latifolium</i> Semi-natural Association	FACW
Natural Communities D	ominated by Upland Species (F	ACU or no wetland indicator status	)
Woodland and Forest A	lliances		
California Buckeye Groves	<i>Aesculus californica</i> Woodland Alliance	Aesculus californica Association	None
Canyon Live Oak Forest and Woodland	<i>Quercus chrysolepis</i> Forest and Woodland Alliance	Quercus chrysolepis Association	None
Blue Oak Woodland and Forest	<i>Quercus douglasii</i> Woodland and Forest Alliance	Quercus douglasii – Aesculus californica / grass Association Quercus douglasii – Pinus sabiniana Association Quercus douglasii - Quercus lobata Association Quercus douglasii / Bromus spp. – Daucus pusillus Association Quercus douglasii / Eriogonum fasciculatum / herbaceous Association	None
Valley Oak Woodland and Forest	<i>Quercus lobata</i> Woodland and Forest Alliance	Quercus lobata / grass Association	None
Mixed Oak Forest and Woodland	Quercus [agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni] Forest and Woodland Alliance	Mixed oak – <i>Aesculus californica /</i> grass Association	None
Shrubland Alliances			1
Scalebroom Scrub	Lepidospartum squamatum	Lepidospartum squamatum / ephemeral annuals Association	FACU
Cheesebush – Sweetbush Scrub	<i>Ambrosia salsola – Bebbia juncea</i> Shrubland Alliance	Ambrosia salsola Association	None
heWedge Leaf Ceanothus Chaparral, Buck Brush Chaparral	<i>Ceanothus cuneatus</i> Shrubland Alliance	Ceanothus cuneatus Association	None

 Table 3.
 Vegetation Alliances and Associations Mapped within the Survey Area

Alliance Name	Alliance Scientific Name	Association(s)	Wetland Indicator Status for Dominant Species in Alliance <sup>1</sup>
Acton's and Virgin River Brittle Brush – Net- veined Goldeneye Scrub	<i>Encelia</i> [ <i>actonii, virginensis</i> ] – <i>Viguiera reticulata</i> Shrubland Alliance	Encelia actonii Association	None
California Joint-fir - Longleaf Joint-fir Scrub	<i>Ephedra californica – Ephedra trifurca</i> Shrubland Alliance	<i>Ephedra californica /</i> annual – perennial herb Association	None
Narrowleaf Goldenbush – Bladderpod Scrub	Ericameria linearifolia – Cleome isomeris Shrubland Alliance	Cleome isomeris Association	None
Rubber Rabbitbrush Scrub	<i>Ericameria nauseosa</i> Shrubland Alliance	Ericameria nauseosa Association	None
California Buckwheat Scrub	<i>Eriogonum fasciculatum</i> Shrubland Alliance	Eriogonum fasciculatum Association	None
Tucker Oak Chaparral	<i>Quercus john-tuckeri</i> Shrubland Alliance	Quercus john-tuckeri Association	None
Tamarisk Thickets	<i>Tamarix</i> spp. Semi-Natural Stands	Tamarix spp. Association	None
Herbaceous Alliances			
Needle Grass – Melic Grass Grassland	<i>Nassella</i> spp. – <i>Melica</i> spp. Herbaceous Alliance	Nassella cernua Association	None
Wild Oats and Annual Brome Grasslands	<i>Avena</i> spp <i>. – Bromus</i> spp. Semi-Natural Herbaceous Alliance	Bromus diandrus - Mixed herbs Association Bromus hordeaceus – Amsinckia menziesii – Hordeum murinum Association	None
Cheatgrass – Medusahead Grassland	Bromus tectorum – Taeniatherum caput-medusae Semi-Natural Herbaceous Alliance	Bromus tectorum – Bromus diandrus Association	None
Red Brome or Mediterranean Grass Grasslands	Bromus rubens – Schismus [arabicus, barbatus] Semi- Natural Herbaceous Alliance	<i>Bromus rubens</i> – Mixed herbs Association	None

 Table 3.
 Vegetation Alliances and Associations Mapped within the Survey Area

Notes:

1 Lichvar et al. 2016

Below are brief descriptions of each alliance and any associations within a given alliance that were observed along the GKR Project alignment. Species mentioned in these descriptions were observed in the Project area; these descriptions do not represent associated species for a given vegetation type statewide.

## 4.1 Natural Communities Dominated by Plants with Wetland Indicator Status

Fourteen alliances dominated by species with a FAC or FACW wetland indicator status were mapped along the GKR Project alignment; these species are included in the National Wetland Plant List (Lichvar et al. 2016), based on their occurrence in wetland habitats at least some of the time. These vegetation types generally occur in emergent wetlands, flats, meadows and along stream channels – five woodland alliances, two shrubland alliances and/or associations, and seven herbaceous alliances.

### 4.1.1 Woodland and Forest Vegetation

California Sycamore – Coast Live Oak Riparian Woodlands (*Platanus racemosa* – *Quercus agrifolia* Woodland Alliance)

California Sycamore – Coast Live Oak Riparian Woodlands are dominated by the winter-deciduous California sycamore, also called western sycamore, members of the Sycamore Family (Platanaceae) that can exceed 100 feet (30 meters) in height at maturity. Woodlands dominated by California sycamore occur from Redding south through the mountains and valleys surrounding the Central Valley to the Tehachapi Mountains and from San Francisco south to Baja California in the Coast Ranges, Transverse Ranges, and Peninsular Ranges, mostly below 6,500 feet (2,000 meters) amsl and often below 4,000 feet (1,220 meters). Although the revised name of this alliance includes coast live oak (*Quercus agrifolia*), coast live oak does not occur with California sycamore in this area. Within the GKR alignment, California Sycamore Woodlands are represented by the *Platanus racemosa – Salix laevigata / Salix lasiolepis – Baccharis salicifolia* Association, which occurs in the Kern River drainage in the southern Sierra Nevada near the terminus of the GKR alignment at the Kern River 1 Hydroelectric Substation.

# Goodding's Willow - Red Willow Riparian Woodland and Forest (*Salix gooddingii - Salix laevigata* Woodland and Forest Alliance)

Goodding's Willow - Red Willow Woodland and Forest are dominated by Goodding's willow and red willow, often mixed with other willow and woody species, which form an open to continuous canopy. Red willow is a winter-deciduous tree to 50 feet (15 meters) or more in height, with dark reddish-brown bark with many furrows and interconnecting ridges. It has an irregular open crown at maturity and slender light to dark orange-brown branchlets. Leaves are lance-shaped, with minute teeth or scallops along the margins and a yellow mid-vein, with upper surface darker green and lower surface paler and minutely hairy; this species also has overlapping bud scales, an unusual trait for most willows. Both Goodding's willow and red willow has a wetland indicator status of FACW, meaning that it usually occurs in wetlands (67-99% of the time), but is occasionally found in non-wetlands (Lichvar et al. 2016). Within the GKR alignment, Goodding's Willow - Red Willow Woodland and Forest are represented by the *Salix laevigata* Association and the *Salix laevigata – Salix lasiolepis* Association. The *Salix laevigata* Association, along Grapevine Creek at Fort Tejon State Historic Park, in a small drainage north of the Gorman Substation, and in the Castac Valley west of Castac Lake. The *Salix laevigata – Salix lasiolepis* Association was observed in one stand along Grapevine Creek at Fort Tejon State Historic Park, in a small drainage north of the Gorman Substation, and in the Castac Valley west of Castac Lake. The *Salix laevigata – Salix lasiolepis* Association was

### Shining Willow Groves (Salix Iucida Woodland Alliance)

Shining Willow Groves are dominated by shining willow, also called Pacific willow or yellow willow. Shining willow occurs in mixed riparian forests and woodlands within the GKR alignment, occasionally occurring in large enough stands to be mapped as an alliance. Shining willow is a winter-deciduous tree that reaches 60 feet (18 meters) in height or more at maturity, with an unsymmetrical rounded crown and gray to brownish bark that becomes fissured and darkens in age. Leaves are long-pointed and lance-shaped, with shiny green upper surfaces, whitish lower surfaces, and minute teeth along margins that are often tipped with tiny glands; the leaf stalks (petioles) also often bear glands. Like other willows and cottonwoods, male and female flowers are produced on different trees in spring. Shining willow is relatively short-lived, surviving for 40 to 50 years before senescing. Shining willow has a wetland indicator status of FACW, meaning that it usually occurs in wetlands (67-99% of the time), but is occasionally found in non-wetlands (Lichvar et al. 2016). Shining Willow Groves within the GKR alignment include the *Salix lucida* subsp. *lasiandra* Association and the *Salix lucida* subsp. *lasiandra* / *Urtica urens* – *Urtica dioica* Association. The *Salix lucida* subsp. *lasiandra* Association was observed adjacent to Castac Lake and its associated drainage, Crane Canyon Creek. The *Salix lucida* subsp. *lasiandra* / *Urtica urens* – *Urtica dioica dioica* Association was observed in a tributary to Gorman Creek near the Gorman Substation.

## Fremont Cottonwood Forest and Woodland (Populus fremontii – Fraxinus velutina – Salix gooddingii Forest and Woodland Alliance)

Fremont Cottonwood Forest and Woodland is dominated by Fremont cottonwood, a tall winter-deciduous tree to 100 feet (30 meters) or more feet in height, with rough fissured grayish bark and a broad crown at maturity. Branchlets are stout and pale green, supporting triangular-shaped coarsely-toothed leaves with a broad base, narrow pointed tip, and shiny green on both surfaces. Two other species are listed as members of this alliance, velvet ash (*Fraxinus velutina*) and Goodding's willow. Goodding's willow occurred in several locations as an associated species. Fremont cottonwood has no wetland indicator status, despite its frequent presence along streams and rivers. However, the two mapped associations of Fremont Cottonwood Forest and Woodland within the GKR alignment support wetland indicator species as codominants, especially arroyo willow, red willow, shining willow, and Goodding's willow, all of which have a wetland indicator status of FACW, meaning that they usually occur in wetlands (67-99% of the time, Lichvar et al. 2016).

Fremont Cottonwood Forest and Woodland occurs along floodplains, rivers, intermittent and perennial streams, as well as near springs and in valleys with a high water table below 6,500 feet (2,000 meter) amsl in much of interior California east to Colorado, south into New Mexico, a few areas in southwestern Texas, and a few locations in northwestern Mexico. This forest community forms an open to continuous canopy with associated shrubs and herbaceous species. Within the GKR alignment, associated species include shining willow (*Salix lucida* subsp. *lasiandra*), red willow, arroyo willow, California blackberry, and non-native grasses and herbs such as broadleaved pepperweed (*Lepidium latifolium*).

Mapped associations of Fremont Cottonwood Forest include the *Populus fremontii* – Salix lasiolepis Association and the *Populus fremontii* – Salix (laevigata, lasiolepis, lucida subsp. lasiandra) Association. The *Populus fremontii* – Salix lasiolepis Association was observed west of Castac Lake in the Castac Valley in one stand. The *Populus fremontii* – Salix (laevigata, lasiolepis, lucida subsp. lasiandra) Association was observed in several locations in Grapevine Canyon north of Lebec.

#### Valley Oak Riparian Forest and Woodland (Quercus lobata Riparian Woodland Alliance)

Valley Oak Riparian Forest and Woodland is dominated by valley oak, an evergreen tree in the Beech Family (Fagaceae). Valley oak occurs in woodlands and savannas in relatively deep soils in moist valley bottoms and on slopes up to 6,000 feet (1,830 meters). Historically, valley oaks were widespread in the Great Central Valley, extending into the Coast Ranges, Sierra Nevada, and Transverse Ranges as well. Valley oak is a large, winter deciduous tree that has a high tolerance of temporary flooding and also tolerates drought if roots reach subterranean moisture. Valley Oak Woodland consists of scattered, large, mature trees growing with amongst willows in the Project area. Soils tend to be alluvial or from original well-weathered rock. Valley oak has a FACU wetland indicator status, meaning it occurs in wetlands 1-33% of the time; all associations within this alignment on the GKR alignment have a FACW wetland indicator status, including arroyo willow and red willow, meaning that they usually occur in wetlands (67-99% of the time, Lichvar et al. 2016). Mapped associations of Valley Oak Riparian Forest and Woodland include the *Quercus lobata – Salix lasiolepis* Association occurs in one location near the entrance to Fort Tejon State Historic Park. The *Quercus lobata – Salix laevigata* Provisional Association occurs within Fort Tejon State Historic Park along Grapevine Creek.

### 4.1.2 Shrubland Vegetation

#### Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance)

Arroyo Willow Thickets are dominated by arroyo willow, a large shrub to small tree in the Willow Family (Salicaceae) that can reach 30 feet (10 meters) or more feet in height under favorable conditions. Shrublands dominated by arroyo willow occur primarily on the banks and benches of streams and rivers, as well as seeps along slopes and ephemeral drainages below 7,200 feet (2,170 meters) amsl if sufficient moisture is present at depth. It can be found throughout California and extends north to British Columbia and east from the western half of Idaho south to Texas and into Mexico. Arroyo Willow has a wetland indicator status of FACW (Lichvar et al. 2016). Within the GKR alignment, Arroyo Willow Thickets are represented by the *Salix lasiolepis* Association and the *Salix lasiolepis – Salix lucida* Association. The *Salix lasiolepis* Association was observed in two general locations: near the Kern River 1 Hydroelectric Substation along the Kern River margins and in south-facing drainages below the crest of the southern Tehachapi Mountains in tributaries to Gorman Creek immediately north of the Gorman Substation. The *Salix lasiolepis – Salix lucida* Association was observed in one general location along Grapevine Creek between Fort Tejon State Historic Park and Lebec.

#### Mulefat Thickets (Baccharis salicifolia Shrubland Alliance)

Mulefat Thickets are dominated by mulefat, a shrub in the Sunflower Family (Asteraceae). Thickets dominated by mulefat occur in canyon bottoms, floodplains, irrigation ditches, lake margins, and stream channels up to 4,100 feet (1,250 meters) amsl with distribution across California, Arizona, Texas and Mexico.

this species has a wetland indicator status of FACW (Lichvar et. al 2016), meaning that it is a plant that is equally likely to occur in wetlands and non-wetlands (34-66 percent of the time, Lichvar et al. 2016).

Within the GKR alignment, Mulefat Thickets are represented by the *Baccharis salicifolia* Association, which occurred in four drainages within the alignment: along El Paso Creek in the San Joaquin Valley south of Comanche Point; just southeast of Grapevine in a wash; in a drainage on the west side of Grapevine Mountain above Grapevine Canyon; and in a seasonally-moist location near a tributary to Gorman Creek.

#### 4.1.3 Herbaceous Vegetation

### Yerba Mansa – Nuttall's Sunflower – Nevada Goldenrod Alkaline Wet Meadows (Anemopsis californica - Helianthus nuttallii - Solidago spectabilis Herbaceous Alliance)

Yerba Mansa - Nuttall's Sunflower - Nevada Goldenrod Alkaline Wet Meadows are dominated by three native herbaceous perennials: yerba mansa, Nuttall's sunflower, and Nevada goldenrod, also called showy goldenrod. Yerba Mansa - Nuttall's Sunflower - Nevada Goldenrod Alkaline Wet Meadows occur in California in the southern portion of the state, extending from the Mono Lake area south to Little Lake; from the Fresno region south in the Great Central Valley; from Ventura County to San Diego County along Coastal California; and from Death Valley south into San Bernardino County (http://vegetation.cnps.org/alliance/319). It also can be found in other western states, north to Oregon and east to Kansas and south to New Mexico and western Texas, as well as in northwest Mexico. Nuttall's sunflower was not observed within the GKR alignment. Nevada goldenrod was not observed within the GKR alignment, but southern goldenrod (Solidago confinis) was observed. Yerba mansa and southern goldenrod both have a wetland indicator status of obligate (OBL), meaning that they always occur in wetlands (Lichvar et al. 2016). Within the GKR alignment, Yerba Mansa – Nuttall's Sunflower – Nevada Goldenrod Alkaline Wet Meadows is represented by the Anemopsis californica Provisional Association and the Solidago (confinis, spectabilis) Provisional Association. These associations were observed in seeps near the Gorman Substation, where yerba mansa, southern goldenrod, slender sedge, cottonbatting plant, and alkali rye predominated.

#### Salt Grass Flats (Distichlis spicata Herbaceous Alliance)

Salt Grass Flats are dominated by saltgrass, a mat-forming perennial rhizomatous grass in the Grass Family (Poaceae). Habitats dominated by Salt Grass Flats occur along the intermittently-flooded margins of streams, rivers, lakes, ponds, sloughs and adjacent meadows and upland areas that are seasonally dry between 0 and 5,000 feet (0 and 1,500 meters) amsl throughout much of California where suitable habitat and moisture is present, extending across North America and south into South America. Saltgrass has a wetland indicator status of Facultative (FAC), a facultative species that is equally likely to occur in wetlands as in non-wetlands (Lichvar et al. 2016). Within the GKR alignment, Saltgrass Flats are represented by the *Distichlis spicata – Hordeum murinum* Association one general location along Grapevine Creek in the Castac Valley between Fort Tejon State Historic Park and Lebec.

# Baltic and Mexican Rush Marshes (*Juncus arcticus* [var. *balticus, mexicanus*] Herbaceous Alliance)

Baltic and Mexican Rush Marshes are dominated by two closely related perennial species of rush, Baltic rush and Mexican rush; these species are also called wire rush and are in the Rush Family (Juncaceae). Taxonomists differ in their treatment of this widespread group, and we follow the Jepson Manual in this report, but others consider Baltic rush and Mexican rush to be varieties of Arctic rush, as the name of this vegetation type implies (Sawyer et al. 2009, Flora of North America 2000, USDA 2019). Wetland habitats dominated by Baltic and Mexican Rush Marshes occur along streams, rivers, lakes, ponds, sloughs and adjacent meadows and upland areas that are seasonally dry between sea level and 7,200 feet (2,200 meters) amsl throughout much of California where suitable habitat and moisture is present, extending across North America and into Eurasia. Baltic and Mexican rush have a wetland indicator status of FACW, meaning that they usually occur in wetlands (67-99 percent of the time), but are occasionally found in non-wetlands (Lichvar et al. 2016). Within the GKR alignment, Baltic and Mexican Rush Marshes are represented by the *Juncus arcticus* var. *balticus* Association. The *Juncus arcticus* var. *balticus* Association was observed in moist soils on either side of Chanac Creek in the Cummings Valley just east of the Horse Thief Country Club in Stallion Springs and in seasonally inundated soils between Fort Tejon State Historic Park and Castac Lake in Castac Valley.

# Ashy Ryegrass - Creeping Ryegrass Turfs (*Leymus cinereus – Leymus triticoides* Herbaceous Alliance)

Ashy Ryegrass – Creeping Ryegrass Turfs is dominated by ashy ryegrass, also known as Great Basin wild rye (*Leymus cinereus*), a tufted perennial grass in the Grass Family (Poaceae) that is also known as *Elymus cinereus*; and creeping ryegrass, also called alkali-rye, a rhizomatous perennial grass in the Grass Family (Poaceae) that is also classified as *Elymus triticoides*. Only creeping ryegrass was observed in this alliance within the GKR alignment. Herbaceous vegetation dominated by ashy ryegrass and creeping ryegrass occurs in a variety of mesic and wet habitats including playas, intermittent washes, valley bottoms and on the margins of marshes, floodplains, drainages below 9,800 feet (3,000 meters) amsl throughout much of California. Creeping ryegrass also extends north to British Columbia and east to Texas in appropriate habitats. Ashy ryegrass and creeping ryegrass have a wetland indicator status of FAC, a facultative species that is equally likely to occur in wetlands as in non-wetlands (Lichvar et al. 2016). One association of Ashy Ryegrass - Creeping Ryegrass Turfs occurs within the GKR alignment, the Leymus triticoides – Bromus spp. – Avena spp. Association. The Leymus triticoides – Bromus spp. – Avena spp. Association. The Leymus triticoides – Bromus spp. – Avena spp. Association and the other in moist soils to the west-northwest of Castac Lake.

### Common Monkey Flower Seeps (Mimulus [guttatus] Herbaceous Alliance)

Common Monkey Flower Seeps are dominated by common monkeyflower, a rhizomatous herbaceous perennial in the Lopseed Family (Phrymaceae) that is now classified as *Erythranthe guttata*. Common monkeyflower occurs in many parts of California below 8,200 feet (2,500 meters) amsl, often at the margins of saturated, vernally moist streams, seeps, and meadows. Outside of California, common monkeyflower occurs in all states west of the Rocky Mountains, as well as isolated locations to the east. Common monkeyflower has a wetland indicator status of OBL, meaning that it always occurs in wetlands

(Lichvar et al. 2016). Common Monkey Flower Seeps are represented by the *Mimulus guttatus* Association within the GKR alignment in two nearby locations in a tributary to Gorman Creek near the Gorman Substation.

#### American Bulrush Marsh (Schoenoplectus americanus Herbaceous Alliance)

American Bulrush Marsh is dominated by American bulrush, a perennial rhizomatous herb in the Sedge Family (Cyperaceae); marsh vegetation dominated by American bulrush occurs at the edges of streams, ponds, and lakes and within sloughs, swamps, marshes (fresh and brackish), and man-made ditches below 7,200 feet (2,200 meters) above amsl. American bulrush occurs in the Great Central Valley and in wetlands and marshes across California, as well as throughout much of the United States, British Columbia, Nova Scotia, south through Mexico into South America. American bulrush has a wetland indicator status of OBL, meaning that it always occurs in wetlands (Lichvar et al. 2016). American Bulrush Marsh is represented by the *Schoenoplectus americanus / Lepidium latifolium* Association in one location within the GKR alignment adjacent to Goodding's Willow - Red Willow Riparian Woodlands to the northwest of a retention basin associated with Grapevine Creek north of Fort Tejon State Historic Park.

### Perennial Pepperweed Patches (Lepidium latifolium Herbaceous Semi-Natural Alliance)

Perennial Pepperweed Patches are dominated by perennial pepperweed, a highly invasive herbaceous perennial in the Mustard Family (Brassicaceae). Herbaceous vegetation dominated by perennial pepper weed occur primarily in riparian corridors and marshes that are seasonally flooded occurring below 6,250 feet (1,900 meters) amsl throughout California, with the exception of most of the Mojave and Sonoran Deserts. Perennial pepperweed has a wetland indicator status of FACW (Lichvar et al. 2016). Within the GKR alignment, Perennial Pepperweed Patches are represented by the *Lepidium latifolium* Semi-Natural Association and was observed in Grapevine Canyon in several places and west of Castac Lake.

### 4.1.4 Upland Communities

Nineteen vegetation alliances are dominated by upland species. These vegetation types can be found on mountain slopes, alluvial fans, and washes, as well as upland areas in valleys and basins.

## 4.2 Woodland and Forest Vegetation

### California Buckeye Groves (Aesculus californica Woodland Alliance)

California Buckeye Groves are dominated by California buckeye, also called California horse-chestnut, a large drought-deciduous tree in the Soapberry Family (Sapindaceae); woodlands dominated by California buckeye occur primarily on well-drained slopes and in canyons and drainages below 5,600 feet (1,700 meters) amsl (above mean sea level). Similar to the distribution of blue oak, California buckeye occurs in a band surrounding the Great Central Valley from Siskiyou County south to Los Angeles County, and also occurs coastal mountain ranges, including the Coast Ranges, Sierra Nevada, Tehachapi Mountains, and isolated locations in the Transverse Ranges.

# Canyon Live Oak Forest and Woodland (*Quercus chrysolepis* Forest and Woodland Alliance)

Canyon Live Oak Forest and Woodland is dominated by canyon live oak, an evergreen tree with distinctive golden hairs on the underside of the leaves and on the acorn cap in the Beech Family (Fagaceae); it is also called goldcup oak. Forests dominated by canyon live oak occur primarily in rocky, infertile soils on upland slopes, as well as near streams and in canyon bottoms at elevations ranging from 1,500 to 6,600 feet (450 – 2,000 meter) amsl throughout the California coast ranges and Sierra Nevada.

### Blue Oak Woodland and Forest (Quercus douglasii Woodland and Forest Alliance)

Blue Oak Woodland and Forest is dominated by blue oak, a tall winter-deciduous tree in the Beech Family (Fagaceae); woodlands dominated by blue oak occur primarily on rock outcrops, mountain foothills, and sometimes on valley bottoms from 100 to 3,000 feet (30 – 1,900 meters) amsl in the inner Coast Ranges and western slopes of the Sierra Nevada, as well as in some locations in the Klamath Mountains, Cascade Range, and Transverse Ranges. Its occurrence in a near-continuous band on foothills surrounding the Great Valley has led to calling blue oak a "foothill woodland" indicator species.

### Valley Oak Woodland and Forest (Quercus lobata Woodland and Forest Alliance)

Valley Oak Woodland is dominated by valley oak, an evergreen tree in the Beech Family (Fagaceae). Valley oak occurs in woodlands and savannas in relatively deep soils in moist valley bottoms and on slopes up to 6,000 feet (1,830 meters). Historically, valley oaks were widespread in the Great Central Valley, extending into the Coast Ranges, Sierra Nevada, and Transverse Ranges as well.

# Mixed Oak Forest and Woodland (*Quercus* [*agrifolia*, *douglasii*, *garryana*, *kelloggii*, *lobata*, *wislizeni*] Forest and Woodland Alliance)

Within the GKR alignment, there are four oak-dominated alliances, three of which are dominated primarily by one species of oak: Canyon Live Oak Forest, Blue Oak Woodland, and Valley Oak Woodland. All three species, along with California buckeye, form a mixed woodland on the north-facing slopes of the San Emigdeo Range north of Fort Tejon State Historic Park above 3,000 feet (914 meters) amsl. Associated species consist of scattered shrubs and as well as grass and forb species, especially ripgut brome and soft chess (*Bromus hordeaceus*). This association within the GKR alignment Mixed Oak Forest is classified as the mixed oak – *Aesculus californica* / grass Association.

### 4.2.1 Shrubland Vegetation

#### Scalebroom Scrub (Lepidospartum squamatum Shrubland Alliance)

Scalebroom Scrub is dominated by scalebroom, a largely leafless shrub in the Sunflower Family (Asteraceae). Shrublands dominated by scale-broom occur primarily on intermittently flooded, low-gradient alluvial deposits along streams, washes, and fans from 165 to 5,000 feet (50 - 1,500 meters) amsl in many arid and often rocky washes extending from the inner Coast Ranges in Alameda County, south through the Coast Ranges of central California, the Transverse and Peninsular Ranges, the

southern half of the Great Central Valley, the southern Sierra Nevada, the Mojave Desert, Sonoran Desert, and isolated additional locations; it also occurs in Baja California.

#### Cheesebush - Sweetbush Scrub (Ambrosia salsola – Bebbia juncea Shrubland Alliance)

Cheesebush - Sweetbush Scrub is dominated by cheesebush and sweetbush, shrubs in the Sunflower Family (Asteraceae). Shrublands dominated by cheesebush and sweetbush occur primarily in valleys, flats, arroyos, intermittent channels, and washes to 5,200 feet (1,600 meters) amsl. Cheesebush - Sweetbush Scrub is especially widespread in the Mojave and Sonoran Deserts and adjacent mountain ranges. It also occurs in the washes surrounding the southern end of the Great Central Valley, draining the interior Coast Ranges from the Carrizo Plain and Temblor Range south to the north-facing washes of the San Emigdeo Mountains; it also occurs in the southwestern Great Basin Desert.

## Wedge Leaf Ceanothus Chaparral, Buck Brush Chaparral (*Ceanothus cuneatus* Shrubland Alliance)

Wedge-leaf Ceanothus/Buckbrush Chaparral is dominated by wedge-leaved ceanothus, also called buckbrush, a tall late-winter to spring-blooming evergreen erect shrub in the Buckthorn Family (Rhamnaceae). Shrublands dominated by wedge-leaved ceanothus occur primarily along ridges and upper slopes from 50 to 7,000 feet (15 - 2,133 meters) amsl along the entire California coast, the Coast Ranges, the Southern Cascades, and the Klamath Mountains north into Oregon to the Washington border.

# Acton's and Virgin River Brittle Brush – Net-veined Goldeneye Scrub (*Encelia* [*actonii, virginensis*] - *Viguiera reticulata* Shrubland Alliance)

Acton's and Virgin River Brittle Brush - Net-veined Goldeneye Scrub is dominated by Acton's and Virgin River brittle bush, two species of drought-deciduous shrubs in the Sunflower Family (Asteraceae) and by net-veined goldeneye, a shrub in the Sunflower Family (Asteraceae) also classified as *Bahiopsis reticulata* (Baldwin et al. 2009). Acton's encelia has a broad distribution on rocky slopes in the southern and eastern Sierra Nevada, in the Transverse and Peninsular Ranges of southern California, and in desert mountain ranges from 980 to 6,200 feet (300 – 1,900 meters) amsl. Virgin River encelia occurs primarily in the eastern Mojave Desert through desert mountains to southwest Utah, southwestern New Mexico, and Baja California. Net-veined goldeneye does not occur in the Project area; it occurs in Inyo and northern San Bernardino Counties into western Nevada. Only the Acton's encelia Association of this alliance occurred in the Project area.

# California Joint-fir - Longleaf Joint-fir Scrub (*Ephedra californica – Ephedra trifurca* Shrubland Alliance)

California Joint-fir - Longleaf Joint-fir Scrub is dominated by California joint-fir and/or longleaf joint-fir, dioecious shrubs in the Ephedra Family (Ephedraceae); species of *Ephedra* in western North America are also known as Mormon-tea. Shrublands dominated by California joint-fir and longleaf joint-fir occur primarily on intermittently flooded arroyos, washes, and adjacent to alluvial fans or residual dunes and xeric fine-grained sedimentary substrates from 650 to 4,000 feet (200 to 1,200 meters) amsl in the

southern end of the San Joaquin Valley; the inner Coast, Transverse, and Peninsular Ranges of central and southern California; the Mojave and Sonoran Deserts; and a few outlying locations.

## Narrowleaf Goldenbush – Bladderpod Scrub (*Ericameria linearifolia – Cleome isomeris* Shrubland Alliance)

Narrowleaf Goldenbush – Bladderpod Scrub is dominated by two rounded shrubs, narrowleaf goldenbush in the Sunflower Family (Asteraceae) and bladderpod in the Spiderflower Family (Cleomaceae). Shrublands dominated by narrowleaf goldenbush and bladderpod occur primarily on dry slopes and ridges with shallow, often well-drained soils between 330 and 6,560 feet (100 and 2,000 meters) amsl in the inner Coast Ranges, southern Sierra Nevada, Tehachapi Mountains, and the upper Mojave Desert.

### Rubber Rabbitbrush Scrub (Ericameria nauseosa Shrubland Alliance)

Rubber Rabbitbrush Scrub is dominated by rubber rabbitbrush, a shrub in the Sunflower Family (Asteraceae). Shrublands dominated by rubber rabbitbrush occur throughout the Intermountain West and arid Great Plains, from California north into Canada, east to North Dakota, and south into northwest Mexico, with 21 name varieties, often associated with mountainous areas up to 10,498 feet (3,200 meters) amsl.

### California Buckwheat Scrub (Eriogonum fasciculatum Shrubland Alliance)

California Buckwheat Scrub is dominated by California buckwheat, a shrub in the Buckwheat Family (Polygonaceae). California buckwheat has a widespread distribution in the southern half of California, with several named subspecies. California buckwheat occurs in a variety of habitats, including creosote bush scrub, sagebrush scrub, pinyon juniper woodland, coastal sage scrub, and is common on well-drained slopes and in ephemeral drainages or more permanent drainages at the rocky upland margins below 8,200 feet (2,500 meters) amsl throughout the Coast Ranges extending from Trinity County south to Mexico; the Sierra Nevada and desert mountain ranges; the Transverse and Peninsular Ranges; the Sonoran, Mojave, and southern Great Basin Deserts; and arid or semi-arid locations in valleys throughout this region. In locations where California buckwheat is a dominant plant (> 50% relative cover, or important component of a shrub mix), the vegetation may be called California Buckwheat Scrub.

#### Tucker Oak Chaparral (Quercus john-tuckeri Shrubland Alliance)

Tucker Oak Chaparral is dominated by Tucker oak, a shrub in the Oak Family (Fagaceae). Shrublands dominated by Tucker oak occur primarily on slopes and ridges at elevations between 3,000 and 6,800 feet (900 – 2,090 meters) amsl in the Coast and Transverse Ranges of central and southern California, including the Tehachapi Mountains and San Emigdio and Temblor Ranges.

#### Tamarisk Thickets (Tamarix spp. Semi-Natural Stands)

Tamarisk Thickets are dominated by tamarisk, a genus that includes highly invasive shrubs and trees in the Tamarisk Family (Tamaricaceae). Vegetation dominated by tamarisk occur primarily on arroyo and lake margins, ditches, washes, and rivers from 240 to 2,600 feet (75 – 800 meters) amsl throughout California.

### 4.2.2 Herbaceous Vegetation

# Needle Grass – Melic Grass Grassland (*Nassella* spp. – *Melica* spp. Herbaceous Alliance)

Needle Grass – Melic Grass Grassland is dominated by two genera of tufted perennial native grasses, needlegrass in the genus *Nassella*, now called *Stipa*, and melic grass in the genus *Melica*. Nodding needlegrass (*Stipa* [*Nassella*] *cernua*) forms an association in Needle Grass – Melic Grass Grassland within the GKR alignment; no grasslands are dominated by melic grass. Native grasslands dominated by needlegrass occur in upland locations in many parts of cismontane California below 5,600 feet (1,700 meters), especially in deep soils with low woody cover; nodding needlegrass is restricted to California and Baja California. Nodding needlegrass is a tufted perennial bunchgrass with elongate arched inflorescences up to 3 feet (0.9 meters) in length. Although individual spikelets are one-flowered, there are many spikelets per inflorescence. The spindle-shaped spikelets are topped with a twice-bent awn approximately 2.5 to 4 inches (5 to 10 centimeters) in length that is wavy at the tip..

# Wild Oats and Annual Brome Grasslands (*Avena* spp. – *Bromus* spp. Semi-Natural Herbaceous Alliance)

Wild Oats and Annual Brome Grasslands are dominated by annual species of oats and bromes in the Grass Family (Poaceae). Wild Oats and Annual Brome Grasslands occur in full sun below 7,200 feet (1,200 meters) amsl in a variety of topographic conditions in foothills, rangelands, disturbed areas and opening in woodlands and savannas, generally where native vegetation has been previously removed and replaced with non-native grasses.

# Red Brome or Mediterranean Grass Grasslands (*Bromus rubens – Schismus* [*arabicus, barbatus*] Semi-Natural Herbaceous Alliance)

Red Brome or Mediterranean Grass Grasslands are dominated by red brome and Mediterranean grass in the Grass Family (Poaceae); grasslands dominated by red brome and Mediterranean grass are widespread below 7,000 feet (2,100 meters) amsl in arid areas of California, with distribution extending east to Texas and south into Mexico. Both red brome and Mediterranean grass are annuals that often exhibit high cover in open, disturbed areas, along with a range of other native and non-native herbaceous species. They can quickly outcompete native annuals and short-lived perennials throughout their range.

# Cheatgrass – Medusahead Grassland (*Bromus tectorum – Taeniatherum caput-medusae* Semi-Natural Herbaceous Alliance)

Cheatgrass - Medusahead Grassland in the Proposed Project area is dominated by cheatgrass, an annual grass in the Grass Family (Poaceae). Grassland vegetation dominated by cheatgrass occurs throughout the Intermountain West, including northeastern California, portions of the Owens Valley, and desert areas, mostly below 7,200 feet (2,200 meters) amsl. No medusahead grass was observed within the GKR alignment.

## 5 REGULATORY BACKGROUND

## 5.1 Executive Order 11990 (May 24, 1977) Protection of Wetlands

This federal Executive Order establishes a national policy "to avoid the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternative."

## 5.2 United States Army Corps of Engineers

Pursuant to Section 404 of the CWA, the USACE regulates the discharge of dredged and/or fill material into Waters of the United States (Waters of the U.S.). The term "Waters of the United States" is defined in 33 Code of Federal Regulations (CFR) Part 328 and includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all impoundments of waters mentioned above, (4) all tributaries to waters mentioned above, (5) the territorial seas, and (6) all wetlands adjacent to waters mentioned above. Wetlands are defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions."

The USACE will assert jurisdiction over traditional navigable waters (TNW), all wetlands adjacent to TNW, non-navigable tributaries of TNW that are relatively permanent waters (RPW) (tributaries that typically flow year-round or have continuous flow at least seasonally), wetlands that directly abut such tributaries, and non-RPWs if the water body is determined to have a significant nexus with a TNW.

## 5.3 Regional Water Quality Control Board

Dredge and fill activities in Waters of the U.S. that trigger coverage under Section 404 of the CWA must also receive water quality certification under Section 401 of the CWA. The State Water Resources Control Board (SWRCB), through its RWQCBs, has jurisdiction over Section 401 water quality certification in California. Under CWA Section 401, the RWQCB must certify that a permit issued under CWA Section 404 meets the water quality objectives of the State of California.

The Porter-Cologne Water Quality Control Act (Porter-Cologne), Division 7 of the California Water Code, establishes the responsibilities and authorities of the nine RWQCBs and the SWRCB.

This act establishes that the "Waters of the State" shall be protected for use and enjoyment by the people of the State and that activities and factors that may affect the quality of the Waters of the State shall be regulated to attain the highest water quality. "Waters of the State" are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. Porter-Cologne also names the RWQCBs to formulate and adopt water quality control plans for all areas within the region.

On April 2, 2019, the California State Water Resources Control Board adopted the "State Wetland Definition and Procedures for Discharges for Dredged or Fill Material to Waters of the State." The rule clarifies what is considered a wetland for the entire state and establishes permitting procedures for discharged materials from or to areas considered a wetland. The rule also provides consistency in the way the State Water Board and nine regional water boards regulate activities to protect wetlands and

other waterways, such as rivers and streams, and bays and estuaries. The rule became effective in May 2020.

## 5.4 California Department of Fish and Wildlife

Pursuant to Section 1600-1617 of the Fish and Game Code, CDFW may require a Lake or Streambed Alteration Agreement prior to any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of a river, stream, or lake, or use material from a streambed.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of a lake includes natural lakes or man-made reservoirs. In addition to the bed and banks of a stream, CDFW authority includes riparian or wetland vegetation associated with a stream.

## 6 **METHODOLOGY**

A jurisdictional delineation of Waters of the U.S., including wetlands, and waters of the State was conducted for the Project area from March 13 to March 31, 2017 and between April 15 and 16, 2019. The field delineations were conducted by qualified biologists, consisting of one team of two. For the purposes of the delineation, the Project area consisted of a survey buffer extending 75 feet from either side of the alignment centerline and a circle with a 100-foot radius around each existing tower.

The delineation teams walked the Project alignment and collected data on all state and federal jurisdictional features. At each drainage feature, average channel width and depth were estimated in the field in accordance with the descriptions below and features such as substrate type and topography were recorded. Once the outer jurisdictional limits were identified in the field, the boundary of the feature was walked with a Trimble GeoXH Geoexplorer 2008 handheld GPS unit set to collect positional data. Photographs were taken to document site conditions. When field data collection was complete, jurisdictional boundaries were downloaded from the Trimble GPS unit and converted into a GIS GeoDatabase using ArcGIS software. Properties such as length, width, and acreage of the drainage were calculated through ArcGIS.

Paleo channels (features that may have once conveyed water but lacking recent indications of water flow) and remnants of inactive stream channels that do not exhibit evidence of modern water flow were determined to be non-jurisdictional due to the lack of bed and bank or indicators of ordinary high water mark (OHWM).

### 6.1 Delineation of Wetland Water of the U.S.

The wetland field delineation methodology followed the routine onsite determination method described in the Corps of Engineers Wetland Delineation Manual (USACE 1987), as well as regional approaches identified in the Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual Arid West Region (Version 2.0) (USACE 2010). Some wetlands were inaccessible due to flooded conditions

and hydric soils were assumed for features that were inundated during the time of the survey. Field data forms were completed and are included in Attachment D.

# 6.2 Delineation of Non-Wetland Waters of the U.S. (USACE and RWQCB Jurisdiction)

The boundaries of non-tidal, non-wetland water features were delineated at the OHWM as defined in 33 CFR 328.3 and in accordance with A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual (USACE 2008).

Field data forms for determining the OHWM were completed for representative drainages with multiple low flow channels and not at all of the smaller single-channel drainage features. Features with an OHWM were considered jurisdictional non-wetland waters of the U.S. pursuant to the CWA, regulated by the USACE, unless the features were isolated and not within USACE jurisdiction. Field data forms were completed for representative non-wetland features and are included in Attachment D. USACE jurisdictional waters mapping is shown in Attachment E and CDFW jurisdictional waters mapping is provided in Attachment F. A photographic log is presented in Attachment G.

### 6.3 Delineation of CDFW Jurisdiction

The boundaries of waters subject to regulation by the CDFW were delineated using agency-issued guidance under the California Fish and Game Code, related CDFW materials, and standard practices by CDFW personnel and wetland delineation professionals. CDFW jurisdiction was delineated by measuring the outer boundaries of the greater of either the top of bank measurement (bankfull width) or the extent of associated riparian or wetland vegetation.

## 7 RESULTS

### 7.1 Wetlands

A total of 43.90 acres (1,912,284 square feet) of potentially jurisdictional wetlands were delineated within the Project area. Delineated wetlands met the three mandatory criteria (hydric soils, hydrology, and dominance of hydrophytic vegetation). If a dominance of hydrophytic vegetation and hydrology were present, hydric soils were assumed to be present. Details on the types of wetland vegetation observed within the alignment and corresponding alliances are provided in Section 4.1. Mapping for the jurisdictional wetlands is provided in Attachment E. Representative photos of the drainages within the Project area are presented in Attachment G. A summary of jurisdiction, area, and linear feet by individual feature is provided as Attachment H.

### 7.2 Non-wetlands

Within the Project survey area, approximately 6.8 acres and approximately 296,208 square feet of potentially jurisdictional non-wetland waters subject to the jurisdiction of the USACE and RWQCB were identified. The drainages totaled 23,407 linear feet.

Mapping for the USACE and RWQCB jurisdictional drainages are provided in Attachment E, and mapping for CDFW jurisdiction is provided in Attachment F. Representative photos of the drainages within the Project area are presented in Attachment G. A summary of jurisdiction, area, and linear feet by individual feature is provided as Attachment H.

## 7.3 Clean Water Act Sections 404 and 401

The Project wetlands meet the criteria for jurisdictional waters (hydrology, vegetation, and soils) and appear to have hydrological connections to traditional navigable waters such as the Kern River. Therefore, the wetland waters in the Project area are considered jurisdictional under the USACE and RWQCB pursuant to the CWA Sections 404 and 401.

The drainages are unnamed ephemeral non-Relatively Permanent Waters (RPWs). Ephemeral drainages within the study area exhibit channel morphology and OHWM indicators such as bank, scour, and sediment deposits with only riverine hydrological indicators. The majority of the drainages traverse upland Mojave Desert habitats and exhibit a lack of vegetation or occurrence of upland desert vegetation within the channels. While reviewing the study area prior to the field survey using existing mapping and aerial photography, many potential features seemed to be present or seem to extend farther than currently mapped; however, during the field surveys, these features were evaluated closely (when present) and do not meet the standards for jurisdiction and/or do end abruptly.

The USACE has not made previous jurisdictional determinations on non-wetland waters in the Project area. Project drainages have been defined as non-wetland waters under the jurisdiction of USACE and RWQCB pursuant to the CWA (Attachment G). A summary of jurisdiction, area, and linear feet by individual feature is provided as Attachment H.

All conclusions regarding potential jurisdiction in this report reflect the opinions of the professionals conducting the field surveys and preparing the reports. Only the state and federal agencies have the authority to formally assert jurisdiction and to determine the limits of their jurisdiction.

## 7.4 California Fish and Game Code 1602

All drainages within the Project area with a channel defined by bed and bank, are considered streambeds potentially subject to CDFW per Section 1602 of the California Fish and Game Code. There are 18.1 acres (788,436 square feet) and 23,407 linear feet of CDFW jurisdictional streams within the GKR project area. The drainages within the study area are summarized in the tables in Attachment H. Mapping for CDFW jurisdiction is provided in Attachment F.

## **8 CONCLUSION**

Within the Project alignment, there are approximately 43.9 acres (1,912,284 square feet) of wetlands and 6.8 acres (296,208 square feet) of other waters under CWA jurisdiction 404 and 401. Approximately 18.1 acres (788,436 square feet) of features under CDFW 1602 jurisdiction were identified within the Project alignment. Table 4 summarizes the area of jurisdiction within the Project alignment. Implementation of the Project may require permits and authorizations from USACE, RWQCB, or CDFW depending on the potential for temporary or permanent impacts on jurisdictional features.

### JD Report – Gorman-Kern River 66 kV Subtransmission Line Project

Jurisdiction	Acres	Square Feet	Linear Feet
CWA 404/401 Wetlands	43.9	1,912,284	
CWA 404/401 Other Waters	6.8	296,208	23,407
CDFW 1602	18.1	788,436	23,407

Table 4. CWA 404 and 401 and CDFW 1602 Results

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## **ATTACHMENT A**

**Project Location Map** 




# **ATTACHMENT B**

Hydrology Map





# **ATTACHMENT C**

Soils Map























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#### Soil Units



Rosamond variant sandy loam, 5 to 15 percent slopes
Tunis sandy loam, 5 to 30 percent slopes
Tunis-Walong complex, 50 to 75 percent slopes
Walong sandy loam, 15 to 30 percent slopes
Walong sandy loam, 30 to 50 percent slopes
Walong-Arujo sandy loams, 50 to 75 percent slopes
Water
Whitewolf loamy sand, 2 to 5 percent slopes
Xerorthents, loamy, very steep
Xerorthents-Rock outcrop complex, very steep





































# **ATTACHMENT D**

**Field Data Forms** 



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WETLAND DETERMINATION D	ATA FORM – Arid West Region
Project/Site: TLRP (Kern River Line) city/co	unty: Lebec/Kern sampling Date: 4/5/14
Applicant/Owner:	State: CA Sampling Point:
Investigator(s): MC + PL Section	n, Township, Range:
Landform (hillslope, terrace, etc.): bose of hill Local r Subregion (LRR): KYIZWES Lat: 34.8	elief (concave, convex, none): <u>(())(())</u> Slope (%): <u>()</u> 76339 Long: -(18.89.7624 Datum:
soil Map Unit Name: "Area NOT SUNVILL QUESS de	nved" NWI classification: PEM/K +
Are climatic / hydrologic conditions on the site typical for this time of year? Ye	s X No (If no, explain in Remarks.) PFOC
Are Vegetation , Soil , or Hydrology significantly disturbe	ed? NO Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problemat	c? NO (If needed, explain any answers in Remarks.)
SLIMMARY OF FINDINGS - Attach site man showing same	aling point locations, transacts, important features, ato
Sommer of The store and showing same	sing point locations, transects, important leatures, etc.
Hydrophytic Vegetation Present?       Yes       No         Hydric Soil Present?       Yes       No         Wetland Hydrology Present?       Yes       No	Is the Sampled Area within a Wetland? Yes <u>V</u> No
Assumed nydric sails present, large	saturated area w/stream running thatgh
Dominate Vegitation Fac species, san	dy loam, manipulated wetland
VEGETATION – Use scientific names of plants.	
Tree Stratum (Plot size:       Absolute       Domining         1.       Salix (asiolepis       10       a         2.       Salix (ucida $3.5$ $10$ a         3.	IndicatorDominance Test worksheet:StatusNumber of Dominant SpeciesDThat Are OBL, FACW, or FAC:IATotal Number of DominantSpecies Across All Strata:ICoverPercent of Dominant SpeciesThat Are OBL, FACW, or FAC:StatusPercent of Dominant SpeciesThat Are OBL, FACW, or FAC:StatusOBL speciesSpeciesSpeciesFACW speciesSpeciesFACW speciesSpecies
$\frac{Woody Vine Stratum}{1.}$ (Plot size:)	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)     I Cover     Indicators of hydric soil and wetland hydrology must     be present, unless disturbed or problematic.
# Cover of Biotic Crust	Cover Hydrophytic Vegetation Present? Yes <u>No</u>
Dominate vegitation facs., Typha not up, no Willows in middel of feature along sta	Hable to ID -eam

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# 00/

SOIL		Sampling Point:
Profile Description: (Describe to the depth needed to	document the indicator or confirm f	the absence of indicators.)
Depth <u>Matrix</u>	Redox Features	
<u>(inches)</u> Color (moist) % Color (mo	hist) <u>% Type<sup>1</sup> Loc<sup>2</sup></u>	Texture <u>Remarks</u>
<u></u>		
·		
Hydric Soil Indicators: (Applicable to all LRBs, uples	s otherwise noted )	Indicators for Problematic Hydric Soils <sup>3</sup>
Histosol (A1)	v Redox (S5)	1 cm Muck (A9) /I BB C)
Histic Enjoedon (A2)	ped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	ny Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loan	ny Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Dep	eted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Red	ox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Dep	eted Dark Surface (F7)	
Thick Dark Surface (A12) Red	Dx Depressions (F8)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Verr	al Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Ma(nx (54)		unless disturbed of problematic.
Type:		
Donth (inches):		Hydria Soil Present? Yes No
Depth (inclies).		
CLO LUDGO LUDGU) PACKY (CANDUL	callC	
ciay lense below tocky salley.		there in them & areas
man made water internance cre	lex maybe creating	THIS DETILUTE WHEN
mänipul	ated	
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all th	at apply)	Secondary Indicators (2 or more required)
🔀 Surface Water (A1) Sa	t Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	tic Crust (B12)	Sediment Deposits (B2) (Riverine)
X Saturation (A3)	uatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine)	trogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriverine) Ox	dized Rhizospheres along Living Roots	(C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine) Pre	sence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6) Re	cent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
X Inundation Visible on Aerial Imagery (B7) Thi	n Muck Surface (C7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9) Oth	er (Explain in Remarks)	FAC-Neutral Test (D5)
Field Observations:	~	
Surface Water Present? Yes X No Do	epth (inches):O	
Water Table Present? Yes No Da	pth (inches):	
Saturation Present? Yes 🔽 No De	pth (inches): Wetlan	nd Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well,	aenai photos, previous inspections), if	avaiiadie:
acruipnotos,		
Remarks: Track Lunder Ford Clad / Christian	nationd	
treshward for other shinds	VEICE C	

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### WETLAND DETERMINATION DATA FORM - Arid West Region

.

Project/Site: TLRR (Kern River)	City/County: Fraizer Sampling Date: 4/5/17
Applicant/Owner:	State: Sampling Point:
Investigator(s): MC , PL	Section, Township, Range:
Landform (hillslope, terrace, etc.): <u><u><u>R</u> wex</u></u>	Local relief (concave, convex, none): $COCAVC$ Slope (%): $Q - \frac{15\%}{3}$
Subregion (LRR): AVID WEST Lat: 3	4,874118 Long: -118,892504 Datum:
Soil Map Unit Name: Hawk sandy/gravely (10sest 10	NWI classification: <u>2458</u>
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>X</u> No (If no, explain in Remarks.)
Are Vegetation $\underline{AO}$ , Soil $\underline{AO}$ , or Hydrology $\underline{NO}$ significantly	disturbed? Are "Normal Circumstances" present? Yes 🔨 No
Are Vegetation $\underline{N0}$ , Soil $\underline{N0}$ , or Hydrology $\underline{NO}$ naturally pro-	oblematic? (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 X     No       Hydric Soil Present?     Yes X     No	Is the Sampled Area No

vvetiand Hydrology Pre	sent?	Yes <u>/ No</u>			
Remarks: River	and adja	cent wetle	and/ rigo	wean hab	itat.
Intermittent	and sea	sonally fl	coded a	area ,- '	

### **VEGETATION -- Use scientific names of plants.**

	Absolute Dominant Indica	tor Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover Species? Statu</u>	IS Number of Dominant Species
1		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata: (B)
4	- <u></u>	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size)	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
<u>Saping/Shub Stratum</u> (Plot size)		Prevalence Index worksheet:
۱۰ <u>۰۰</u>		Total % Cover of: Multiply by:
2	<b>_</b> <u></u>	
3		
4		FAC w species X2 =
5		X 3 =
Herb Stratum (Plot size:	= Total Cover	FACU species x 4 =
		UPL species x 5 =
·· <u> </u>		— Column Totals: (A) (B)
3.		Prevalence Index = B/A =
4.		Hydrophytic Vegetation Indicators:
5.		Dominance Test is >50%
6		Prevalence Index is ≤3.0 <sup>1</sup>
7		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
8	- <u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:	= Total Cover	
1		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2		be present, unless disturbed or problematic.
		Hydrophytic
% Bare Ground in Herb Stratum % Cover	r of Biotic Crust	Vegetation Present? Yes No
Remarks:		

002	,
-----	---

SOIL

Sampling Point: \_

	Redox Features	
	Color (moist)%Type <sup>1</sup> Loc 	<u>2 Texture Remarks</u>
Type: C=Concentration, D=Depletion, R Iydric Soil Indicators: (Applicable to a Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)	M=Reduced Matrix, CS=Covered or Coated Sar all LRRs, unless otherwise noted.) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6)	Ind Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Indicators for Problematic Hydric Soils <sup>3</sup> :        1 cm Muck (A9) (LRR C)        2 cm Muck (A10) (LRR B)        Reduced Vertic (F18)        Red Parent Material (TF2)        Other (Explain in Remarks)
Depleted Below Dark Surface (A11)     Thick Dark Surface (A12)     Sandy Mucky Mineral (S1)     Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)     Redox Depressions (F8)     Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):		
Depth (inches):	<u> </u>	Hydric Soil Present? Yes No

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one required; che	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 Livi	ing 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 Tilled So	oils (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 (includes capillary fringe)	Depth (inches): Wetland Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				

### "THE BIG ONE" WSIZE OF HWY >

### WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TLRL (Kern River)	City/County:	bed Kern Sampling Date: 4/5/17
Applicant/Owner:	_ , , <u></u>	State: CA Sampling Point:
Investigator(s): MC, PL	Section, Township, Ra	nge:
Landform (hillslope terrace etc.): www.a.a.w	Local relief (concave, r	(a) = (b) = (b) = (a) = (b)
Subragion (I BB): Dry L. West Lat:	24,855544	Lang: -118, 675125 Datum:
Call Man Unit Manuel ACCESS JEMIER ON SULLY	NOURS	Long Datum Datum Datum
Son Map Unit Name: <u>MCC &amp; ACMACO A (1) Soci</u>		
Are climatic / hydrologic conditions on the site typical for this time of	it year? Yes <u>No</u> No	(If no, explain in Remarks.) ✓
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? () Are "	Normal Circumstances" present? Yes _A No
Are Vegetation, Soil, or Hydrology naturally	problematic? $n()$ (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>X</u> No		Δrea
Hydric Soil Present? Yes X No	within a Wetlan	nd? Yes M No
Wetland Hydrology Present? Yes X No		
Remarks: NO soil info area not mapped	+ per soil surv	ey(WSDA)
adjacent to 5 freeway		
VEGETATION – Use scientific names of plants.		
Absol	ute Dominant Indicator	Dominance Test worksheet:
$\frac{\text{Iree Stratum}}{4} (\text{Plot size:}) \qquad \frac{\% \text{ Co}}{60}$	ver <u>Species?</u> Status	Number of Dominant Species
	yrz apr	
3		Total Number of Dominant
4.		
25 30 5	= Total Cover	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: U)		
		Prevalence Index worksheet:
2		OPL species w1 =
3		
4		FAC species $x_3 =$
···	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)		UPL species x 5 =
1_TYPhasp. 20	S An dal	Column Totals: (A) (B)
2. TAPIETIUM LAHOUM 20	) in up(	
1 3 ·		Prevalence Index = B/A =
4		Dominance Test is >50%
0		Prevalence Index is $\leq 3.0^{1}$
7		Morphological Adaptations <sup>1</sup> (Provide supporting
8	· ·	data in Remarks or on a separate sheet)
<i>70</i> 4	0 = Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		
1	<u> </u>	be present, unless disturbed or problematic.
2		
—	= I otal Cover	Vegetation
% Bare Ground in Herb Stratum % Cover of Biot	ic Crust	Present? Yes No
Remarks:		
10ts of invassive pepperweld		

OIL						Sampling Poin	t:
Profile Description: (Describe	to the dept	n needed to document the	indicator o	or confirm	the absence of ir	ndicators.)	
Depth <u>Matrix</u>		Redox Feature	es				
(inches) <u>Color (moist)</u>	%	Color (moist) %	<u>Type'</u>	_Loc <sup>2</sup>	Texture	Remarks	
· · · · · · · · · · · · · · · · · · ·			<u> </u>		·		
		ii				·	
<u> </u>		· · ·					
		<b></b>					
		<u> </u>					
Type: C=Concentration, D=Der	oletion. RM=F	Reduced Matrix. CS=Covere	d or Coated	d Sand Gr	ains. <sup>2</sup> Location	n: PL=Pore Linina. I	M=Matrix.
lydric Soil Indicators: (Applie	cable to all L	RRs, unless otherwise not	ted.)		Indicators for I	Problematic Hydric	Soils <sup>3</sup> :
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 Minera	al (F1)		Reduced V	ertic (F18)	
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix	(F2)		Red Parent	t Material (TF2)	
Stratified Layers (A5) (LRR	C)	Depleted Matrix (F3)			Other (Exp	lain in Remarks)	
1 cm Muck (A9) (LRR D)		Redox Dark Surface	(F6)			,	
Depleted Below Dark Surfac	ce (A11)	Depleted Dark Surfac	ce (F7)				
Thick Dark Surface (A12)		Redox Depressions (	'F8)		<sup>3</sup> Indicators of hy	drophytic vegetation	n and
Sandy Mucky Mineral (S1)		Vernal Pools (F9)	,		wetland hydr	ology must be prese	nt.
Sandy Gleyed Matrix (S4)					unless distur	bed or problematic.	
Restrictive Layer (if present):							
Туре:		_					
Depth (inches):					Hydric Soil Pres	sent? Yes	_ No
	toto	n ascumanna l	hudr	1 C.D.	115		
SOLL SUMPLES I DI	1 june	in assummed	ngan		112		
YDROLOGY							
Vetland Hydrology Indicators:	:						

Primary Indicators (minimum of one required; cho	eck all that apply)	Secondary Indicators (2 or more required)
X Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
X 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 Livin	ng 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 Tilled Sc	oils (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 <u>}</u> No _	Depth (inches):	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No No	Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspec	tions), if available:
Remarks:	· · · · ·	
Surface water + saturated	Soils	
	3018	

"On the ranch E side of 5+1w WETLAND DETE	N RMINATION	DATA FORM	– Arid West Region
Project/Site:	City/C Section City/C City/C Section Lat: Const Const Const City/C City/C City/C City/C City/C City/C City/C City/C Const City/C Const City/C Const Co	county: <u>Ley</u> on, Township, Ra Il relief (concave, 17427 (res <u>No</u> rbed? Are atic? (If ne	Dec       /kevn       Sampling Date:       4/4/17
Hydrophytic Vegetation Present? Yes X M Hydric Soil Present? ASSUMED Yes X M Wetland Hydrology Present? Yes X M Remarks: WATHING TO TAKE SAMPLES	NO NO +U get	Is the Sampled within a Wetlan Permi	Area nd? Yes No X Z ssion to dig on property
EGETATION – Use scientific names of plar Tree Stratum (Plot size:)	Absolute Dor <u>% Cover</u> Spe	ninant Indicator cies? Status	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:         Total Number of Dominant         Species Across All Strata:
1.	= = Tc	ital Cover	Percent of Dominant Species         That Are OBL, FACW, or FAC:
i) <u>terb Stratum</u> (Plot size:) 1. <u>CAREX praegracilis</u> 2. <u>Juncus sp.</u> 3. <u>CLAPER / trifolium sp.</u> 4. <u>brome sp.</u>		1 Cover <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u> <u>2</u>	FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:
5. <u>rumey sp</u> . 5		f	<ul> <li> Dominance Test is &gt;50%</li> <li> Prevalence Index is ≤3.0<sup>1</sup></li> <li> Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li> Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>

= Total Cover

\$

% Cover of Biotic Crust

% Bare Ground in	h Herb Stratum
Remarks:	
Juncus	not-fla

1. 2.

Woody Vine Stratum (Plot size: \_

À

No\_

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Yes

Hydrophytic

Vegetation

Present?

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)         Depth	SOIL				Sampling Point:
Depth       Matrix       Redox Features         (Inches)       Color (moist)       %       Type!       Loc <sup>1</sup> Texture       Remarks         (Inches)       Color (moist)       %       Color (moist)       %       Type!       Loc <sup>1</sup> Texture       Remarks         (Inches)       Matrix       Color (moist)       %       Type!       Loc <sup>1</sup> Texture       Remarks         (Inches)       Matrix       CS       Covered or Coated Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         "Type:       Color (moist)       Sandy Redox (S5)       Indicators for Problematic Hydric Soils?:         Histic Epideon (A2)       Sandy Redox (S5)       2 cm Muck (A0) (LRR C)         Histic Epideon (A2)       Strapfeed Matrix (S6)       2 cm Muck (A0) (LRR B)         Histic Epideon (A2)       Loamy Mucky Mineral (F1)       Redox Parent Material (TF2)         Hydriggen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Redox Dark Surface (F6)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F7)       Other (Explain in Remarks)       Depleted Balw Surface (F7)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F6)       Other (Explain in Remarks)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Profile Description: (De	escribe to the dep	th needed to document the indicator o	confirm the absence of	indicators.)
(inches)       Color (moist)       %       Type'       Loc'       Texture       Remarks	Depth	Matrix	Redox Features		
*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*:         Histic Epipedon (A2)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Sandy Redox (S5)       2 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Sandy Gleyed Matrix (S6)       2 cm Muck (A9) (LRR C)         Stratified Layers (A5) (LRR C)       Depleted 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 (F7)       Thick Dark Surface (A12)         Stratified Layers (A5) (LRR C)       Depleted Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic,         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       *Indicators of problematic,         Sandy Gleyed Matrix (S4)       unless disturbed or problematic,         Restrictive Layer (if present):       Type:       Hydric Soil Present? Yes /	<u>(inches)</u> Color (m	ioist)%	<u>Color (moist)</u> % Type'	Loc <sup>2</sup> Texture	Remarks
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.       *Location: PL=Pore Lining, M=Matrix.         *Mydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils*:					
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls <sup>2</sup> :         Histosol (A1)					
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soll Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls <sup>2</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Black Histo (A2)       Stripped Matrix (S6)       2 cm Muck (A10) (LRR B)         Black Histo (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (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)       Other (Explain in Remarks)         1 cm Muck (A9) (LRR D)       Redox Dark Surface (F7)       Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8) <sup>3</sup> Indicators of hydrophytic vegetation and wetlan hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       Hydric Soil Present? Yes // No       No         Type:		·			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histosol (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 Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Thick Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (If present):       Type:					
*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)         Histic Dipedon (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 Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       wetland hydrology must be present, unless disturbed or problematic.         Type:					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         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) (LR D)       Redox Dark Surface (F6)       Poleted Below Dark Surface (A11)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:       Unless disturbed or problematic.         Restrictive Layer (if present):       Type:       No         Remarks:       OSSUMED Mydix CSONS / did Act dug PitS       No         YDROLOGY       YDROLOGY       Id Act dug PitS					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histic Epipedon (A2)       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 Suifide (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 Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       wetland hydrology must be present, unless disturbed or problematic.         Type:					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Sandy Redox (S5)       1 cm Muck (A9) (LRR C)         Histic Epipedon (A2)       Stripped Matrix (S6)       2 cm Muck (A9) (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 Dark Surface (F7)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         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 Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       wetland hydrology must be present, unless disturbed or problematic.         Type:					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         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 Dark Surface (F7)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Stripped Matrix (S4)         Sandy Mucky Mineral (S1)       Vernal Pools (F9)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:					• • • • • • • • •
Type:       Concentration, D=Depletion, KM=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 <sup>3</sup> :         Histosol (A1)	<u> </u>		<u> </u>	<u> </u>	
Hydric Soft Huickators:       (Appricable to all LRRs, unless offerwise noted.)       Indicators for Problematic Hydric Solls :	Type: C=Concentration,	D=Depletion, RM=	Reduced Matrix, CS=Covered or Coated	Sand Grains. Locati	on: PL=Pore Lining, M=Matrix.
Histosol (A1)	Hyune Son mulcators:	(Applicable to all	LKKS, unless otherwise noted.)	Indicators to	r Problematic Hydric Solis":
Histic Epipedon (A2)	Histosol (A1)		Sandy Redox (S5)	1 cm Mud	* (A9) (LRR C)
Black Histic (A3)       Loamy Mucky Mineral (F1)       Reduced Vertic (F18)	Histic Epipedon (A2)		Stripped Matrix (S6)	2 cm Muc	* (A10) (LRR B)
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)       3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)	Black Histic (A3)		Loamy Mucky Mineral (F1)	Reduced	Vertic (F18)
Stratified Layers (A5) (LRR C)       Depleted Matrix (F3)       Other (Explain in Remarks)	Hydrogen Sumde (A4	+) (1 == = =)	Loamy Gleyed Matrix (F2)	Red Pare	nt Material (TF2)
T 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)	Stratified Layers (A5)		Depleted Matrix (F3)	Other (Ex	plain in Remarks)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)     Thick Dark Surface (A12) Redox Depressions (F8) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if present): Type: Depth (inches): Remarks: OSSUMED MUDIC SOLIS / dld Act dug PItS  YDROLOGY	1 cm Muck (A9) (LR		Redox Dark Surface (F6)		
	Depieted Below Dark	Surrace (A11)	Depleted Dark Surface (F7)	3	
	Thick Dark Surface (A	412)	Redox Depressions (F8)	Indicators of	hydrophytic vegetation and
	Sandy Mucky Minera	(S1)	Vernal Pools (F9)	wetland hyd	drology must be present,
Type:	Sandy Gleyed Matrix	(S4)		unless dist	urbed or problematic.
Type: Depth (inches): Hydric Soil Present? Yes / No Remarks: OSSUMED MYDIVIC SOILS, did not dig Pits YDROLOGY	Restrictive Layer (if pre-	sent):			
Depth (inches): Hydric Soil Present? Yes / No Remarks: OSSUMED MYDIVLC SOILS, dld nct dlg PITS YDROLOGY	Туре:				_
Remarks: OSSUMED NYDIVIC SOILS, did not dig Pits YDROLOGY	Depth (inches):			Hydric Soil Pr	esent? Yes _/ No
OSSUMED HYDRIVES SOILS, did not dig Pits	Remarks:				
YDROLOGY	accumenting	divicsoi)	Stig Pub ton bib, 2		
YDROLOGY					
YDROLOGY					
YDROLOGY					
	HYDROLOGY				
Wetland Hydrology Indicators	Wetland Hydrology Indi				

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; ch	eck all that apply)	Secondary Indicators (2 or more required)
_X Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
_X 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 Livir	ng 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 Tilled Sc	bils (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 <u>No</u> (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if available:
Remarks: C C C C C C C C C C C C C C C C C C C		
Surface water	present wher ta	VEI

## " Before lake "

WETLAND DETER	RMINATION DATA FORM	– Arid West Region
Project/Site: TLPP (KOM RIVE	City/County: Let	DEC / KOM Sampling Date: 4/16/17
Applicant/Owner:		State:C 🕅 Sampling Point:
Investigator(s):	Section, Township, Ra	nge:
Landform (hillslope, terrace, etc.): Grassland	Local relief (concave,	convex, none): Slope (%):
Subregion (LRR): PSV12 WtSt	_ Lat: <u>34.83476106</u>	Long: 118 . 85438617 Datum:
Soil Map Unit Name: <u>area not survey</u>	(280)	NWI classification: Freshwater emercent
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes No _	X (If no, explain in Remarks.) Wetland
Are Vegetation $\underline{n_0}$ , Soil $\underline{n_0}$ , or Hydrology $\underline{n_0}$ s	significantly disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation $(n0)$ , Soil $(n0)$ , or Hydrology $(n0)$ r	naturally problematic? (If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes N         Hydric Soil Present?       Yes N         Wetland Hydrology Present?       Yes N         Remarks:       NO SWEAQ_WATCH OF SOftworthight	Is the Sampled within a Wetlan TREFEVH	l Area nd? Yes <u>No</u>
VEGETATION – Use scientific names of plan	ts.	
<u>Tree Stratum</u> (Plot size:) 1ンノみ	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:           Number of Dominant Species           That Are OBL, FACW, or FAC:
2 3	- <u> </u>	Total Number of Dominant Species Across All Strata: (B)
4 Sapling/Shrub_Stratum (Plot size:)	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1. N/A		Prevalence Index worksheet:

4		· ·		- • /
<sup>4</sup>	= Total Cover	Percent of Dominant Spe That Are OBL, FACW, or	cies FAC:	(A/B)
1 <u>N/A</u>		Prevalence Index works	heet:	
2		Total % Cover of:	Multiply_by:	
3		OBL species	x1=	
4		FACW species	x 2 =	
5		FAC species	x 3 =	
	= Total Cover	FACU species	x 4 =	
Herb Stratum (Plot size:)		UPL species	x 5 =	
1. ressten flare		Column Totals:	(A)	(B)
2. papper weed		_		
3. Bromus		Prevalence Index =	: B/A =	
4. rush sp.		Hydrophytic Vegetation	Indicators:	
5		Dominance Test is >	50%	
6		Prevalence Index is a	\$3.0 <sup>1</sup>	
7		Morphological Adapta data in Remarks of	ations <sup>1</sup> (Provide supp or on a separate shee	orting et)
0		Problematic Hydroph	ytic Vegetation <sup>1</sup> (Exp	lain)
Woody Vine Stratum (Plot size:)				
1		<sup>1</sup> Indicators of hydric soil a	nd wetland hydrolog	y must
2.		be present, unless disturt	ed or problematic.	
	= Total Cover	Hydrophytic		
% Bare Ground in Herb Stratum % Cover of E	Biotic Crust	Present? Yes	No	
Remarks:			• •	

US SOIL

Sampling Point:

Denth	 Matrix	•	Red	v Featuro	-			
(inches)	Color (moist)	%	Color (moist)	%		Loc <sup>2</sup>	Texture	Remarks
							<u> </u>	
Гуре: С=С	oncentration, D=Depl	etion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand Gr	ains. <sup>2</sup> Location	: PL=Pore Lining, M=Matrix.
y <b>dri</b> c Soil	Indicators: (Applica	ble to all	LRRs, unless othe	rwise note	ed.)		Indicators for P	Problematic Hydric Soils <sup>3</sup> :
_ Histosol	(A1)		Sandy Red	ox (S5)			1 cm Muck	(A9) ( <b>LRR C</b> )
_ Histic E	pipedon (A2)		Stripped M	atrix (S6)			2 cm Muck	(A10) ( <b>LRR B</b> )
_ Black Hi	istic (A3)		Loamy Muc	ky Mineral	(F1)		Reduced Ve	ertic (F18)
_ Hydroge	en Sulfide (A4)		Loamy Gle	yed Matrix	(F2)		Red Parent	Material (TF2)
_ Stratified	d Layers (A5) ( <b>LRR C</b>	i)	Depleted M	latrix (F3)			Other (Explanation)	ain in Remarks)
_ 1 cm Mu	uck (A9) (LRR D)		Redox Dari	k Surface (	F6)			
_ Depleted	d Below Dark Surface	e (A11)	Depleted D	ark Surface	e (F7)			
_ Thick Da	ark Surface (A12)		Redox Dep	ressions (F	-8)		<sup>a</sup> Indicators of hy	drophytic vegetation and
_ Sandy N	Nucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydro	ology must be present,
_ Sandy G	Sleyed Matrix (S4)					-	unless disturb	ed or problematic.
Tuno	Layer (if present):							
Depth (ind	ches):						Hydric Soil Pres	ent? Yes No
emarks:			i				·	
		_	· · · · · · · · · · · · · · · · · · ·					

Wetland Hydrology Indicators:		······
Primary Indicators (minimum of one required; ch	neck 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)
X Sediment Deposits (B2) (Nonriverine)	Oxidized Rhizospheres along Living	ng Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
L Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Sc	pils (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	<u> </u>	
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if available:
Remarks:		

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	WETLAND DETER	MINATI	ON DA	TA FORM	– Arid West Region
P	roject/site: TLRR (Kern River	_)	City/Cou	unty: <u>Leb</u>	ec / Kern Sampling Date: 4/6/17
A	pplicant/Owner:				State: Sampling Point:
In	vestigator(s):		Section	, Township, Ra	ange:
La Si	andform (hillslope, terrace, etc.): <u>(AKC   SNOR</u> ubregion (LRR): <u>AYIA W</u> EST	<u>Lat: 34</u>	Local re ・8ユフ	elief (concave, 167	convex, none): <u>(ACAVC</u> Slope (%): <u>5</u> 1 Long: <u>-118.645691</u> Datum:
S	oil Map Unit Name: <u>St-Puber Sandy ICC</u>	um			NWI classification: Lake Freshwater
A	re climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	; <u>    X                                </u>	(If no, explain in Remarks.)
Ar	re Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology <u>NO</u> sig	gnificantly	disturbe	d? Are	"Normal Circumstances" present? Yes No
A	re Vegetation <u>MC</u> , Soil <u>MO</u> , or Hydrology <u>MO</u> na	aturally pro	blematio	c? (If no	eeded, explain any answers in Remarks.)
S	UMMARY OF FINDINGS – Attach site map s	howing	samp	ling point l	ocations, transects, important features, etc.
	Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No		ı V	s the Sampled vithin a Wetla	d Area nd? Yes <u>No</u>
I	Hydricsals assumed, no sar	nples	s ta	ken, o	all areas whin survey banda
	EGETATION - Use scientific names of plant				
Ē		a.	Domin	ant Indicator	Dominance Test workshopt
-	Tree Stratum (Plot size:)	<u>% Cover</u>	Specie	es? <u>Status</u>	Number of Dominant Species
-	1 _ Popullus Fremantii	20		· up	That Are OBL, FACW, or FAC:
2	2 <u>sa IIX lasiandra</u>	$-\Theta \omega$	- CAR	<u> </u>	Total Number of Dominant
3	$\frac{1}{2} = \frac{2}{2} \frac{1}{2} $				Species Across All Strata: (B)
4	4	<u></u>			Percent of Dominant Species
1	Sapling/Shrub Stratum (Plot size: )	<u> </u>	= Total	Cover	That Are OBL, FACW, or FAC: () (A/B)
	1. Baccharic Sallcifolia	60	M	- FACW	Prevalence Index worksheet:
2	2		0		Total % Cover of: Multiply by:
3	3				OBL species x 1 =
4	4				FACW species x 2 =
5	5				FAC species x 3 =
Ι.	dorh Stratum (Diat aiza)	_()s	= Total	Cover	FACU species x 4 =
		A.A	A 2		UPL species x 5 =
	Polidum Withfiliam	<u>20</u>			Column Totals: (A) (B)
			-242		Prevalence Index = B/A =
2	··		<u>v</u>		Hydrophytic Vegetation Indicators:
ŧ					Dominance Test is >50%
e	)				Prevalence Index is ≤3.0 <sup>1</sup>
7					Morphological Adaptations <sup>1</sup> (Provide supporting
ε	3				data in Remarks or on a separate sheet)
	25	<u></u>	= Total	Cover	Problematic Hydrophytic Vegetation' (Explain)
⊻	Noody Vine Stratum (Plot size:)	_			
	·{				be present, unless disturbed or problematic.
2					
			= Total	Cover	Vegetation
9	6 Bare Ground in Herb Stratum % Cover of	of Biotic Cr	ust		Present? Yes No
F	Remarks:				±
1'					

ado

#### SOIL

Water Marks (B1) (Nonriverine)

Drift Deposits (B3) (Nonriverine)

Surface Soil Cracks (B6)

Water-Stained Leaves (B9)

Field Observations:

Surface Water Present?

(includes capillary fringe)

larer laver

US Army Corps of Engineers

Water Table Present?

Saturation Present?

Remarks:

<u>.X</u>

<u>\_X</u>

X

Sediment Deposits (B2) (Nonriverine)

Inundation Visible on Aerial Imagery (B7)

Yes  $\wedge$ 

Yes

Yes\_

No

No \_\_\_\_

Sampling Point:

\_ Drainage Patterns (B10)

Crayfish Burrows (C8)

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes

Saturation Visible on Aerial Imagery (C9)

No .

Arid West - Version 2.0

Oxidized Rhizospheres along Living Roots (C3) \_\_\_ Dry-Season Water Table (C2)

Depth Matrix	<u> </u>	Redox Features					
(inches) Color (moist)	<u>%</u> <u>Co</u>	or (moist)	<u>% Type<sup>1</sup></u>	Loc <sup>2</sup>	<u>Texture</u>	Remarks	
<u> </u>							
,							
Type: C=Concentration, D=D	epletion, RM=Reduc	ed Matrix, CS=		d Sand Gr	ains. <sup>2</sup> Location: 1	PL=Pore Lining, M=Matrix,	
lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils <sup>3</sup> :			
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 S	Surface (F6)				
_ Depleted Below Dark Surf	ace (A11)	Depleted Dar	k Surface (F7)				
Thick Dark Surface (A12)		Redox Depressions (F8)			<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Mucky Mineral (S1)		Vernal Pools (F9)			wetland hydrology must be present,		
_ Sandy Gleyed Matrix (S4)					unless disturbed	or problematic.	
estrictive Layer (if present)	:						
Туре:							
Depth (inches):					Hydric Soil Present? Yes No		
emarks:			MUSAN	w/ 1	Little bain	Jacies	
no soll pits a	ing rassu	i us viy	ar. 0 30113	$\sim$ ( $\sim$	signer boor		
,							
DROLOGY					·		
Vetland Hydrology Indicator	s:						
rimary Indicators (minimum o	f one required; check	<u>all that apply)</u>			Secondary Inc	licators (2 or more required)	
Surface Water (A1)		Salt Crust (B11)			Water Marks (B1) (Riverine)		
High Water Table (A2) Biotic C		Biotic Crust	(B12)		Sediment Deposits (B2) (Riverine)		
X Contraction (AD)	aturation (A3) Aquatic Invertebrates (B13)			Drift Deposits (B3) (Riverine)			

Hydrogen Sulfide Odor (C1)

Thin Muck Surface (C7)

Depth (inches):

Depth (inches):

No \_\_\_\_\_ Depth (inches):

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

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Area is on the latt's banks, possibly old edge, now water

Recent Iron Reduction in Tilled Soils (C6)



•

•

WETLAND DETERMINATION DATA FORM – Arid West Region
Project/Site: KOM/TLP-P City/County: KOM/Lebec Sampling Date: 4/5/17
Applicant/Owner: State: CR Sampling Point:
Investigator(s): Paulette LEUbet Section, Township, Range:
Landform (hillslope, terrace, etc.): Me adad Local relief (concave, convex, none): Concave Slope (%):
Subregion (LRR): ATLO West Lat: 34.259405 Long: -118.27643 Datum:
Soil Map Unit Name: <u>Area not surveyed</u> NWI classification: <u>PEMICX</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed?
Are Vegetation, Soil, or Hydrology naturally problematic? $N_{0}$ (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 X       No         Hydric Soil Present?       ASSUMEYes       No         Wetland Hydrology Present?       Yes X       No
Remarks:
prestimeter site get a bet the
* manipulated/excave co
VEGETATION – Use scientific names of plants.

<u>_</u>	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1. ODULIUS Frenchti	US URS Fail	That Are OBL, FACW, or FAC:
2		
2		Total Number of Dominant 3 (D)
		Species Across All Strata: (B)
4		Percent of Dominant Species
	-40 = Total Cover	That Are OBL, FACW, or FAC:(UOO(A/B)
		Buryalawaa Indey waakabaati
1		Prevalence index worksneet:
2		Total % Cover of:Multiply by:
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)		UPI species x 5 =
1. IFY Dha SP.	50 yes as	
2 Lepidium latifallium	20 Jes Fill	
		Prevalence Index = B/A =
· · · · · · · · · · · · · · · · · · ·		Hydronhytic Vegetation Indicators:
4		
5		
6		Prevalence index is \$3.0
7		Morphological Adaptations' (Provide supporting data in Romarks or on a senarate sheet)
8		Distributes (a literature of a ) (a statice 1 (Fuelsie)
	= Total Cover	
Woody Vine Stratum (Plot size:)		
1		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2		be present, unless disturbed or problematic.
	= Total Cover	Hydrophytic
		Vegetation
% Bare Ground in Herb Stratum % Cove	er of Biotic Crust	Present? Yes X No
Remarks:		
Ints FNON NATIVE DEDIDET WEE	4	
	in the clas	last sand hand
Typha not identiation	TU SPECIES W	Juri vela vera
1		

US Army Corps of Engineers

#### SOIL

Sampling Point:

Profile Desc	ription: (Describe 1	o the depth	needed to docun	ient the i	ndicator	or confirm	the absenc	e of indicators.)	
Depth	Matrix	<u> </u>	Redo;	<u>k Feature</u>	<u>s</u>		Terdura	Bomotio	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc	iexture	Remarks	
							<i>.</i>		
1			- durand Mantain Of						
<u>'Type: C=C</u>	oncentration, D=Depl	etion, RM=Re	educed Matrix, CE	= <u>Covere</u>	d of Coate	d Sand Gra	ains. ⊡∟o Indicator	stor Problematic Hydric Solls <sup>3</sup>	
Hydric Soli	indicators: (Applica		rks, unless ourer	wise not	eu.)		mulcator	s for Froblematic Hydric Sons .	
Histosol	(A1)		Sandy Redo	x (S5)			1 cm Muck (A9) (LRR C)		
Histic Ep	pipedon (A2)		Stripped Ma	trix (S6)			2 cm Muck (A10) (LRR B)		
Black Hi	istic (A3)		Loamy Muc	ky Minera	l (F1)		Reduced Vertic (F18)		
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red Parent Material (TF2)		
Stratified	d Layers (A5) (LRR C	;)	Depleted M:	atrix (F3)			Othe	r (Explain in Remarks)	
1 cm Mu	uck (A9) (LRR D)		Redox Dark	Surface	(F6)				
Deplete	d Below Dark Surface	e (A11)	Depleted Da	ark Surfac	æ (F7)				
Thick Da	ark Surface (A12)		Redox Depr	ressions (	F8)		<sup>3</sup> Indicator	s of hydrophytic vegetation and	
Sandy N	lucky Mineral (S1)		Vernal Pool	s (F9)			wetland	d hydrology must be present,	
Sandy G	Eleyed Matrix (S4)						unless	disturbed or problematic.	
Restrictive	Layer (if present):							·	
Type:			_						
Depth (in	ches):						Hydric Soil Present? Yes No		
Bomarka:			_				-		
nos	Mont An	A1255	umed n	49N)	ic Sc	21/			
$no \alpha$	NIGHT ON	9/00-		1					
IYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of o	ne required: c	beck all that apply	л			Sec	ondary Indicators (2 or more required)	
				(044)				Matar Marka (B1) (Biyarina)	
Sunace	vvater (A1)			(B11)					
High Wa	ater Table (A2)		Biotic Crus	st (B12)				Sediment Deposits (B2) (Riverine)	
_X Saturati	X Saturation (A3) Aquatic Invertebrates (B13)					Drift Deposits (B3) (Riverine)			
Water M	larks (B1) ( <b>Nonriver</b> i	ne)	Hydrogen	Sulfide O	dor (C1)			Drainage Pattems (B10)	
Sedimer	nt Deposits (B2) (Nor	nriverine)	Oxidized F	lhizosphe	res along	Living Root	ts (C3)	Dry-Season Water Table (C2)	
Drift Der	posits (B3) (Nonriver	ine)	Presence	of Reduce	d Iron (C	4)		Crayfish Burrows (C8)	
Surface	Soil Cracks (B6)	•	Recent Iro	n Reducti	on in Tille	d Soils (C6	)	Saturation Visible on Aerial Imagery (C9)	
Inundati	ion Visible on Aerial I	manery (B7)	Thin Muck	Surface	(C7)	• •	·	Shallow Aquitard (D3)	
	thingd Lonvor (P0)		Other (Evr	lain in Re	marke\			EAC-Neutral Test (D5)	
	stailleu Leaves (D9)				шакау				
rieid Ubser	vations:		<b>-</b>			1			
Surface Wat	er Present? Ye	es No	Depth (in	ches):					
Water Table	Present? Ye	es No	Depth (in	ches):		_			
Saturation P	resent? Y	es 🗸 🛛 No	Depth (in	ches):		Wetla	and Hydrolo	gy Present? Yes X No	
(includes ca	pillary fringe)	7					-		
Describe Re	corded Data (stream	gauge, monit	toring well, aerial p	photos, pr	evious ins	pections), i	if available:		
Remarks:						_			
Λ	~ ~ AININIL	HLARD	או מנמסינ	M6 1	MA 1	no Il	au		
Area	1 manter		1 210121	"U M	T DIV.	1 eru	5-7		
0 mil	mally and	Loh	Ť						
Sens	דעייץ אנט	you							
-	۱								
~	۲	_			_				

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WETLAND D	ETERMINATI	ON DATA FORM	<ul> <li>Arid West Regior</li> </ul>	า	
Project/Site TIPP(KMPLWER)	)	City/County Teho	uchupi /kern	Sampling Date:	4/13
		0.ty/00011ty.	Chotan CA	Sampling Date: _	
Applicant/Owner:		~ ~ ~ ~ ~ ~	State:R	_ Sampling Point	
nvestigator(s): <u>YU/ NU</u>		Section, Township, Ra	inge:	an	
Landform (hillslope, terrace, etc.):	<u>`0</u>	Local relief (concave,	convex, none): <u>CON</u>	Slop	e (%):
Subregion (LRR):	Lat:		_ Long:	Datur	n:
Soil Map Unit Name:	am	(140)	NWI classifie	cation: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical	for this time of ye	ar? Yes No _	(If no, explain in F	Remarks.)	
Are Vegetation <u>NO</u> , Soil <u>AO</u> , or Hydrology <u>1</u>	<u>へ</u> significantly	disturbed? Are '	"Normal Circumstances"	present? Yes	<b>∠</b> №_
Are Vegetation ۲ <u>۵</u> , Soil <u>۲</u> ۰۰, or Hydrology ۲	<u><math>10</math></u> naturally pro	blematic? (If ne	eded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS Attach site	man chowing	compling point l	ogations transport	important fo	aturos (
SUMMART OF FINDINGS - Attach site					atures, o
Hydrophytic Vegetation Present? Yes X	No	is the Sampler	1 Area		
Hydric Soil Present? Yes OS	men	within a Wetlar	nd? Yes	No X	
Wetland Hydrology Present? Yes	<u>No</u>				
Remarks:		al land da	nove by nor	in in	
soil samples not taken, e	ages of u	vetland obv	Mais by cha	vige ivi	
land form + vegetation	-				
VEGETATION – Use scientific names of	plants.				
Trac Stratum (Plot size)	Absolute	Dominant Indicator	Dominance Test work	(sheet:	
<u>Tree Stratum</u> (Plot size:)	<u>% Cover</u>	Species? Status	Number of Dominant S	pecies	
1			That Are OBL, FACW,	or FAC:	(A
2			Total Number of Domin	ant	
3			Species Across All Stra	ata:	(B
4			Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size:	)	_ = Total Cover	That Are OBL, FACW,	or FAC:	(A
1 ·			Prevalence Index wor	ksheet:	
2			Total % Cover of:	Multiply	by:
			OBL species	x1=	
3.					
34.			FACW species	x 2 =	
3 4 5.			FACW species	x 2 = x 3 =	
3 4 5		= Total Cover	FACW species FAC species FACU species	x 2 = x 3 = x 4 =	
3 4 5 Herb Stratum (Plot size:)			FACW species FAC species FACU species UPL species	x 2 = x 3 = x 4 = x 5 =	
3 4 5 <u>Herb Stratum</u> (Plot size:) 1JUNCUS)		Total Cover	FACW species FAC species FACU species UPL species Column Totals:	x 2 = x 3 = x 4 = x 5 = (A)	(
3 4 5 <u>Herb Stratum</u> (Plot size:) 1JUNCUS .sp. 2NOMESP.		Total Cover	FACW species FAC species FACU species UPL species Column Totals:	x 2 = x 3 = x 4 = x 5 = (A)	(I
3 4 5 <u>Herb Stratum</u> (Plot size:) 1UNCUS) 2NOME		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index	x 2 = x 3 = x 4 = x 5 = (A) x = B/A =	(I
3 4 5 <u>Herb Stratum</u> (Plot size:) 1JUNCUS) 2bromesp, 3 4		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation	x 2 = x 3 = x 4 = x 5 = (A) = = B/A = on Indicators:	(
3 4 5 Herb Stratum (Plot size:) 1. JUNCUS		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is	x 2 = x 3 = x 4 = x 5 = (A) = B/A = on Indicators:	(
3 4 5 Herb Stratum (Plot size:) 1. JUNCUS p. 2 TOME Sp. 3 4 5 6		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i	$\begin{array}{c} x & 2 = \\ x & 3 = \\ x & 4 = \\ x & 5 = \\ (A) \\ x = B/A = \\ A = \\ A$	(
3 4 5 1Uhcus.pp 2Uhcus.pp 3 4 5 6 7		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada	$ \begin{array}{c}                                     $	(I
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada data in Remark	$x 2 = \_$ $x 3 = \_$ $x 4 = \_$ $x 5 = \_$ $(A)$ $x = B/A = \_$ $A = =$ $A = \_$ $A = =$	supporting
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada data in Remark Problematic Hydro	$x 2 = \_$ $x 3 = \_$ $x 4 = \_$ $x 5 = \_$ $(A) = \_$ $x = B/A = \_$ $x = B/$	supporting sheet) (Explain)
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada data in Remark Problematic Hydro	x 2 = $x 3 = $ $x 4 = $ $x 5 = $ $(A)$ $x = B/A = $ $A = $ $A$	supporting sheet) (Explain)
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada data in Remark Problematic Hydro <sup>1</sup> Indicators of hydric soi be present, unless distri	x 2 = $x 3 = $ $x 4 = $ $x 5 = $ $(A)$ $x = B/A = $ $A = $ $A$	supporting sheet) (Explain) blogy must
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Morphological Ada data in Remark Problematic Hydro <sup>1</sup> Indicators of hydric soi be present, unless distribution	x 2 = x 3 = x 4 = x 5 = (A) = B/A = on Indicators: s >50% s ≤3.0 <sup>1</sup> ptations <sup>1</sup> (Provide s s or on a separate s phytic Vegetation <sup>1</sup> il and wetland hydro urbed or problemation	supporting sheet) (Explain) blogy musi
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetation Dominance Test is Prevalence Index i Prevalence Index i Morphological Ada data in Remark Problematic Hydro <sup>1</sup> Indicators of hydric soi be present, unless distri Hydrophytic Vegetation	x 2 = $x 3 = $ $x 4 = $ $x 5 = $ $(A)$ $x = B/A = $ $(A)$	supporting sheet) (Explain) blogy must
3.		_ = Total Cover	FACW species FAC species FACU species UPL species Column Totals: Prevalence Index Hydrophytic Vegetatio Dominance Test is Prevalence Index i Morphological Ada data in Remark Problematic Hydro <sup>1</sup> Indicators of hydric soi be present, unless distu Hydrophytic Vegetation Present? Ye	$x 2 = \_$ $x 3 = \_$ $x 4 = \_$ $x 5 = \_$ $(A) \_$ $x = B/A = \_$ $x = B/A $	supporting sheet) (Explain) blogy must



.

SOIL

Sampling Point: \_\_\_\_\_

Depth	Matrix		Redo	<u>ix Features</u>					
inches)	Color (moist)	<u> </u>	Color (moist)	%	Type <sup>1</sup>	<u>Loc<sup>2</sup></u>		Remarks	; 
Type: C=C	oncentration, D=Deple	tion, RM=	Reduced Matrix, C	S=Covered	or Coated	d Sand Gra	ains. <sup>2</sup> Location	: PL=Pore Lining,	M=Matrix.
Histosol	(A1)	die to all l	.RRS, unless othe	ox (S5)	a.)		1 cm Muck	(A9) (LRR C)	c 30115 ;
_ Histic Ep	pipedon (A2)		Stripped Ma	atrix (S6)			2 cm Muck	(A10) (LRR B)	
_ Black Hi	stic (A3)		Loamy Muc	ky Mineral	(F1)		Reduced Ve	ertic (F18)	
_ Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix (	(F2)		Red Parent	Material (TF2)	
_ Stratified	Layers (A5) (LRR C	)	Depleted M	atrix (F3)			Other (Expl	ain in Remarks)	
1 cm Mu	ick (A9) (LRR D)		Redox Dark	CSurface (F	-6)				
_ Depleter	d Below Dark Surface	(A11)	Depleted D	ark Surface	e (F7)				
Thick Date	ark Surface (A12)		Redox Dep	ressions (F	8)		<sup>a</sup> Indicators of hy	drophytic vegetatic	in and
_ Sandy N	lucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydro	ology must be pres	ent,
Sandy G	eleyed Matrix (S4)						unless disturb	ed or problematic.	
estrictive	Layer (if present):								
Type:									
Depth (in	ches):						Hydric Soil Pres	ent? Yes	No
Remarks:									

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; cha	eck all that apply)	Secondary Indicators (2 or more required)
L Surface Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
X 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 Livi	ng Roots (C3) Dry-Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
X Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled So	oils (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 (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspec	tions), if available:
Remarks:		

WETLAND DETEI	RMINATI	ON DATA FORM	– Arid West Region
Project/Site: TLRR / Kempilver		City/County: TCN	AChipi / Kern Sampling Date: 4/13/17
$\sum_{n \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{j \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{j \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{j \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{j \in \mathbb{N}} \sum_{i \in \mathbb{N}} \sum_{$		Saction Township Pa	
Investigator(s)		Least ralief (concerve	
	1 - 1 - 1	C.094425	$\frac{119}{2} = \frac{119}{4} = 11$
	_ Lat:	5.0.1123	
Soil Map Unit Name: TWO WW SUTTY (ULIN			NWI classification:
Are climatic / hydrologic conditions on the site typical for this	s time of ye	ar? Yes 🔨 🔜 No _	(If no, explain in Remarks.)
Are Vegetation $\underline{10}$ , Soil $\underline{10}$ , or Hydrology $\underline{10}$ s	ignificantly	disturbed? Are	"Normal Circumstances" present? Yes X No
Are Vegetation $\sqrt{10}$ , Soil $\sqrt{10}$ , or Hydrology $\sqrt{10}$ r	aturally pro	blematic? (If no	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling point l	locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       N         Hydric Soil Present?       Yes       N         Wetland Hydrology Present?       Yes       N         Remarks:       Yes       Yes	o o o	Is the Sampled within a Wetla	d Area nd? Yes X No
NO Soil samples taken, hyd	vicso und "	lls assume NWI	ed la
VEGETATION – Use scientific names of plan	ts.		
Tree Stratum (Plot size:	Absolute % Cover	Dominant Indicator	Dominance Test worksheet:
			Number of Dominant Species
2.			
3			Species Across All Strata:
4			
Sapling/Shrub Stratum (Plot size:)		= Total Cover	That Are OBL, FACW, or FAC:(A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3	. <del></del>		OBL species <u>95</u> x 1 = <u>95</u>
4			FACW species x 2 =
5			FAC species x 3 =
Horb Stratum (Blot aize:		= Total Cover	FACU species x 4 =
$\frac{\text{Herd Stratum}}{1} (\text{Plot size:} )$	95	UPS ORC	UPL species x 5 =
2 brone co	<u> </u>	<u></u>	Column Totals: (A) (B)
			Prevalence Index = B/A =
۵			Hydrophytic Vegetation Indicators:
5	·		_X Dominance Test is >50%
6.			X_ Prevalence Index is ≤3.0 <sup>1</sup>
7			Morphological Adaptations <sup>1</sup> (Provide supporting
8			data in Remarks or on a separate sheet)
50	160	= Total Cover	Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum (Plot size:) $\partial O$			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2			be present, unless disturbed or problematic.
$\sim$		= Total Cover	Hydrophytic Vegetation -
% Bare Ground in Herb Stratum % Cover	of Biotic C	rust	Present? Yes X No
Tuncushot dentifiable tos	pecies	, no flawer	ing parts

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SOIL			Sampling Point:
Profile Description: (Describe to the	depth needed to document the indicator or o	confirm the abse	nce of indicators.)
Depth Matrix	Redox Features		
(inches)Color (moist)%	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	eRemarks
		•	
<b></b>	<u> </u>		
· _ · _ ·			
			<u> </u>
<sup>1</sup> Type: C=Concentration D=Depletion.	RM=Reduced Matrix. CS=Covered or Coated S	Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to	o all LRRs, unless otherwise noted.)	Indicat	tors for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	1 (	cm Muck (A9) (I RR C)
Listic Epipodon (A2)	Stripped Matrix (S6)		cm Muck (A10) (LRR B)
Histic Epipedon (A2)	Supped Marix (SO)	2 C	aduced Vertic (E18)
Black Histic (A3)	Loamy Oleved Metrix (F1)		ad Baroot Motorial (TE2)
Hydrogen Suilide (A4)	Loarny Gleyed Matrix (F2)		ber (Evolein in Romarka)
Stratified Layers (AS) (LRR C)	Depleted Matrix (F3)	0	
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
Depicted Below Dark Surface (A11	Depleted Dark Sunace (F7)	31-41	tons of hudron hudro venetation and
Thick Dark Surface (A12)	Redox Depressions (F6)	indica	and hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernai Pools (F9)	weus	and hydrology must be present,
Restrictive Layer (if present):			
Туре:			
Depth (inches):		Hydric	Soil Present? Yes No
YDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one rec	uired; check all that apply)	<u> </u>	econdary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)		Water Marks (B1) (Riverine)
	Biotic Crust (B12)	-	Sediment Deposits (B2) (Riverine)
Coturation (A2)	Biolic Orbat (B12)	-	Drift Deposits (B2) (Riverine)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	-	_ Drainage Patterns (B10)
Sediment Deposits (B2) (Nonriver	ine) Oxidized Rhizospheres along Liv	ing 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 Tilled S	oils (C6)	Saturation Visible on Aerial Imagery (C9)
🗶 Inundation Visible on Aerial Imagei	ry (B7) Thin Muck Surface (C7)	_	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remarks)	_	_ FAC-Neutral Test (D5)
Field Observations:			
Surface Mater Present? Yes	No Depth (inches):		
	No Depin (inches):		
water lable Present? Yes			
Saturation Present? Yes <u>y</u> (includes capillary fringe)	No Depth (inches):()	Wetland Hydro	blogy Present? Yes <u></u> No
Describe Recorded Data (stream gauge	e, monitoring well, aerial photos, previous inspec	cuons), if available	3.
<i>C</i> .			
Remarks:		. ~	
agricultural area.	may drain will gate on	$\langle \cdot \rangle$	
Summer on one of the			



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WETLAND DETERMINATION	ON DATA FORM – Arid West Region
Project/Site:	City/County: Kern Sampling Date: 4/10/17
Investigator(s): <u>PAUCHE LAUBET</u> Landform (hillslope, terrace, etc.): <u>PODA</u> Subregion (LRR): <u>ATTA WEST</u> Lat: <u>3</u> Soil Map Unit Name: <u>WALCAG SANAT LOAM</u> Are climatic / hydrologic conditions on the site typical for this time of yea Are Vegetation <u>, Soil</u> , or Hydrology <u>significantly</u> Are Vegetation <u>, Soil</u> , or Hydrology <u>naturally pro</u> <b>SUMMARY OF FINDINGS – Attach site map showing</b>	Section, Township, Range: Control Control Slope (%): 15% Local relief (concave, convex, none): <u>CON COVE</u> Slope (%): 15% Slope (%): 15% Long: -1\8 · 6977 99 Datum: NWI classification: <u>NONE</u> ar? Yes <u>No</u> (If no, explain in Remarks.) disturbed?: Are "Normal Circumstances" present? Yes <u>No</u> blematic? (If needed, explain any answers in Remarks.) sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Feature is a pond, possibly Man Fer cuttel	Is the Sampled Area within a Wetland? Yes No X NIPULATED to be a water sarce

VEGETATION - Use scientific names of plants.

<b>.</b>	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Quercus dougias 1	- 15	-Jes-	UV .	That Are OBL, FACW, or FAC: (A) /
2				Total Number of Dominant
3			<u> </u>	Species Across All Strata:
4				
		= Total Cove	er	That Are OBL EACW or EAC FAIL (A/B)
Sapling/Shrub Stratum (Plot size:)		-		
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4.				FACW species x 2 =
5				FAC species x 3 =
·		- Total Cove		FACIL species Y 4 =
Herb Stratum (Plot size: )				
1 Bromus herbace as	90	yes	U.S.	Column Tatalau (A)
2 (nonnative)	- <u> </u>	-0		
3				Prevalence Index = B/A =
4.		<u> </u>		Hydrophytic Vegetation Indicators:
4				Dominance Test is >50%
5				Dominance rest is 200%
6. <u></u>		·		
7				Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	80	= Total Cove	ər	
Woody Vine Stratum (Plot size:)				1
1				Indicators of hydric soil and wetland hydrology must
2				
_	95	= Total Cove	er	Hydrophytic
% Bare Ground in Herb Stratum % Cove	r of Biotic Ci	rust	<b></b>	Vegetation Present? Yes No
Remarks:		11		
Dos not met requirements	Of o	i wet	and	
	. \ `as	0 0 1		ceed area
Blue additional with but be	nam	y Mg	epre	are a mina

Sampling Point:

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Prome pescription. (pescribe to the depth needed to docu	ment the indicator or c	onfirm the absence of indi	cators.)
Depth Matrix Red	ox Features		
(inches) Color (moist) % Color (moist)	<u>% Type' L</u>	pc <sup>2</sup> Texture	Remarks
<u> </u>			
			•
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, C	S=Covered or Coated Sa	Ind Grains. <sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRS, unless othe	erwise noted.)	Indicators for Pre	blematic Hydric Soils":
Histosol (A1) Sandy Rec	lox (S5)	1 cm Muck (A	9) (LRR C)
Histic Epipedon (A2) Stripped M	latrix (S6)	2 cm Muck (A	10) ( <b>LRR B</b> )
Black Histic (A3) Loamy Mu	cky Mineral (F1)	Reduced Vert	ic (F18)
Hydrogen Sulfide (A4) Loamy Gle	eyed Matrix (F2)	Red Parent M	aterial (TF2)
Stratified Layers (A5) (LRR C) Depleted N	/latrix (F3)	Other (Explain	n in Remarks)
1 cm Muck (A9) (LRR D) Redox Dar	k Surface (F6)		
Depleted Below Dark Surface (A11) Depleted D	)ark Surface (F7)		
Thick Dark Surface (A12) Redox Dep	pressions (F8)	<sup>3</sup> Indicators of hydr	ophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Poo	ols (F9)	wetland hydrold	gy must be present,
Sandy Gleyed Matrix (S4)		unless disturbe	1 or problematic.
Restrictive Layer (if present):			
Туре:			
Denth (inches):		Hydric Soil Prese	12 Yes No
Remarks:	al and DOAL	05	
no soil pit was dug, area r	10T MULTER	as wetland	per NW+
and will and with hur huir			
and sous are not ingoing			
YDROLOGY		с. С	
YDROLOGY Wetland Hydrology Indicators:		¢.	
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that app	102	s Secondary Ir	dicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that app		Secondary Ir	dicators (2 or more required)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X Surface Water (A1)	ly) t (B11)	<u>Secondary Ir</u> Water M	dicators (2 or more required) arks (B1) (Riverine)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	t (B11) Ist (B12)	<u>Secondary Ir</u> Water M Sedimer	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)          Salt Crust          High Water Table (A2)         X       Saturation (A3)	t (B11) Ist (B12) Ivertebrates (B13)	<ul> <li><u>Secondary Ir</u></li> <li>Water M</li> <li>Sedimer</li> <li>Drift Dep</li> </ul>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)          Salt Crust          High Water Table (A2)         X       Saturation (A3)          Aquatic Ir         Water Marks (B1) (Nonriverine)	t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1)	<ul> <li><u>Secondary Ir</u></li> <li>Water M</li> <li>Sedimer</li> <li>Drift Dep</li> <li>Drainage</li> </ul>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)          Salt Crust          High Water Table (A2)          Saturation (A3)          Aquatic Ir         Water Marks (B1) (Nonriverine)       Hydrogen          Sediment Deposits (B2) (Nonriverine)       Oxidized	t (B11) Ist (B12) Ivertebrates (B13) Sulfide Odor (C1) Rhizospheres along Livir	<u>Secondary Ir</u> <u>Water M</u> <u>Sedimer</u> <u>Drift Dep Drainage</u> g Roots (C3) <u>Dry-Sea</u>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)          Salt Crust          High Water Table (A2)          Saturation (A3)          Saturation (A3)          Sediment Deposits (B2) (Nonriverine)          Drift Deposits (B3) (Nonriverine)	t (B11) Ist (B12) Ivertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Livir Is of Reduced Iron (C4)	g Roots (C3)	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	t (B11) ist (B12) ivertebrates (B13) in Sulfide Odor (C1) Rhizospheres along Livir e of Reduced Iron (C4) on Reduction in Tilled So	<pre>     Secondary Ir     Secondary Ir     Water M     Sedimer     Drift Dep     Drainage g Roots (C3) Dry-Seas     Crayfish ils (C6) Saturatic </pre>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         Saturation (A3)       Aquatic Ir         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Irr         Inundation Visible on Aerial Imagery (B7)       Thin Much	t (B11) ist (B12) ivertebrates (B13) in Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7)	<pre>     Secondary Ir     Sedimer     Vater M     Sedimer     Drift Dep     Drainage g Roots (C3) Dry-Seas     Crayfish ils (C6) Saturatic     Shallow </pre>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         X       Saturation (A3)         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent In         Inundation Visible on Aerial Imagery (B7)       Thin Mucl         Water-Stained Leaves (B9)       Other (Ev)	t (B11) ist (B12) ivertebrates (B13) in Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) rolain in Remarks)	s <u>Secondary Ir</u> <u>Water M</u> <u>Sedimer</u> <u>Drift Dep</u> <u>Drainage</u> g Roots (C3) <u>Dry-Seas</u> <u>Crayfish</u> ils (C6) <u>Saturatic</u> <u>Shallow</u>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         Saturation (A3)       Aquatic Ir         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Iro         Inundation Visible on Aerial Imagery (B7)       Thin Much         Water-Stained Leaves (B9)       Other (Ex	t (B11) Ist (B12) Ivertebrates (B13) In Sulfide Odor (C1) Rhizospheres along Livir For Reduced Iron (C4) Ion Reduction in Tilled So K Surface (C7) Iplain in Remarks)	s Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Sear Crayfish ils (C6) Saturatio Shallow FAC-Net	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         Saturation (A3)       Aquatic Ir         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Iro         Inundation Visible on Aerial Imagery (B7)       Thin Mucl         Water-Stained Leaves (B9)       Other (Ex         Field Observations:       Yan	t (B11) ist (B12) ivertebrates (B13) is Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) cplain in Remarks)	<pre> Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Seas Crayfish ils (C6) Saturatic Shallow FAC-Net </pre>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         X       Saturation (A3)         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Into         Inundation Visible on Aerial Imagery (B7)       Thin Mucl         Water-Stained Leaves (B9)       Other (Ex         Field Observations:       Surface Water Present?       Yes         No       Depth (into	t (B11) ist (B12) ivertebrates (B13) is Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) inches):	<pre> Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Sear Crayfish is (C6) Saturatic Shallow FAC-Nei </pre>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         X       Saturation (A3)         Water Marks (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Inc         Inundation Visible on Aerial Imagery (B7)       Thin Mucl         Water-Stained Leaves (B9)       Other (Ex         Field Observations:       Yes       No       Depth (ir         Water Table Present?       Yes       No       Depth (ir	t (B11) ist (B12) ivertebrates (B13) ist Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) inches):	<pre> Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Sear Crayfish is (C6) Saturatic Shallow FAC-Net </pre>	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	t (B11) ist (B12) ivertebrates (B13) ist Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) plain in Remarks) inches): inches):	<u>Secondary Ir</u> Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Sea Crayfish ils (C6) Saturatio Shallow FAC-Net	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) h Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos previous incoment	<u>Secondary Ir</u> <u>Water M</u> <u>Sedimer</u> <u>Drift Dep</u> <u>Drinage</u> g Roots (C3) <u>Dry-Seas</u> <u>Crayfish</u> ils (C6) <u>Saturatic</u> <u>Shallow</u> <u>FAC-Net</u> Wetland Hydrology Prese	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) o Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir     Sedimer     Water M     Sedimer     Drift Dep     Drainage g Roots (C3) Dry-Seas     Crayfish ils (C6) Saturatic     Shallow     FAC-Net  Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)         High Water Table (A2)       Biotic Crust         X       Saturation (A3)         Y       Saturation (A3)         Sediment Deposits (B1) (Nonriverine)       Hydrogen         Sediment Deposits (B2) (Nonriverine)       Oxidized         Drift Deposits (B3) (Nonriverine)       Presence         Surface Soil Cracks (B6)       Recent Integration (B7)         Inundation Visible on Aerial Imagery (B7)       Thin Much         Water-Stained Leaves (B9)       Other (Ex         Field Observations:       Surface Water Present?       Yes         Surface No Depth (ir       Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir         Saturation Present?       Yes No Depth (ir	hty) t (B11) ist (B12) hvertebrates (B13) o Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Seas Crayfish Is (C6) Saturatio FAC-Net Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) o Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Seas Crayfish Is (C6) Saturatio FAC-Net Wetland Hydrology Prese Ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) h Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir Secondary Ir Water M Sedimer Drift Dep Drainage g Roots (C3) Dry-Seas Crayfish Is (C6) Saturatio FAC-Net Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) h Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir Secondary Ir Sedimer Sedimer Drift Dep Drainage g Roots (C3) Dry-Seas Crayfish Is (C6) Saturatic Shallow FAC-Net Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) h Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir     Sedimer     Sedimer     Drift Dep     Drainage g Roots (C3) Dry-Sear     Crayfish ils (C6) Saturatic     Shallow     FAC-Net Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that app         X       Surface Water (A1)	hty) t (B11) ist (B12) hvertebrates (B13) h Sulfide Odor (C1) Rhizospheres along Livir of Reduced Iron (C4) on Reduction in Tilled So k Surface (C7) splain in Remarks) hches): hches): photos, previous inspect	Secondary Ir     Sedimer     Sedimer     Drift Dep     Drainage g Roots (C3) Dry-Seas     Crayfish ils (C6) Saturatic     Shallow     FAC-Net Wetland Hydrology Prese ions), if available:	dicators (2 or more required) arks (B1) (Riverine) t Deposits (B2) (Riverine) osits (B3) (Riverine) e Patterns (B10) son Water Table (C2) Burrows (C8) in Visible on Aerial Imagery (C9) Aquitard (D3) utral Test (D5)

012 (S.Side Bandachizd)

WETLAND DETER	RMINATIO		A FORM -	- Arid West Regio	n
Project/Site: TLRF/Kern		City/County	, K	ern	Sampling Data: 4/13/
	`	ony, ooung	•	Stata: CA	Campling Date:
havestigator(a) Villette (ALDEL					_ Sampling Point:
investigator(s). <u>1000000000000000000000000000000000000</u>	·	Section, 10	iwnsnip, Ra	nge:	
Landrorm (nullslope, terrace, etc.): $QVVCSVCCC$	. <u> </u>		ו (concave) ו געון גון	convex, none): <u>CC</u>	$\frac{1000}{1000}$ Slope (%): <u>~</u>
Subregion (LRR):	_ Lat: <u>5</u>	2.04	4311	Long:6	<u>35 MY</u> Datum:
Soil Map Unit Name:			17	NWI classi	fication: TAKE
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar?Yes	<u>X_</u> №_	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology s	ignificantly (	disturbed?	ND Are "	Normal Circumstances	" present? Yes 🗶 🚬 No 🔄
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic?	NO (If ne	eded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point le	ocations, transect	ts, important features, et
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Assume Yes N Wetland Hydrology Present? Yes X N Remarks: Area most likely saturated From adjacout feature	° ° L due	Is the with	in a Wetlar	Area nd? Yes Tau From	X No Culverts
VEGETATION - Use scientific names of plan	ts.				
Tree Stratum (Plataire)	Absolute	Dominant	Indicator	Dominance Test wo	rksheet:
	% Cover	<u>Species</u> ?	Status	Number of Dominant	Species
2.			<u>-</u>		, 01 FAG (A)
3	,	<u> </u>		Total Number of Dom Species Across All St	inant A
4					, and <u> </u>
Sapling/Shrub Stratum (Plot size: )		= Totał Co	ver	That Are OBL, FACW	Species /, or FAC: <u>」しい</u> (A/B)
1				Prevalence Index wo	orksheet:
2		<u> </u>		Total % Cover of:	Multiply by:
3	·			OBL species	x 1 =
4				FACW species	x 2 =
5	,			FAC species	x 3 =
Herb Stratum (Plot size:		= Total Co	ver	FACU species	x 4 =
1. Schoenoplectus americanu	Q.30	VRS	obl	UPL species	x 5 = (D)
2. Lepidium latitolium	10	ind	for		(A) (B)
3. Brownus sp.	50	Jes	facle	Prevalence Inde	•x = B/A =
4				Hydrophytic Vegetat	ion Indicators:
5				Dominance Test i	is >50%
6				Prevalence Index	is ≤3.0'
7	·			Morphological Ad data in Remar	aptations' (Provide supporting ks or on a separate sheet)
8				Problematic Hydr	ophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: )		= Total Co	ver		
1.				<sup>1</sup> Indicators of hydric so	oil and wetland hydrology must
2.				be present, unless dis	turbed or problematic.
		= Total Co	ver	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust		Present? Y	es_ <u>-</u> X No
Area disturbed by Graz	ing c	ind	1002	/culvert	

Sampling Point:

Depth         Matrix         Redox Features           (inches)         Color (moist)         %         Color (moist)         %	
	an <sup>2</sup> Toxtura Bomarka
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sa Hydric Soil Indicators; (Applicable to all LRRs, unless otherwise noted.)	and Grains. <u>Location: PL=Pore Lining, M=Matrix.</u> Indicators for Problematic Hydric Soils <sup>3</sup> :
Histored (A1)	1 om Muck (AQ) (I BB C)
Histosof (A1) Salidy Redux (S5)	
Fisuc Epipedon (A2) Supped watrix (S6)	
Black Histic (A3) Loamy Mucky Mineral (F1)	
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)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	unless disturbed or problematic.
Restrictive Layer (if present):	
Type:	
Papite (inches):	Hudria Sail Brasant2 Van Xi NA
Depin (inches).	
Remarks:	
Havala sall series forms from all unum an	d usually derived from avani
no soil pitalla	
IYDROLOGY	
HYDROLOGY Wetland Hydrology Indicators:	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         N Surface Water (A1)    Salt Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
YDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         Hind Water Table (A2)         Surface Crust (B11)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Denosits (B2) (Riverine)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         V Surface (A0)         V Surface (A2)         Wether (A1)         Primary Indicators (B12)         V Surface (A2)         V Surface (A2)         V Surface (A2)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         X         Saturation (A3)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         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) Drainage Patterns (B10)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         Xaturation (A3)         Water Marks (B1) (Nonriverine)         Sediment Deposits (B2) (Nonriverine)         Oxidized Rhizospheres along Livir	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ng Roots (C3) Dry-Season Water Table (C2)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         Xaturation (A3)         Water Marks (B1) (Nonriverine)         Sediment Deposits (B2) (Nonriverine)         Drift Deposits (B3) (Nonriverine)         Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)         High Water Table (A2)       Biotic Crust (B11)         Y       Saturation (A3)         Water Marks (B1) (Nonriverine)       Aquatic Invertebrates (B13)         Hydrogen Sulfide Odor (C1)       Oxidized Rhizospheres along Livir         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Tilled So	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) ng Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         Yetland Hydrology Indicators: </td <td>Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Actuiterd (D3)</td>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Ing Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Actuiterd (D3)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)       Salt Crust (B11)         High Water Table (A2)       Biotic Crust (B12)         Y Saturation (A3)       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Tilled So         Y Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)	Secondary Indicators (2 or more required)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         Xaturation (A3)         Water Marks (B1) (Nonriverine)         Drift Deposits (B2) (Nonriverine)         Drift Deposits (B3) (Nonriverine)         Surface Soil Cracks (B6)         Xinface Soil Cracks (B7)         Yinface Soil Cracks (B7)         Yinface Soil Cracks (B7)         Xinface Soil Cracks (B7)         Yinface Soil Cracks (B7)         Yinface Soil Cracks (B7)	Secondary Indicators (2 or more required)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)         High Water Table (A2)       Salt Crust (B11)         Y       Saturation (A3)         Water Marks (B1) (Nonriverine)       Aquatic Invertebrates (B13)         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Tilled So         Xinduction Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Water-Stained Leaves (B9)       Other (Explain in Remarks)	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         uils (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)        Water Marks (B1) (Riverine)        Sediment Deposits (B2) (Riverine)        Drift Deposits (B3) (Riverine)        Drinage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)        Crayfish Burrows (C8)         saturation Visible on Aerial Imagery (C        Shallow Aquitard (D3)        FAC-Neutral Test (D5)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)        Water Marks (B1) (Riverine)        Sediment Deposits (B2) (Riverine)        Drift Deposits (B3) (Riverine)        Drift Deposits (B3) (Riverine)        Drinage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)        Crayfish Burrows (C8)         sils (C6)      Saturation Visible on Aerial Imagery (C        Shallow Aquitard (D3)        FAC-Neutral Test (D5)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)
IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)
IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)
<b>1YDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y         Surface Water (A1)         High Water Table (A2)         Xaturation (A3)         Water Marks (B1) (Nonriverine)         Drift Deposits (B2) (Nonriverine)         Drift Deposits (B3) (Nonriverine)         Surface Soil Cracks (B6)         Xaturation Visible on Aerial Imagery (B7)         Thin Muck Surface (C7)         Water Table Present?         Yes         No         Depth (inches):         Surface Water Present?         Yes         No         Depth (inches):         Surface Water Present?         Yes         No         Depth (inches):         Surface Water Present?         Yes         No         Depth (inches):         Saturation Present?         Yes         No         Depth (inches):         Depth (inches):         Saturation Present?         Yes         No         Depth (inches):         Saturation Present?         Yes       No	Secondary Indicators (2 or more required)
<b>1YDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         iills (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         iils (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)    Wetland Hydrology Present? Yes No
IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         iils (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)    Wetland Hydrology Present? Yes <u>No</u> No
<b>IYDROLOGY</b> Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         sills (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)    Wetland Hydrology Present? Yes No
IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y       Surface Water (A1)         High Water Table (A2)       Biotic Crust (B11)         High Water Table (A2)       High Water Table (A2)         Y       Saturation (A3)       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Tilled So         X Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Output (inches):         Surface Water Present?       Yes         Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):       Material photos, previous inspect         Water Table Present?       Yes       No       Depth (inches):       Material photos, previous inspect         Remarks:       Arca I S OVE FAW Gran Adj act F G	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)       Dry-Season Water Table (C2)         Crayfish Burrows (C8)         isls (C6)       Saturation Visible on Aerial Imagery (C         Shallow Aquitard (D3)         FAC-Neutral Test (D5)    Wetland Hydrology Present? Yes No
IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)       Salt Crust (B11)         High Water Table (A2)       Biotic Crust (B12)         Y Saturation (A3)       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B2) (Nonriverine)       Oxidized Rhizospheres along Livir         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron (C4)         Surface Soil Cracks (B6)       Recent Iron Reduction in Tilled So         Y Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Output (inches):         Surface Water Present?       Yes       No         Saturation Present?       Yes       No         Depth (inches):       Output (inches):       Output (inches):         Saturation Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):       Output (inches):         Bater Table Present?       Yes       No       Depth (inches):       Output (inches):       Output (inches):       Output (inches):       Ou	Secondary Indicators (2 or more required)         Water Marks (B1) (Riverine)         Sediment Deposits (B2) (Riverine)         Drift Deposits (B3) (Riverine)         Drainage Patterns (B10)         ng Roots (C3)         Dry-Season Water Table (C2)         Crayfish Burrows (C8)         sills (C6)         Shallow Aquitard (D3)         FAC-Neutral Test (D5)         Wetland Hydrology Present?         Yes         No         tions), if available:

get/Site:       TLXFF/SCM       City/County:       Let M       Sampling Date:       4/13/         JoinantOvers:       State:       Sampling Date:       4/13/         JoinantOvers:       State:       Sampling Date:       4/13/         JoinantOvers:       State:       Sampling Date:       Sampling Date:       4/13/         Jean Monter:       Local relief (conceve: convex. none):       Sampling Date:       4/13/         Jean Monter:       Local relief (conceve: convex. none):       State:       A       Sampling Date:       4/13/         Jean Monter:       Local relief (conceve: convex. none):       State:       State:       A       Sampling Date:       4/13/         Jean Monter:       Local relief (conceve: convex. none):       State:       State:       State:       NO       Item Charles (conceve: convex. none):       State:       NO		TERMINAT	ION DATA FOR	M – Arid West Region
Sitte:       CA       Sampling Point:         setsigator(s):       QUERC_LOUDEX       Section, Township, Range:       Slope (%):         pregion (LRR):       Local reliaf (concave, concex, none):       Slope (%):       Slope (%):         indept of thistope, terrace, etc.):       Local reliaf (concave, concex, none):       Slope (%):       Slope (%):         IMap Unit Name:       HQUCIA CallAdy [Quew)       No       Wild classification:       NO         Imatic / hydrologic conditions on the site typical for this time of year? Yes       No       Wo       Interacts)         Vegetation       Soli       or Hydrology       significanity distineet? NO       Wee Xon       No         Vegetation       Soli       or Hydrology       naturally problemstic? NO       Its the Sampled Area within a Weetand?       No       No         Idmoshive Vegetation Present?       Yes       No       No       No       No       Its the Sampled Area within a Weetand?       No       No       No       Its the Sampled Area within a Weetand?       No       No       No       Its the Sampled Area within a Weetand?       No       No       Its the Sampled Area within a Weetand?       No       No       No       Its the Sampled Area within a Weetand?       No       No       Its the Sampled Area within a Weetand?       No       No <th>oject/Site: TLPP/kcrn</th> <th></th> <th>City/County:</th> <th>ern Sampling Date: 4/13</th>	oject/Site: TLPP/kcrn		City/County:	ern Sampling Date: 4/13
eatigator(s):	plicant/Owner:		-	State: CA Sampling Point:
dform (hillislope, terrace, etc.):	estigator(s): RAUEHE LOUBET		Section, Township,	Range:
region (LRR):       Lat:       25.094527       Long:       118.436/08       Datum:         Map Link Itame:       HQUALA CANAY I/QUAN       No       No       No       No       No         climatic / hydrologic conditions on the site kpical for this time of year? Yes       No       (if no, explain in Remarks.)       No         Vegetation       Soil       or Hydrology       naturally problematic? NO       (if no, explain in Remarks.)         MMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et drophytic Vegetation Present?       Yes       No         Mark Statum       Yes       No       Its the Sampled Area within a Wetland?       Yes       No         Sub Present?       Ms_MyreXes       No       Its the Sampled Area within a Wetland?       No	dform (hillslope, terrace, etc.):		Local relief (concav	ve, convex, none): Slope (%):
Map Unit Name:       HQUQLQ CQUAY (2004)         Imate Trydrologic conditions on the site pipel for this time of year? Yes       No       (If no, explain in Remarks.)         Vegetation       Soll       or Hydrology       aignificanily disturbed? A(0)       Are "Normal Circumstances" present? Yes       No         Vegetation       Soll       or Hydrology       naturally problematic? NO (If needed, explain any answers in Remarks.)         MMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, ef ydrophytic Vegetation Present?       Yes       No         ydro Soll Present?       Yes       No       is the Sampled Area within a Wetland?       Yes       No         within a Wetland?       Yes       No       within a Wetland?       Yes       No	pregion (LRR):	Lat:	35.09452	7 Long: -118.636108 Datum:
climatic / hydrologic conditions on the sile typical for this time of year? Yes	Map Unit Name: Havala Sandy [	Jam -		NWI classification: NONE
Vegetation       Soll       or Hydrology       significantly disturbed? AIO       Are "Normal Circumstances" present? Yes × No         Vegetation       Soll       or Hydrology       naturally problematic? NO       (If needed, explain any answers in Remarks.)         MMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et drophytic Vegetation Present?       Yes       No         drophytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?       No         drand Hydrology Present?       Yes       No       Is the Sampled Area within a Wetland?       No         South CF FeatUre       OD12 / AISO MOST HIKELW OD04FLOW From Ceatures OI4 and D15 (Fresh W04er Wethat) four of Corrinant Species       OutParts         GETATION – Use scientific names of plants.       Assolute Dominant Indicator       Number of Dominant Species       Q         Belland Stratum       (Piot size:	climatic / hydrologic conditions on the site typical fo	r this time of ve	ear? Yes 📈 No	o (If no. explain in Remarks.)
Vegetation       Soli       or hydrology       naturally problematio?       NO         MMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et propriate Vegetation Present?       Yes       No         Very dric Soli Present?       Yes       No       Is the Sampliad Area within a Wetland?       Yes       No         genaries:       No       Yes       No       Is the Sampliad Area within a Wetland?       Yes       No         GETATION - Use scientific names of plants.       Solute       Dominant Indicator       No       Quert Act Solute       Q	Vegetation, Soil, or Hydrology	significantly	disturbed? A/A	ve "Normal Circumstances" present? Yes X No
MMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et         draphylic Vegetation Present?       Yes       No         wittin a Wetland?       Yes       No         ettand Hydrology Present?       Yes       No         Yes       No       Is the Sampled Area         wittin a Wetland?       Yes       No         South CF Geature       OOI2 / alSO most Hikelwy OVerflow Fram Reaferes OI4 an         Dib (Fresh workshoet       Absolute       Dominant Indicator         BETATION - Use scientific names of plants.       Absolute       Dominant Indicator         Be Stratum (Plot size:       Absolute       Dominant Indicator       Nomer Across All Strate:       (B)         Prevalence index workshoet:       Mumber of Dominant Species       2       (A)         Total Number of Dominant Species       2       (A)         Total Number of Dominant Species       2       (B)         Prevalence index workshoet:       Call       (B)         Total Number of Dominant Species       2       (B)         Total Number of Dominant Species       2       (A)         Total Scover       Free of Dominant Species       2       (A)         Deling(Shub Stratum (Plot size:       =       Total Cover	Vegetation , Soil , or Hydrology	naturally pr	oblematic? NO (If	f needed, explain any answers in Remarks.)
within a Vertain OP Findings - Attach site map showing sampling point locations, transects, important reatures, et         drophytic Vegetation Present?       Yes       No         within a Wetland?       Yes       No         Wetland Hydrology Present?       Yes       No         GETATION - Use scientific names of plants.       Dominance Test worksheet:       (A)         Total Xecover       % Cover       Status       Dominance Test worksheet:       (A)         Total Xecover       = Total Cover       Total Xecover of Multiply by:       (B)         Schoen a Pectus Americanus for a separate sheet)       Facu				
def coll Present?       Yes       No         Marc Soll Present?       Assume Ves       No         Within a Wetland?       Yes       No         within a Wetland?       Yes       No         Basking Vesent?       Species?       Status         No       Total Number of Dominant Species       1         That Are OBL, PACW, or FAC:       100       (A)         Species Across Al Status       No		ap snowing	sampling poin	it locations, transects, important features, e
Add Solution Present?       Assume Sees       No       within a Wetland?       Yes       No         etland Hydrology Present?       Yes       No       within a Wetland?       Yes       No         SOLHW OF Feature       OOI2 / ALSO MOST HINCLW OVOLFIOW From Features OI4 and DIS (Fresh Wolfer wethows) for an end of plants.       Dominant Present?       No         GETATION - Use scientific names of plants.       Absolute Dominant Indicator       Dominant Species?       Status         Mumber of Dominant Species?       Status       No       That Are OBL, FACW, or FAC.       (A)         Total Number of Dominant Species?       Status       No       Percent of Dominant Species       (A)         Delind/Shrub Stratum       (Plot size:	/drophytic Vegetation Present? Yes 🔀	_ No	is the Samn	
ettand Hydrology Present?       Yes       No         SOUTM OF Geature 0012 / also most linkely 000(flow from Geatures 014 am 015 (fresh water wettants) fbw accross street allowed by auverts         GETATION - Use scientific names of plants.         as Stratum (Plot size:       Absolute Species? Status         minimation       Mumber of Dominant Species         ge Stratum (Plot size:       Absolute Species?         minimation       Species Across All Strata:         ge Stratum (Plot size:       —         minimation       —         minimation       Focus of the size:         minimation       —         minimation       Multiply by:         OBL species       x1 =         minimation       X1 =         minimation       X1 =         minimation       Multiply by:         OBL species       x1 =         minimation       X1 =         minimation       X1 =         minimation       X1 =         minimation       Multiply by:         OBL species       x1 =         minimation       X1 =         minimation       X1 =         minimation       X1 =         minimation       Multiply by:         OBL species	rdric Soil Present? A SSMWe Yes	No 🗻	within a Wet	tland? Yes No
mans. Cuth of feature 0012 / also most likely of offaw from features offaw DE (Fresh worksheet wethand) fow across street allowed by curverts GETATION - Use scientific names of plants. BE Stratum (Plot size:	etland Hydrology Present? Yes X	No		
Diff (Fresh worksheet: Number of Dominants)         GETATION - Use scientific names of plants.         GETATION - Use scientific names of plants.         Be Stratum (Plot size:	Marks:	iso mos	+likelw di	Norflow from pateres DILLa
DO CHTEST/WARY WETTING ) (DW CICLOSS STREET CATION – Use scientific names of plants.         GETATION – Use scientific names of plants.         as Stratum (Plot size:	NE (Cocheste and allow)			handler handler
GETATION - Use scientific names of plants.         ae Stratum (Plot size:	no (mesnimater wething)	HOW CICY	USS Stree	+ allowed by curverts
as Stratum       (Plot size:	GETATION – Use scientific names of p	lants.		
We Stratum       Ye Lover       Speciels?       Status         Number of Dominant Species       2       (A)         That Are OBL, FACW, or FAC:       2       (B)         Percent of Dominant Species       2       (B)         Percent of Dominant Species       2       (A)         Total Number of Dominant Species       2       (A)         Deling/Shrub Stratum       (Plot size:       2         Percent of Dominant Species       1       2         Prevalence Index worksheet:       Total % Cover of:       Multiply by:         OBL species       x1 =       FACW species       x2 =         FAC species       x3 =       FACW species       x4 =         UPL species       x5 =       Column Totals:       (A)       (B)         Prevalence Index = B/A =       UPL species       x5 =       Column Totals:       (A)       (B)         Prevalence Index = B/A =       UPL species       x5 =       Column Totals:       (A)       (B)         Prevalence Index = B/A =       UPL species       x5 =       Column Totals:       (A)       (B)         Prevalence Index = B/A =       UPL species       x5 =       (A)       (B)       (Cover of Bobic Cover       (Cover of S)       (Cover of S)<		Absolute	Dominant Indicato	Dominance Test worksheet:
Imat Are Obl., FACW, of PAC:       (A)         Total Number of Dominant       (B)         Percent of Dominant Species       (B)         Percent of Dominant Species       (A)         That Are Obl., FACW, of FAC:       (A)         Percent of Dominant Species       (A)         Prevalence Index worksheet:       (A)         Obl. species       x1 =         FACW species       x2 =         FACW species       x3 =         FACW species       x4 =         UPL species       x5 =         Column Totals:       (A)         Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)       Prevalence Index is \$3.0'         Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)       Problematic Hydrophytic Vegetation' (Explain)         'Indicators of hydric soil and wetland hydro	<u>e stratum</u> (Plot size:)	<u>% Cover</u>	<u>Species?</u> Status	<ul> <li>Number of Dominant Species</li> <li>That Are OBL FACK as FAC:</li> </ul>
Total Number of Dominant       Species Across All Strata:				That are OBL, FACVV, or FAC: (A)
point(Shrub Stratum (Plot size:)       = Total Cover       Percent of Dominant Species That Are OBL, FACW, or FAC: (A/E)         Prevalence Index worksheet:		<u> </u>		<ul> <li>Total Number of Dominant</li> <li>Species Across All Strata:</li> </ul>
piling/Shrub Stratum (Plot size:)       = Total Cover       Percent of Dominant Species (A/E         piling/Shrub Stratum (Plot size:)       = Total Cover       Prevalence Index worksheet: (A/E         mining (Plot size:)       = Total % Cover of: (Mitiply by: OBL species (A/E)       OBL species (A/E)         mining (Plot size:)       = Total Cover       FACW species (A/E)         mining (Plot size:)       = Total Cover       FACU species (A/E)         Schoenoplectus ametic (arms 50 Jes of the formula stratum (Plot size:)       Jes of the formula stratum (A/E)       FACU species (A/E)         Dreme Undex SP,				
piping/shrub Stratum (Plot size:			_ = Total Cover	That Are OBL, FACW, or FAC:
Image: Second stratum       Providence index worksited:         Image: Second stratum       Image: Second stratum         Image: Second stratum       Image: Second strat	pling/Shrub Stratum (Plot size:)			Brouglenge Index werkeheet:
Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the stratum         Image: Section of the stratum       Image: Section of the section of the section of the stratum         Image: Section of the s				Total % Cover of:Multiply by:
FACW species       x 2 =			·	
Image: Constraint of the size:       Image: Constraintend of the size:       Image: Constraintend of the size:<				OBL species x 1 =
Image: Schoenoplectus amelicanus 50       Jest doin       FACU species       x 4 =         Schoenoplectus amelicanus 50       Jest doin       Facu       UPL species       x 5 =         Column Totals:			·	OBL species x 1 = FACW species x 2 =
Distriction       (Plot size:			·	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =
I e pi dium latifolium       5       Auc       Column Totals:       (A)       (B)         Prevalence Index SP.       30       Auc       Prevalence Index = B/A =       Hydrophytic Vegetation Indicators:         Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)       Prevalence Index is \$3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation       Iteration       1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Bare Ground in Herb Stratum       % Cover of Biotic Crust       Yes       No			= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =
Brownus SP.       3.0       Prevalence index = B/A =	rb Stratum (Plot size:)	  2VW4S 50	= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =
1	<u>rb Stratum</u> (Plot size:) SCHOENOPPETUS amelica Le Di Jum latifolium	<u>anus 50</u>	_= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)
	<u>Bitratum</u> (Plot size:) Schoenoplectus america Lepidum latifolium Bromus SP.	<u>anus 50</u>	= Total Cover <u>JLS</u> <u>COI</u> <u>Pac</u>	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =       (A)
	<u>I-epidum</u> (Plot size:) SChoenoplectus america I-epidum latifolium Branus Sp.	anus 50 5 30	Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =       (B)         Hydrophytic Vegetation Indicators:
Cover of Biotic Crust % Cover of Biotic Crust Yes	<u>rb Stratum</u> (Plot size:) Schoenoplectus america I-e pidum latifolium Bremus Sp.	<u>anus 50</u> 5 30	= Total Cover JES Obl Aac Facu	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         Dominance Test is >50%
	<u>rb Stratum</u> (Plot size:) Schoenoplectus amelica I-epidium latifolium Bromus Sp.	anus 50 5 30	= Total Cover 	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =       (B)         Hydrophytic Vegetation Indicators:       Dominance Test is >50%         Prevalence Index is ≤3.01       1
indy Vine Stratum (Plot size:)	<u>rb Stratum</u> (Plot size:) <u>SChoenoplectus ameli(a</u> <u>Le pidum latifolium</u> Bromus Sp.	anu <u>s 50</u> 5 30	= Total Cover <u>Jes</u> <u>Ool</u> <u>Aac</u> 	OBL species $x 1 =$ FACW species $x 2 =$ FAC species $x 3 =$ FACU species $x 4 =$ UPL species $x 5 =$ Column Totals:(A)Prevalence Index = B/A =Hydrophytic Vegetation Indicators:Dominance Test is >50%Prevalence Index is <3.01
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Image: Stratum	<u>rb Stratum</u> (Plot size:) Schoenoplectus amelica I-e pidum latifolium Bromus Sp.	anus 50 5 30 	Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         Dominance Test is >50%         Prevalence Index is $\leq 3.0^1$ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Bare Ground in Herb Stratum % Cover of Biotic Crust       be present, unless disturbed or problematic.         Hydrophytic       Vegetation         Present?       Yes	<u>erb Stratum</u> (Plot size:) <u>SChOENOP) ectus america</u> <u>I-e pidum latifolium</u> <u>Bromus SP.</u> 	<u>anus 50</u> 5 30 	= Total Cover <u>JLS</u> <u>Dal</u> <u>A</u> ac <u>A</u> <u>A</u> <u></u>	OBL species $x 1 =$ FACW species $x 2 =$ FAC species $x 3 =$ FACU species $x 4 =$ UPL species $x 5 =$ Column Totals:(A)Prevalence Index = B/A =Hydrophytic Vegetation Indicators:Dominance Test is >50%Prevalence Index is $\leq 3.0^1$ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Bare Ground in Herb Stratum % Cover of Biotic Crust Hydrophytic Yegetation Present? Yes No /	Dody Vine Stratum (Plot size:) Dody Vine Stratum (Plot size:) Difference (Plot size:)	anus 50 5 30	= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =       (B)         Hydrophytic Vegetation Indicators:       Dominance Test is >50%         Prevalence Index is <3.01
Bare Ground in Herb Stratum % Cover of Biotic Crust Present? Yes X No V	Dody Vine Stratum (Plot size:)	anus 50 5 30	= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         Dominance Test is >50%         Prevalence Index is $\leq 3.0^1$ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	Dody Vine Stratum (Plot size:)	anus 50 5 30 30	= Total Cover	OBL species       x 1 =         FACW species       x 2 =         FAC species       x 3 =         FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =       (B)         Hydrophytic Vegetation Indicators:       Dominance Test is >50%         Prevalence Index is $\leq 3.0^1$ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)       1         Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Hydrophytic

Sampling Point:

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Depth <u>Matrix</u>	Redox	Features				
inches) Color (moist) %	Color (moist)	<u>   %                                 </u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
- <u> </u>						
						_
		<u> </u>				
	<u> </u>					<u> </u>
		<u> </u>				
ype: C=Concentration, D=Depletion, RM=I	Reduced Matrix, CS=	Covered	or Coate	d Sand Gra	ains. <sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.
dric Soil Indicators: (Applicable to all L	RRs, unless otherv	vise notec	1.)		Indicators fo	r Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	Sandy Redox	(S5)			1 cm Mu	ck (A9) ( <b>LRR C</b> )
Histic Epipedon (A2)	Stripped Mat	rix (S6)			2 cm Mu	ck (A10) (LRR B)
Black Histic (A3)	Loamy Muck	y Mineral (	(F1)		Reduced	Vertic (F18)
_ Hydrogen Sulfide (A4)	Loamy Gleve	d Matrix (f	F2)		Red Pare	ent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Mat	trix (F3)			Other (E:	plain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark \$	Surface (F	6)			
Depleted Below Dark Surface (A11)	Depleted Dar	k Surface	(F7)			
_ Thick Dark Surface (A12)	Redox Depre	ssions (F8	3)		<sup>3</sup> Indicators of	hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vemal Pools	(F9)			wetland hv	drology must be present.
Sandy Gleyed Matrix (S4)		· -/			unless dist	urbed or problematic.
estrictive Layer (if present):			· <u> </u>			
Type						
Depth (inches):					Hydric Soil B	rasanta Vas Na
Depth (inches): emarks: thead does not conta	ain hydr	icsc	). Isli	noi	Hydric Soil Pi PI+WQ	resent? Yes <u>No K</u> S JUG
Depth (inches): emarks: KNEC JOES NOT CONTO DROLOGY	ain hydr	ilsc	Dils,	noi	Hydric Soil Pi	resent? Yes <u>No</u> K
Depth (Inches): emarks: TNEA JOES NOT CONTA DROLOGY etland Hydrology Indicators:	ain NYJV	ic sc	2115	noi	Hydric Soil Pi	resent? Yes <u>No</u>
Depth (inches): emarks: WEA DOES NOT CONT DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one required;	GIN NY W	ic sc	2115	noi	Hydric Soil Pr PI+ Wa Seconda	resent? Yes <u>No</u>
Depth (inches): emarks: WEA DES NOT CONT DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one required; Surface Water (A1)	GIN NY W		)  5,	n07	Hydric Soil Pr PI+ Wa <u>Seconda</u>	resent? Yes <u>No</u>
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0014 Csarth of		
		– Arid West Region
Project/Site: TLPP/KCM Applicant/Owner:	City/County: TCM	DC/DQ1 /kcm         Sampling Date:4/13/17-
Investigator(s):	Section, Township, Ra Local relief (concave, 5, 094425 ear? Yes No _ disturbed? NO Are oblematic? NO (If ne	ange:
SUMMARY OF FINDINGS - Attach site map showing Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Assume Yes No Wetland Hydrology Present? Yes No Remarks: Palustrike emergent wetlan	Is the Sampled within a Wetlan	ocations, transects, important features, etc. I Area nd? Yes X No
VEGETATION Use scientific names of plants.	-	
Tree Stratum         (Plot size:)         Absolute           1.	Dominant Indicator Species? Status	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:         Total Number of Dominant         Species Across All Strata:
4	_ = Total Cover	Percent of Dominant Species         That Are OBL, FACW, or FAC:
Herb Stratum (Plot size:) 1SCWCENCEDIE CHUS AMERICANUS 40 2BCOMUS SP 20 3	_= Total Cover 2	FACU species       x 4 =         UPL species       x 5 =         Column Totals:       (A)         Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:
5 6 7 8 60	= Total Cover	<ul> <li>✓ Dominance Test is &gt;50%</li> <li>Prevalence Index is ≤3.0<sup>1</sup></li> <li>Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>
Woody Vine Stratum         (Plot size:)           1.         ()           2         ()		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum % Cover of Biotic C	_ = Total Cover	Hydrophytic Vegetation Present? Yes <u>No</u>
Remarks: Wet meadow, grazing area w/	drainage	

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Sampling Point:

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Depth Matrix	Redox Feat	ures			
inches) Color (moist) %	Color (moist) %	<u> </u>	Loc <sup>2</sup>	Texture	Remarks_
		<b>.</b>			
			<u>-</u>		
Type: C=Concentration, D=Depletion, RM=R	educed Matrix, CS=Cove	ered or Coate	d Sand Gr	ains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all Li	Ks, unless otherwise i	ioted.)		Indicators	for Problematic Hydric Soils":
Histosol (A1) Histic Epipedon (A2)	Sandy Redox (S5)	8)		1 CM N 2 om N	
Black Histic (A3)	Loamy Mucky Min	o) eral (F1)		2 cm w	ad Vertic (E18)
Hvdrogen Sulfide (A4)	Loamy Gleved Ma	trix (F2)		Red Pa	arent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F	3)		Other (	Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surfa	œ (F6)			
Depleted Below Dark Surface (A11)	Depleted Dark Suit	face (F7)			
Thick Dark Surface (A12)	Redox Depression	s (F8)		<sup>3</sup> Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)			wetland	hydrology must be present,
Sandy Gleyed Matrix (S4)				uniess di	sturbed or problematic.
Turner				ĺ	
Type:					
Depth (inches).				Live and A Call	DNO V N-
remarks: NO SOI PHOUG - area C	- lassified as	a fres'	nwate	Hydric Soil	present? Yes <u>No</u>
remarks: NO SON PHOUGS area C NOWEWWY (LORS NCT CORTE NOROLOGY	lassified as in hydric s	afrest Dils	nwate	Hydric Soil	present? Yes <u>No</u>
remarks: NO SOI PHOUS/ Area C NOVEWY (DES NCH (DAHE (DROLOGY Vetland Hydrology Indicators:	lassified as in hydric s	aftes' DIS	nwate	Hydric Soil	present? Yes <u>No</u>
remarks: NO SOI PHOUG - Area C NWEWY (DES NCH COAHE DROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required;	LASSIGELOS AIN MYDRICS	aftes' DIS	nwate	Hydric Soil	Present? Yes <u>No</u> Jent Wetland, dary Indicators (2 or more required)
emarks: NO SOI PHOUG - Area C VWEWY WES NCH COAHE IDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required; Surface Water (A1)	LASSIGELAS AIN MUDICS <u>check all that apply</u> Salt Crust (B11)	aftes' Dils	nwate	Hydric Soil	Present? Yes <u>No</u> <u>Bent Wetland</u> , <u>dary Indicators (2 or more required)</u> later Marks (B1) ( <b>RiverIne</b> )
emarks: NO SOI PHOUG - Area C VINEWA WES NOT COATE (DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2)	Check all that apply) Salt Crust (B11) Biotic Crust (B12)	afres' DIS	nwate	Hydric Soil	Present? Yes <u>No</u> Sent WET Land, dary Indicators (2 or more required) ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne)
emarks: NO SCAI PHOUG - Area C VWEWW (VES NCH COAHE /DROLOGY /etland Hydrology Indicators: rimary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3)	Check all that apply) Salt Crust (B11) X Aquatic Invertebr	Q-Acs D!\S ates (B13)	nwate	Hydric Soil	Present? Yes <u>No</u> Pent WET LAND, dary Indicators (2 or more required) ater Marks (B1) (RiverIne) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine)
emarks: NO SOI PHOUG - Area C WEWW WES NOT COTHE DROLOGY /etiand Hydrology Indicators: rimary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	LASSIGELOS AIN MARICS <u>check all that apply</u> <u>Salt Crust (B11)</u> Biotic Crust (B12) Aquatic Invertebr Hydrogen Sulfide	O.Acs DIS ates (B13) Odor (C1)	n wate	Hydric Soil	Present? Yes <u>No</u> Pent WET AND, dary Indicators (2 or more required) ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne) ift Deposits (B3) (RiverIne) rainage Pattems (B10)
emarks: NO SOI PHOUG - Area C VOUCHAR (WES NCH COAHE <b>/DROLOGY</b> <b>/etland Hydrology Indicators:</b> rimary Indicators (minimum of one required; / Surface Water (A1) _ High Water Table (A2) X Sutraction (A3) _ Water Marks (B1) (Nonriverine) _ Sediment Deposits (B2) (Nonriverine)	LASSIGELOS AIN MYDYIC S <u>check all that apply</u> <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebr</u> <u>Hydrogen Sulfide</u> <u>Oxidized Rhizosp</u>	O.Acs DIS DIS ates (B13) Odor (C1) heres along	NW2+4e	Hydric Soil	Present? Yes <u>No</u> <u>Cent Wetland</u> , <u>dary Indicators (2 or more required)</u> ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne) rift Deposits (B3) (RiverIne) rainage Pattems (B10) y-Season Water Table (C2)
temarks: NO SOI PHOUG - Area C VOUCHAR (WES NCH COAHE <b>rDROLOGY</b> Vetland Hydrology Indicators: trimary Indicators (minimum of one required; Vetland Hydrology Indicators: Vetland Hydrology Ind	LASSIGELAS AIN MARICS Check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu	CL-ACS DIS DIS dis (B13) Odor (C1) theres along uced Iron (C4	NW2He	Hydric Soil	Present? Yes <u>No</u> <u>pent Wetland</u> , <u>dary Indicators (2 or more required)</u> ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne) rift Deposits (B3) (Riverine) rainage Pattems (B10) y-Season Water Table (C2) rayfish Burrows (C8)
temarks: NO SOI PHOUG - Area C VWEWN (WES NCH COAHE <b>TDROLOGY</b> Vetland Hydrology Indicators: trimary Indicators (minimum of one required; Yetland Hydrology Indicators: trimary Indicators (minimum of one required; Vetland Hydrology Indicators: trimary Indicators (minimum of one required; Yetland Hydrology Indicators: trimary Indicators (minimum of one required; Vetland Hydrology Indicators: trimary Indicators (Minimum of one required; Yetland Hydrology Indicators: Surface Water (A1) Diff Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	LASSIGLE LAS AIN MULTIC S Check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu	OLACS DIS ates (B13) Odor (C1) theres along uced Iron (C4 uction in Tilled	Living Roo	Hydric Soil	Present? Yes <u>No</u> <u>Pent Wet and</u> , <u>dary Indicators (2 or more required)</u> ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne) rainage Pattems (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9
temarks: NO SOI PHOUG - Area C VOUCON (DOES NOT COAHE <b>rDROLOGY</b> Vetland Hydrology Indicators: trimary Indicators (minimum of one required; Vetland Hydrology Indicators: Surface Water (A1) Sufface Water (A1) Minimum of (A3) Water Marks (B1) (Nonriverine) Sufface Soil Cracks (B6) Inundation Visible on Aeriat Imagery (B7)	Check all that apply) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Thin Muck Surface	A A C A A C A A C A A C A A C A A C A A C A	Living Roo	Hydric Soil	Present? Yes <u>No</u> <u>Cent WEHOUND</u> , <u>dary Indicators (2 or more required)</u> ater Marks (B1) (RiverIne) ediment Deposits (B2) (RiverIne) rift Deposits (B3) (RiverIne) rainage Pattems (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9 hallow Aquitard (D3)
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temarks: NO SOI PHOUGY Area C VWEWW (VES NOT ODATE <b>TIMARY Indicators:</b> rimary Indicators (minimum of one required; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aeriat Imagery (B7) Water-Stained Leaves (B9) ield Observations: urface Water Present? Yes X No vater Table Present? Yes X No vater Table Present? Yes X No concludes capillary fringe) escribe Recorded Data (stream gauge, moni- emarks: ANEW IS SEASCIALLY FUE	ASSIGEDOS in hydric s check all that apply) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Recent Iron Redu Other (Explain in 0 Depth (inches): Depth (inches): 	CL-ACS D) \S ates (B13) Odor (C1) heres along uced Iron (C4 rction in Tilled te (C7) Remarks) D previous Ins Previous Ins	Living Roo J Soils (C6) Wetla pections), i CWS C	Hydric Soil	Present? Yes No dery Indicators (2 or more required) ater Marks (B1) (RiverIne) ater Marks (B1) (Ri
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0015 (NofBanduachi) Ra	
WETLAND DETERMINATION DATA FORM – Arid West Region	
Project/Site: TLPB/KEVM City/County: TENACHARI/ACVM sampling Date: 4/13	/17
Applicant/Owner: State: State:	
Investigator(s): <u>paulette Labet</u> Section, Township, Range:	
Landform (hillslope, terrace, etc.):	2 <i>0</i> /0
Subregion (LRR): Lat: <u>35,094425</u> Long: <u>-118,635467</u> Datum:	
Soil Map Unit Name: Havala Sandy 10am NWI classification: PEMIC	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes 📈 No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e	etc.
Hydrophytic Vegetation Present?       Yes No       Is the Sampled Area         Hydric Soil Present?       Yes No       within a Wetland?       Yes No         Wetland Hydrology Present?       Yes No       No       No	
Freshwater Emergent Wetland, seasonally flooded	

·		<b>D</b>	
Tree Stratum (Plot size:	Absolute % Cover	Species? Status	Dominance lest worksneet:
1			Number of Dominant Species
2	·		
2	·	<u> </u>	Total Number of Dominant
3			Species Across All Strata: (B)
4			Percent of Dominant Species
Scoling/Shaih Stratum /Dist size:		= Total Cover	That Are OBL, FACW, or FAC: (() (A/B)
			Dravalanes Index werkeheet
	·		Tatal & Causes f
2			I otal % Cover of: Multiply by:
3			OBL species x 1 =
4			FACW species x 2 =
5			FAC species x 3 =
		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)	76	del	UPL species x 5 =
1 SCALCTOPIECTAS Unitericultury	15_	- yn 001	Column Totals: (A) (B)
2. <u>replainm latitatium</u>	15	-y- the	
3. <u>bromus sp</u>		<u> </u>	Prevalence Index = B/A =
4		· · · · · · · · · · · · · · · · · · ·	Hydrophytic Vegetation Indicators:
5			_X Dominance Test is >50%
6			Prevalence Index is ≤3.0 <sup>1</sup>
7			Morphological Adaptations <sup>1</sup> (Provide supporting
8.			data in Remarks or on a separate sheet)
	RA	= Total Cover	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)	-00-		
1			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
2. /			be present, unless disturbed or problematic.
		= Total Cover	Hydrophytic
			Vegetation
% Bare Ground in Herb Stratum % Cover	of Biotic Cn	ust	Present? Yes <u>^</u> No
Remarks:			

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SOIL				Sampling Point:
Profile Description:	(Describe to the de	pth needed to document the indicator or c	confirm the absence	of indicators.)
Denth	Matrix	Redox Features		· · · · · · · · · · · · · · · · · · ·
(inches) Cold	or (moist)%	Color (moist)%Type' _L	oc <sup>2</sup> Texture	Remarks
,	<u> </u>			
	·			
	<u> </u>	·		
				<u> </u>
<u> </u>				
		·		<u> </u>
<sup>1</sup> Type: C=Concentra	tion, D=Depletion, RM	I=Reduced Matrix, CS=Covered or Coated S	and Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicate	rs: (Applicable to al	I LRRs, unless otherwise noted.)	Indicators 1	for Problematic Hydric Solls*:
Histosol (A1)		Sandy Redox (S5)	1 cm M	uck (A9) (LRR C)
Histic Epipedon	(A2)	Stripped Matrix (S6)	2 cm M	uck (A10) (LRR B)
Black Histic (A3)	)	Loamy Mucky Mineral (F1)	Reduce	d Vertic (F18)
Hydrogen Sulfide	e (A4)	Loamy Gleyed Matrix (F2)	Red Pa	rent Material (TF2)
Stratified Layers	(A5) (LRR C)	Depleted Matrix (F3)	Other (I	Explain in Remarks)
1 cm Muck (A9)	(LRR D)	Redox Dark Surface (F6)		
Depleted Below	Dark Surface (A11)	Depleted Dark Surface (F7)		
Thick Dark Surfa	ace (A12)	Redox Depressions (F8)	<sup>3</sup> Indicators of	of hydrophytic vegetation and
Sandy Mucky Mi	ineral (S1)	Vernal Pools (F9)	wetland h	iydrology must be present,
Sandy Gleyed M	latrix (S4)		unless dis	sturbed or problematic.
Restrictive Layer (if	/ present):	· · ·		
Туре:				
Depth (inches):			Hydric Soil I	Present? Yes <u>X</u> No
Remarks:				<del></del>
	. 1 1	1		
	assumed r	ydirc		
		0		
HYDROLOGY				
Watland Hydrology	Indicators'			
Dimon Indicators (n		-d. sheat all that analy)	Sacon	den Indiastora (2 or more required)
Philadelinaicators (in	INNIMUM OF ONE require			
Surface Water (/	41)	Salt Crust (B11)	vv	ater Marks (B1) (Riverine)
High Water Tabl	e (A2)	Biotic Crust (B12)	56	diment Deposits (B2) (Riverine)
Saturation (A3)		Aquatic Invertebrates (B13)	Dr	ift Deposits (B3) (Riverine)
Water Marks (B1	i) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dr	ainage Pattems (B10)
Sediment Depos	its (B2) (Nonriverine)	) Oxidized Rhizospheres along Livir	ng Roots (C3) 🔡 Dr	y-Season Water Table (C2)
Drift Deposits (B	3) (Nonriverine)	Presence of Reduced Iron (C4)	Čr	ayfish Burrows (C8)
Surface Soil Cra	cks (B6)	Recent Iron Reduction in Tilled Sc	oils (C6) Sa	aturation Visible on Aerial Imagery (C9)
Inundation Visibl	le on Aerial Imagery (F	37) Thin Muck Surface (C7)	Sh	allow Aquitard (D3)
Water-Stained L	eaves (B9)	Olher (Explain in Remarks)	 FA	C-Neutral Test (D5)
Field Observations:		,		
Curfeee Mater Dress	-12 Var	No Danih (inabas):		
Sunace water mese	∩t? tes			
Water Table Present	? Yes	No Uepth (inches):		1-
Saturation Present?	Yes 🦯	No Depth (inches):/ /	Wetland Hydrology	Present? Yes <u>X</u> No
(Includes capillary init	<u>ige)</u> Deta (stream dauge, ir	Lonitoring well aerial photos, previous inspec	tions) if available:	
Describe Recorded a	Ala (sucan yaaya,	onitoning weil, denai priotos, previeus inspes-	liuns), ii availabio.	
Remarks:				

	Banduchi Rd
0016	(Rond/atten woods)

WETLAND DETERMINATION	DATA FORM – Arid West Region
Project/Site: 12PP/Kern City/	County: Kern/Tehachapi Sampling Date: 4/13/17
Applicant/Owner:	State: CA Sampling Point:
Investigator(s): Daylette Laubet Secti	on, Township, Range:
Landform (hillstope, terrace, etc.): Loca	al relief (concave, convex, none): Slope (%):
Subregion (LRR): And West Lat: 35.	094253 Long: 118.611491 Datum:
Soil Map Unit Name: TEhachapi Sandy Loam_	NWI classification: NOne
Are climatic / hydrologic conditions on the site typical for this time of year?	res No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	rbed? NO Are "Normal Circumstances" present? Yes 🗶 No
Are Vegetation, Soil, or Hydrology naturally problem	atic? NO (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sar	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?     Yes     No       Hydric Soil Present?     Yes     No       Wetland Hydrology Present?     Yes     No	Is the Sampled Area within a Wetland? Yes No
Remarks:	
man made pond w/ planted a	tton wood trees
• •	

**VEGETATION – Use scientific names of plants.** 

	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	<u>Species?</u> <u>Status</u>	Number of Dominant Species
1. POPULUS Fremmentil	<u>    ()     </u>	yes the	That Are OBL, FACW, or FAC: (A)
2		v	
3.			Species Across All Strata: 3 (B)
4			
T			Percent of Dominant Species (0
Sapling/Shub Stratum (Plot size:		_ = Total Cover	That Are OBL, FACW, or FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
2			
4			
5			FAC species X 3 =
	<u> </u>	= Total Cover	FACU species x 4 =
	20	LPC 112	UPL species x 5 =
1. BICINUS		$\frac{1}{100}$	Column Totals: (A) (B)
2. 14pha. Sp.	9	THES DU	
3		<u> </u>	Prevalence index = B/A =
4			Hydrophytic Vegetation Indicators:
5			X. Dominance Test is >50%
6.			Prevalence Index is ≤3.0 <sup>1</sup>
7			Morphological Adaptations <sup>1</sup> (Provide supporting
8			data in Remarks or on a separate sheet)
0	05		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Moody Vine Stratum (Plot size:		= Total Cover	
			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
2			
		= Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5 % Cove	r of Biotic C	rust_Ø	Present? Yes No
Remarks			
		AS MARY LA	and boom Diantel
ATTER IS MAN, PURATED / CUT	unw	so may v	we been plance

US Army Corps of Engineers

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Sampling Point:

Depth Matrix Peder College	ator or contirn	the absence (	of indicators.)
(inches) Color (moist) % Color (moist) % Ty	pe' Loc <sup>2</sup>	Texture	Remarks
			Remarke
·			
· · · · · · · · · · · · · · · · · · ·			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or C	coated Sand Gr	ains. <sup>-</sup> Loca	ation: PL=Pore Lining, M=Matrix.
lydric Soli indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators 1	or Problematic Hydric Soils":
Histosol (A1) Sandy Redox (S5)		1 cm M	uck (A9) (L <b>RR C</b> )
Histic Epipedon (A2) Stripped Matrix (S6)		2 cm M	uck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)		Reduce	d Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)		Red Pa	rent Material (TF2)
Straumed Layers (A5) (LRR C) Depleted Matrix (F3)		Olher (B	zplain in Remarks)
rom Muck (A9) (LKK D) Redox Dark Surface (F6)			
Depleted Delow Dark Surface (AT1) Depleted Dark Surface (F7	)	31	f bandar - tantan ana ang
Thick Dark Surface (A12) Redox Depressions (F8)		Indicators of	of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (F9)		wettand n	yarology must be present,
_ Oandy Oleyed Matrix (04)			
Type			
Depth (Inches):		Hydric Soil F	Present? Yes No
Yomarke.			· ·
	``		<b>\</b>
no sal Ritwas dug, area not down	red in	etand	M NWI
no sal pit was dug, area not dan	red w	etand	on NWI
no salpitwas dug, areq not dan or does it contain hydric soils pe	red n'	etana wedsou	Survey
no sal pit was dug, areq not down X does it contain hydric soils pe IDROLOGY	ned n'	wed south	I ON NWI Isurvey
no sal pit was dug, areq not dan or does it contain hydric sails pe YDROLOGY	red n'	etana wedsou	Son NWI Isurvey
no sal pit was dug, areq not dan or does it contain hydric soils pe YDROLOGY Vetland Hydrology Indicators:	red w	wedsou	d on NWI Iswivey
NO SOIL Pit Was dug, areq not dan or does it contain hydric soils pe YDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply)	red w	etana wedsou	MNWI ISWIVEY
NO SOIL PIT WOUS dug, areq not down X does it contain hydric soils pe YDROLOGY Vetland Hydrology Indicators: Inimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Salt Crust (B11)	red w	etana wedsou	ater Marks (B1) (Riverine)
NO SOIL Pit Was dug, areq not down         NO SOIL Pit Was dug, areq not down         X does it contain my dvic soils per         /DROLOGY         Vetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Surface Water (A1)	red n'	etkana wedsou <u>Secona</u> Wa Se	A NWI Survey lary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine)
NO SOIL Pit Was dug, areg not dans         NO SOIL Pit Was dug, areg not dans         X does it contain hydric soils per         /DROLOGY         Vetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Surface Water (A1)	ned wither the	12.4 Katha Wed 5000 <u>Seconc</u> Wa Se Dri	A NWI Survey lary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine)
NO SOIL Pit Wass dug, areg not demained         NO SOIL Pit Wass dug, areg not demained         X does it contains my dvic soils performed         Yorder of the contained in the containe	ned wither the	<u>et</u> wed sou <u>Seconc</u> Se Dri Dri	ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) atinge Patterns (B10)
NO SOIL Pit Wass dug, areq not dam         NO SOIL Pit Wass dug, areq not dam         X does it contains         Yetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         High Water Table (A2)         Saturation (A3)         Water Marks (B1) (Nonriverine)         Yetlament Deposits (B2) (Nonriverine)         Oxidized Rhizospheres all	NED N er -the 3) 1) ong Living Root	<u>et</u> Wed sout <u>Seconc</u> Wa Se Dri Dri s (C3)Dry	ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) atinge Patterns (B10) y-Season Water Table (C2)
NO SOIL Pit Wass dug, areq not damage of the contained of th	NED N er -the 3) 1) ong Living Root	<u>e</u> + YAN ( <u>wed son</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Cra</u>	A NWI A NWI A Survey A star Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
NO SOI Pit WOLS Jug, areq not Jam         NO SOI Pit WOLS Jug, areq not Jam         X does H contain hydrology noticators:         rimary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)       Salt Crust (B11)         High Water Table (A2)       Biotic Crust (B12)         Saturation (A3)       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres all         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron         Surface Soil Cracks (B6)       Recent Iron Reduction in	a) 1) (C4) Tilled Soils (C6)	<u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Se</u>	A NWI An NWI An NWI An Anter Marks (2 or more required) Anter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
NO SOI Pit WOLS Jug, areq not Jam         NO SOI Pit WOLS Jug, areq not Jam         X does H (on talk hydrology noticators:         rimary Indicators (minimum of one required; check all that apply)         Yetland Hydrology Indicators:         rimary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)       Salt Crust (B11)         High Water Table (A2)       Biolic Crust (B12)         Saturation (A3)       Aquatic Invertebrates (B13)         Water Marks (B1) (Nonriverine)       Hydrogen Sulfide Odor (C         Sediment Deposits (B2) (Nonriverine)       Oxidized Rhizospheres all         Drift Deposits (B3) (Nonriverine)       Presence of Reduced Iron         Surface Soil Cracks (B6)       Recent Iron Reduction in         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)	a) 1) ong Living Root (C4) Tilled Soils (C6)	<u>e</u> + YAN a wed son Second Va Se Dri Cra s (C3) Dry Cra Sa Sh	A NWT An NWT Survey Anter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3)
NO SOIL Pit WOLS Jug, areq not Jam         NO SOIL Pit WOLS Jug, areq not Jam         X does H (on fail M Mydric Soils per fail of the second s	3) 1) ong Living Root (C4) Tilled Soils (C6) 3)	<u>e</u> + YAN a wed son Second Wa Se Dri Cra s (C3) Dri Cra Sa Sh FA	A NWI An NWI An NWI An Anton State Stat
NO SOI Pit WO S dug, areq not damage of the contained of the	a) a) b) c) c) c) c) c) c) c) c) c) c	<u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Secon</u>	A NWI An NWI Survey Anter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
NO SOL Pit WOLS Jug, areq not Jam         NO SOL Pit WOLS Jug, areq not Jam         OX JOES H (ON HAIM MY JAVIC SOLLS PE         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1) (Nonriverine)         Drift Deposits (B2) (Nonriverine)         Drift Deposits (B3) (Nonriverine)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7)         Thin Muck Surface (C7)         Water-Stained Leaves (B9)         Other (Explain in Remarks         Single Observations:         Surface Water Present?	Ald N er - the 3) (1) ong Living Root (C4) Tilled Soils (C6) (C4)	<u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Secon</u>	A NWI An NWI Survey Anter Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5)
NO SOI Pit WO S dug, areg not damage of the contained of the	Ald N er - the 3) (1) ong Living Root (C4) Tilled Soils (C6) (C4)	<u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Secon</u>	A NWI Survey (Survey)
NO SOI Pit WO S dug, areq not damage of the contained of the	Ald N er -the 3) 1) ong Living Root (C4) Tilled Soils (C6) s)	<u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Seconc</u> <u>Secon</u>	A NWE Survey
NO SOIL Pit WOLS Jug, areq not Jun         NO SOIL Pit WOLS Jug, areq not Jun         X does if containing of one required; check all that apply.         Vetland Hydrology Indicators:         trimary Indicators (minimum of one required; check all that apply).         Surface Water (A1)	NLd     NL       3)	E + YAM a WE3 5% ( 	A NWE Survey
NO SOL Pit WOLS Jug, areg not Jam         NO SOL Pit WOLS Jug, areg not Jam         X does H (cntain hydrology noticators:         'rimary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1) (Nonriverine)         Drift Deposits (B2) (Nonriverine)         Drift Deposits (B3) (Nonriverine)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7)         Inundation Visible on Aerial Imagery (B7)         Urface Water Present?         Yes         No         Depth (inches):         urface Water Present?         Yes         No         Depth (inches):         Mater Table Present?         Yes         No         Depth (inches):         Stater Table Present?         Yes         No       Depth (inches):         Mater Table Present?         Yes       No         Depth (inches):         Mater Table Present?         Yes       No         Depth (inches):         Mater Table Present?         Yes       No	3) 1) ong Living Roof (C4) Tilled Soils (C6) 3) Wetla s inspections), i	e + YAM a wed 50 M Second Wa Se Dri Sa Sa Sa Sh FA	A NWE Survey lary Indicators (2 or more required) ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) allow Aquitard (D3) C-Neutral Test (D5) Present? Yes X No
NO SOL Pit WOLS Jug, areq not Jun OV Joes H CONTAIN Mydruc Soils Performance         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)	ALD IN Pr - the 3) 1) ong Living Roof (C4) Tilled Soils (C6) s) Wetla s inspections), i	S (C3) Cra S (C3) Cra S (C3) Cra S (C3) Cra S (C3) Cra S (C3) Cra S (C3) Cra Cra S (C3) Cra Cra S (C3) Cra Cra S (C3) Cra Cra S (C3) Cra Cra S (C3) Cra S (C3) Cra Cra S (C3) Cra S (C3) Cra Cra S (C3) Cra S (C3)	A NWI SUIVEY
NO SCI Pit Was Jug, areg not Jam         NO SCI Pit Was Jug, areg not Jum         OX JOES H CONTAIN MY Loss per structure         Vimary Indicators         Primary Indicators (minimum of one required; check all that apply)         Y Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1) (Nonriverine)         Drift Deposits (B2) (Nonriverine)         Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (B7)         Inundation Visible on Aerial Imagery (B7)         Water Table Present?         Yes         No         Depth (inches):         Water Table Present?         Yes         No         Depth (inches):         Mater Table Present?         Yes         No         Depth (inches):         Water Table Present?         Yes         No         Depth (inches):         Mater Table Present?         Yes         No       Depth (inches):         Mater Table Present?         Yes       No       Depth (inches):         Mater Table Present?       Yes       No       Depth (inches):         Mat	Ald N er - the 3) 1) ong Living Root (C4) Tilled Soils (C6) s) Wetla s inspections), it	s (C3) Kalongy Second Wa Se Dri Cra Sa FA	A NWI Survey ISUVEY ISUVEY Isuvey
NO SOI Pit Was dug, areg not damage of the contained of the	Ald M er - the 3) 1) ong Living Roof (C4) Tilled Soils (C6) s) Wetla s inspections), it MUDVLC	nd Hydrology	A NWE Survey Isourvey I
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## ATTACHMENT E

**USACE** Jurisdictional Waters Mapping





















































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## <u>Legend</u>

- Structure Location
- Photo Locations

An EDISON INTERNATIONAL " Company

Access Roads



- Survey Area
- 100 Foot Radius Tower Buffer
  - USACE/RWQCB Other Waters














































#### GORMAN-KERN RIVER 66 kV PROJECT

JURISDICTIONAL DELINEATION





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## <u>Legend</u>

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Structure Location

SOUTHERN CALIFORNIA

Photo Locations

An EDISON INTERNATIONAL " Company

Access Roads



 $\bigcirc$ 

- Survey Area
- 100 Foot Radius Tower Buffer
- USACE/RWQCB Wetland Waters
- Wetland Sample Location









### <u>Legend</u>

- **Structure Location**  $\bigcirc$ 
  - **Photo Locations**

An EDISON INTERNATIONAL " Company

Access Roads



- Survey Area
- 100 Foot Radius Tower Buffer
  - USACE/RWQCB Other Waters









OJECTS\\_EN\ Zone 11N





#### <u>Legend</u>

**Structure Location**  $\bigcirc$ 

SOUTHERN CALIFORNIA

Photo Locations

An EDISON INTERNATIONAL " Company

Access Roads



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- Survey Area
- 100 Foot Radius Tower Buffer
  - USACE/RWQCB Other Waters















JURISDICTIONAL DELINEATION

















































# **ATTACHMENT F**

**CDFW Jurisdictional Waters Mapping** 




















































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## <u>Legend</u>

 $\bigcirc$ 

- **Structure Location**
- Photo Locations

An EDISON INTERNATIONAL " Company

Access Roads



 $\bigcirc$ 

Survey Area

- 100 Foot Radius Tower Buffer
  - USACE/RWQCB Wetland Waters
  - Wetland Sample Location









## <u>Legend</u>

 $\bigcirc$ 

- **Structure Location**
- Photo Locations
  - Access Roads
- Survey Area
- 100 Foot Radius Tower Buffer
  - **CDFW State Waters**









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## <u>Legend</u>

- Structure Location  $\bigcirc$ 
  - Photo Locations

An EDISON INTERNATIONAL " Company

Access Roads



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- Survey Area
- 100 Foot Radius Tower Buffer
  - **CDFW State Waters**









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## **ATTACHMENT G**

Photographic Log





**Photo 1**. Feature US0001, facing south east, 4/06/17



Photo 2. Feature US0002, facing west, 4/06/17



**Photo 3**. Feature US0003, facing southeast, 4/06/17



Photo 4. Feature 0004, facing north, 4/06/17



Photo 5. Feature USW0001, facing north, 4/06/17



**Photo 6**. Feature 0009, facing south west, 4/06/17


**Photo 7**. Feature USW0002, facing north, 4/06/17



**Photo 8**. Feature USW0003 and USW0004, facing north, 4/06/17



**Photo 9**. Feature 0013, facing southwest, 4/05/17



**Photo 10**. Feature US0007, facing south, 4/05/17



Photo 11. Feature USW0006, facing north, 4/05/17



**Photo 12**. Feature USW0007, facing south, 4/04/17



Photo 13. Feature US0008, facing south, 4/04/17



Photo 14. Feature USW0008, facing north, 4/04/17



**Photo 15**. Features USW0009, facing northwest, 4/04/17



Photo 16. Feature 0028, facing west, 4/04/17



**Photo 17**. Feature USW0010, facing northwest, 4/03/17



Photo 18. Feature US0016, facing east, 4/03/17



Photo 19. Feature US0017, facing west, 4/03/17



**Photo 20**. Feature US0018, facing southeast, 4/03/17



**Photo 21**. Feature US0019, facing north, 4/03/17



**Photo 22**. Feature 0046, facing northwest, 4/03/17



Photo 23. Feature US0041, facing south, 4/13/17



Photo 24. Feature 0055, facing south, 4/13/17



Photo 25. Feature USW0012, facing south, 4/13/17



**Photo 26**. Feature USW0013, facing north, 4/13/17



Photo 27. Feature USW0014, facing south, 4/13/17



Photo 28. Feature USW0015, facing north, 4/13/17



Photo 29. Feature US0039, facing north, 4/11/17



**Photo 30**. Feature 0035, facing northwest, 4/11/17



Photo 31. Feature US0033, facing west, 4/11/17



**Photo 32**. Feature USW0011, facing east, 4/11/17



**Photo 33**. Feature US0031, facing southwest, 4/10/17



**Photo 34**. Feature US0030, facing southwest, 4/10/17



Photo 35. Feature US0026, facing west, 4/07/17



Photo 36. Feature US0024, facing south, 4/07/17



Photo 37. Feature US0022, facing north, 3/28/17



Photo 38. Feature US0042, facing west, 3/28/17



Photo 39. Feature US0043, facing south, 3/28/17



Photo 40. Feature US0044, facing west, 3/24/17



Photo 41. Feature US0045, facing west, 3/24/17



Photo 42. Feature US0046, facing east, 4/13/17



**Photo 43**. Feature US0048, facing north, 4/13/17



Photo 44. Feature US0052, facing south, 4/13/17



Photo 45. Feature US0053, facing west, 4/12/17



Photo 46. Feature US0055, facing west, 4/12/17



Photo 47. Feature US0056, facing west, 4/12/17



**Photo 48**. Feature US0058, facing southwest, 4/12/17



Photo 49. Feature US0059, facing west, 4/13/17



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