Aquatic Resource Delineation Report for

McDonald/Mack Minor Land Division Project

5460 King Road LoomisPlacer County, California



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TABLE OF CONTENTS

	Page
1.0 Summary of Findings	1
2.0 Introduction	2
2.1 Project Location	2
2.2 Site Description	
2.3 Driving Directions	2
3.0 Definitions	
3.1 Waters of the U.S.	
3.2 Wetlands	
3.3 Other Waters of the U.S	
4.0 Methods.	
4.1 Preliminary Review	
4.2 Field Survey Dates and Methods	
4.2.1 Vegetation	
4.2.2 Soils	
4.2.3 Hydrology	
4.3 Data Collection	
4.4 Mapping and Acreage Calculations	
5.0 Results	
5.1 Limitations to Survey	16
5.2 Overview of Site Conditions	16
5.3 Soils	
5.4 Vegetation Community Types	17
5.4.1 Developed	
5.4.2 Irrigated Pasture	
5.4.3 Valley Oak Woodland	18
5.4.4 Fresh Emergent Wetland	
5.4.5 Wetland Swale	
5.4.6 Open Water	
5.4.7 Riparian Wetland	
6.0 Citations	

Figures, Tables, Appendices, and Exhibits

Tables

Table 1. Sum	mary of Aquatic Resources in the Survey Area1
Figures	
Figure 2. Proj Figure 3. Proj Figure 4. Proj Figure 5. Nati Figure 6. Proj	ect Vicinity
Appendic	es and Exhibits
Appendix A Appendix B Appendix C Appendix D Appendix E Appendix F	National Resource Conservation Service Web Soil Survey Wetland Determination and Ordinary High Water Mark Data Forms Representative Photographs List of Vascular Plant Species Observed Aquatic Resources WETS Table
Exhibit A	Aquatic Resources Delineation Map

List of Acronyms

AWE Area West Environmental, Inc. **CFR** Code of Federal Regulations

CWA Clean Water Act facultative plants **FAC**

facultative upland plants **FACU** facultative wetland plants **FACW** USGS Hydrologic Unit Code HUC

Interstate

NAD83 North American Datum 1983 Natural Resources Conservation Service **NRCS**

National Oceanic and Atmospheric Administration NOAA

not listed

NWI National Wetland Inventory National Wetlands Plant List **NWPL** obligate wetland plants OBL ordinary high water mark **OHWM**

Preliminary Jurisdictional Determination PJD McDonald/Mack Minor Land Division Project Project

Project proponent Ms. Morgan McDonald Traditional Navigable Water **TNW UPL** obligate upland plants

U.S. Army Corps of Engineers **USACE USFWS** U.S. Fish and Wildlife Service

USGS U.S. Geological Survey Wetlands Climate Table **WETS**

WRCC Western Regional Climate Center Western Regional Monitoring Station **WRMS**

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1.0 SUMMARY OF FINDINGS

This report provides the results of an aquatic resources delineation study. The purpose of the study was to determine potential waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA) for the McDonald/Mack Minor Land Division Project (Project) located at 5460 King Road, Loomis, California. This delineation has been conducted following guidance in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). The ordinary high water mark (OHWM) of potential other waters of the U.S. was delineated following guidance in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b), and the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2010). This Preliminary Jurisdictional Determination (PJD) indicates that waters of the U.S., including wetlands, are present in the Project's survey boundaries (Survey Area). Acreages presented in this report are considered preliminary, subject to review by the USACE during the verification process. Implementation of the Project may require the Ms. Morgan McDonald (Project proponent) to obtain a Section 404 permit.

A total of 0.194 acre of aquatic resources were identified at the 5.117-acre Survey Area (Table 1 and Exhibit A), comprised of 0.133 acres of wetlands (fresh emergent wetland, wetland swale, and riparian wetland) and 0.061 acre of potential other waters of the U.S. (open water).

Table 1. Summary of Aquatic Resources in the Survey Area

Feature Type	Area (acres)	Length (feet)
Wetlands		
W-1	0.022	N/A
W-2	0.022	N/A
W-3	0.041	N/A
W-4	0.022	N/A
W-6	0.019	N/A
W-7	0.007	N/A
Wetlands Subtotal	0.133	N/A
Other Waters		
W-5	0.061	93
Other Waters Subtotal	0.061	93
Total	0.194	93

2.0 INTRODUCTION

Area West Environmental, Inc. (AWE) was retained by the Project proponent to conduct an aquatic resources delineation at 5460 King Road in the Town of Loomis, in Placer County, California and prepare a PJD report.

The Project is located in the Town of Loomis in Placer County approximately 23 miles northeast of Sacramento, California. The Survey Area is approximately 5.117 acres, and consists of one large parcel, which the Project proposes to split into multiple large lots.

2.1 Project Location

The Project is located in southern Placer County, California, in the unincorporated town of Loomis at 5460 King Road, Placer County, California, 95650 (Figure 1). Specifically, the Project is located on the Rocklin U.S. Geological Survey (USGS) 7.5-minute quadrangle topographic map in Section 9 of Townships 11 North, and Range 7 East. The approximate center coordinates of the site are Longitude -121.204654 east and Latitude 38.823688 north of the North American Datum 1983 (NAD83) datum (Figure 2).

2.2 Site Description

The Survey Area is used as a cattle pasture for grazing and is supplied with irrigation water through sprinklers during the summer. One residence is located on the eastern portion of the parcel, which is fully developed. The Survey Area transitions from a terrace landform in the east to a small drainage that flows south towards an unnamed creek, which is located approximately 500 feet southeast of the Project (Figure 3). The Survey Area consists of valley oak woodland and irrigated cattle pasture with scattered wetlands, mainly within or along drainages. A small grove of blue gum (*Eucalyptus globulus*) (--) is also present on site in the pasture. Surrounding land use consists of residential homes.

2.3 Driving Directions

From Interstate 80 (I-80) East in Sacramento: Continue on I-80 for 8.4 miles and then take exit 109 Sierra College Boulevard, and turn left (north) onto Sierra College Boulevard. Continue on Sierra College Boulevard for 2.0 miles and turn right onto King Road. Continue on King Road for 0.7 mile to 5460 King Road. The Project is located on the south side of King Road.



Figure 1. Project Vicinity

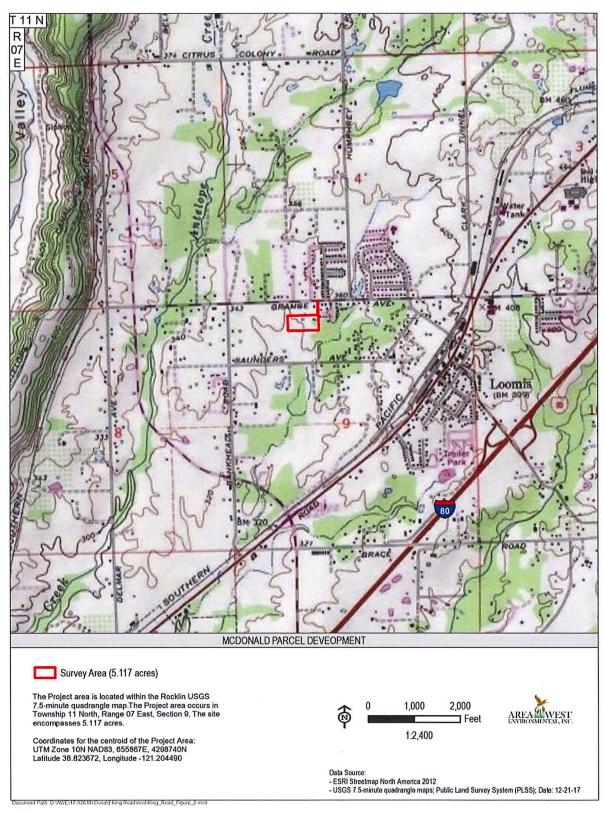


Figure 2. Project Location

Figure 3. Project Overview

3.0 DEFINITIONS

Certain terms used throughout this report have specific meanings that relate to the wetland delineation process, as specified by the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a). These terms are described briefly below.

3.1 Waters of the U.S.

"Waters of the U.S." is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Waters of the U.S. include "wetlands" and "other waters of the U.S." For regulatory purposes, wetlands are defined as:

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

3.2 Wetlands

Wetlands under USACE jurisdiction must have the following field indicators:

1. A prevalence of hydrophytic vegetation (i.e., "water loving" species with "obligate," "facultative wetland," or "facultative" wetland indicator status [Lichvar et al. 2016]);

Plant wetland indicator status from The National Wetland Plant List: 2016 Update of Wetland Ratings (NWPL) (Lichvar, et al. 2016) is abbreviated as follows:

- OBL = Obligate wetland plants. Almost always occur in wetlands.
- FACW = Facultative wetland plants. Usually occur in wetlands, but may occur in non-wetlands.
- FAC = Facultative plants. Occur in wetlands and non-wetlands.
- FACU = Facultative upland plants. Usually occur in non-wetlands, but may occur in wetlands.
- UPL = Obligate upland plants. Almost never occur in wetlands.
- For species not listed in the NWPL two dashes (--) are used to indicate their absence in the list. These species are assumed to be upland species.
- 2. Hydric soils (i.e., hydric soils listed by the U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] and unclassified soils that are formed

- under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part) (USACE 2008a); and
- 3. Wetland hydrology (evidence that episodes of inundation or soil saturation lasting more than a few days during the growing season have occurred repeatedly over a period of years and that the timing, duration, and frequency of wet conditions have been sufficient to produce a characteristic wetland plant community and hydric soil morphology).

In the Arid West Region, growing season dates are determined through onsite observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperatures. Season dates may be approximated by using Wetlands Climate Tables (WETS) available from NRCS National Water and Climate Center to determine the median dates of 28 degree F (-2.2 degree C) air temperatures in spring and fall based on long-term records gathered at the nearest appropriate National Weather Service meteorological station (USACE 2008a).

3.3 Other Waters of the U.S.

For this report, other waters of the U.S. refer to waterways and other water bodies with a defined bed and bank, such as drainages, ditches, creeks, rivers, and lakes. This translates to the bank-to-bank portion of water bodies, up to the OHWM. Other waters of the U.S. may lack hydrophytic vegetation and/or evidence of hydric soils.

In 33 CFR Part 329.1, the OHWM for non-tidal rivers is defined as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; and the presence of litter and debris. The OHWM for a stream is usually determined through an examination of the recent physical evidence of surface flow in the stream channel. In dry land fluvial systems typical of the desert areas, the most common physical characteristics indicating the OHWM for a channel usually include, but are not limited to, a clear, natural scour line impressed on the bank; recent bank erosion; destruction of native terrestrial vegetation; and the presence of litter and debris (USACE 2008b, 2010).

4.0 METHODS

Wetlands were delineated using the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a). An area must meet criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential wetland under USACE jurisdiction.

Water bodies that did not meet the wetland criteria were reviewed to determine if they met the definition of other waters of the U.S. (i.e., had evidence of an OHWM).

Specific details of the delineation methods are described below.

4.1 Preliminary Review

Before field surveys were conducted, the following information was reviewed:

- General topography was obtained from the *Rocklin*, California USGS 7.5-minute topographic quadrangle map (Figure 2).
- Soil information was obtained from the NRCS Web Soil Survey (NRCS 2017b) (Figure 4, Appendix A).
- Site hydrology was gathered from visual interpretations of aerial photographs and topography at a scale of 1 inch = 100 feet (Exhibit A).
- National Wetland Inventory (NWI) maps were reviewed (Figure 5) (U.S. Fish and Wildlife Service [USFWS] 2017).
- Regional hydrology was obtained from visual observations and aerial photographic evidence of hydrologic connections to Traditional Navigable Waters (TNW) (Figure 6).
- USGS Hydrologic Unit Code (HUC) data for California watershed boundaries (Figure 7).

4.2 Field Survey Dates and Methods

Wetland delineation fieldwork was conducted by AWE biologist Patrick Martin on December 15, 2017. The purpose of the fieldwork was to gather data on the vegetation, soils, and hydrology of the site to determine what areas met the USACE three mandatory criteria for wetlands (i.e., exhibited positive indicators of wetland vegetation, soils, and hydrology).

4.2.1 Vegetation

Vegetation within potential waters of the U.S. was recorded on Wetland Determination Data Forms (Arid West Region, Version 2) which are provided in Appendix B. Plant species not readily identifiable in the field were determined based on the *Jepson Manual: Vascular Plants of*

a) Cond d Mark Danalonmont

Figure 5. National Wetlands Inventory

McDonald/Mack Development Placer County, California



Figure 6. Project Distance to Traditional Navigable Water

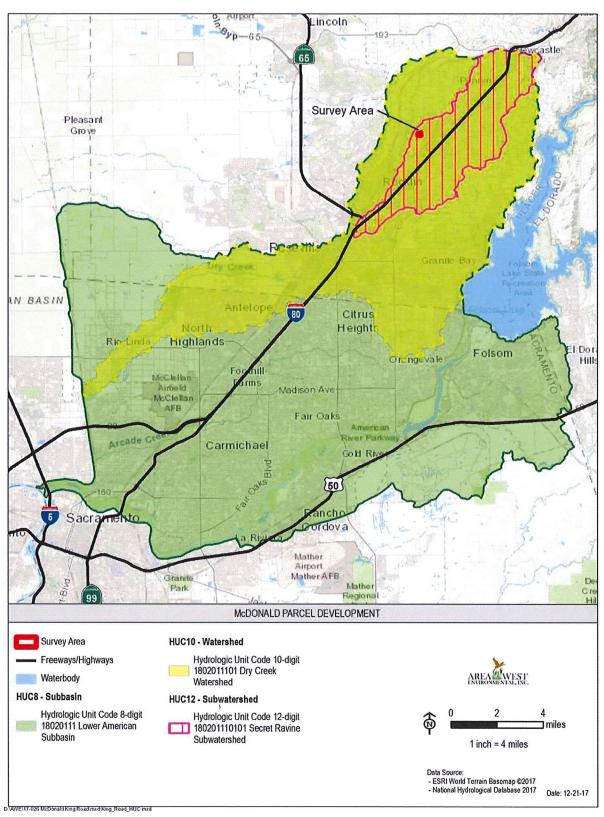


Figure 7. Project Hydrologic Unit

California (Second Edition) (Baldwin et al. 2012). The prevalence of hydrophytic vegetation was determined using USACE methods. The wetland indicator status of plant species was based on *The National Wetland Plant List: 2016* (Lichvar et al. 2016).

The wetland vegetation criterion was considered met when more than 50 percent of the dominant plant species across all strata were rated OBL, FACW, or FAC or if the aerial cover of hydrophytic plant species resulted in a prevalence rating of 3.0 or less. The USACE defines "dominant" plant species as those with at least 20 percent coverage of the total canopy. The USACE defines an area to be vegetated if it has 5 percent or more total plant cover at the peak of the growing season. Those sites supporting either a dominance or prevalence of hydrophytes were further examined for indicators of wetland hydrology and hydric soils.

4.2.2 Soils

Soil texture, matrix and mottle colors, and the presence of subsoil layers impervious to water infiltration were documented from hand-excavated soil pits. Soil pits were excavated up to 15 inches, where possible. Soil pits not excavated to this depth encountered restrictions to hand excavations such as dry, hard soil conditions; rock or concrete. Soils were examined for positive hydric soil indicators such as low chromas, mottles, histic epipedons, organic layers, manganese concretions, gleization, and sulfidic odor. The color and texture of the soil layers encountered were recorded. Soil color was determined from moist soil peds using *Munsell Soil Color Charts* (Munsell 2009). Alphanumeric soil descriptions provided on the field data forms are based on those in the Munsell soil color charts.

Paired upland and wetland soil pits were evaluated in order to determine and delineate an abrupt wetland/upland boundary. Hydric soil assessments were predominately based on the guidance provided in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual:* Arid West Region (Version 2.0) (USACE 2008a) and the Field Indicators of Hydric Soils in the U.S., Version 8.1 (NRCS 2017a). Supplemental soil information for the regional area was also evaluated from the Web Soil Survey (NRCS 2017b). Specific pit depths, soil color/texture, and other soil data obtained at each soil sample location are provided on the data forms found within Appendix B.

4.2.3 Hydrology

Areas supporting a prevalence of hydrophytic vegetation and hydric soils were further evaluated for indicators of wetland hydrology. Hydrology information was determined through field observations in order to determine the presence/absence of primary and/or secondary hydrological indicators (i.e., surface water, saturation, sediment debris, drift deposits, watermarks, soil cracks, oxidized root channels, biotic crusts, salt crusts, or other hydrologic indicators). Wetland hydrology was also determined based on the presence of ponding (inundation) or saturation, aerial photographic signature, landscape positions, or the presence of other field indicators such as scour marks.

The site was also surveyed for water bodies (e.g., streams and ponds). A "water body" is defined as any area that in a normal year has water flowing or standing above ground to the extent that evidence of an OHWM is established (Federal Register Volume 67, Number 10, Tuesday

January 15, 2002). Water bodies are not required to be dominated by hydrophytic vegetation or to have positive hydric soil indicators to be considered USACE-jurisdictional.

4.3 Data Collection

Data was collected on the vegetation communities within the Survey Area, categorized by the dominant vegetation. A total of 12 data points were collected to document wetlands and uplands, and two data points were collected to document other waters of the U.S. (Appendix B). Drainages exhibiting an OHWM were further characterized using forms provided in the *Updated Datasheet for Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010) (Appendix B). Representative photographs of the site and the aquatic features are provided in Appendix C.

The Survey Area consists of the following vegetation community types: developed, irrigated pasture, valley oak woodland, fresh emergent wetland, wetland swale, riparian wetland, and open water (cattle pond). Two paired data points were collected to document wetland and upland boundaries for the mapped wetland features. A single data point was collected to document other waters of the U.S.

4.4 Mapping and Acreage Calculations

The boundaries of potential wetland features were recorded using a handheld Trimble GeoXT Global Positioning System unit with sub-meter accuracy. Data was collected in latitude/longitude in the NAD83 datum. Acreages for these features within the Survey Area were calculated using polygon size in ArcView Geographic Information System.

5.0 RESULTS

A total of 0.194 acre of potential waters of the U.S. were identified in the 5.117-acre Survey Area. There were 0.133 acre of potential wetlands, and 0.061 acre of potential other waters of the U.S. identified (Exhibit A). Vegetation communities in the Survey Area are discussed further in Section 5.4.

Acreages and USACE-jurisdictional boundaries are preliminary and subject to review and modification by the USACE. Data forms are included in Appendix B. Representative photographs are provided in Appendix C. A list of vascular plant species observed in the Survey Area is included in Appendix D. An aquatic resources table for all of the documented waters of the U.S. is included in Appendix E.

5.1 Limitations to Survey

Limitations to this survey included:

1) Survey date was outside of the bloom period for many common wetland plants. The delineation was conducted towards the beginning of the growing season, so much of the herbaceous cover was immature and difficult to identify. Sufficient vegetation, however, was identifiable to determine feature boundaries and types.

5.2 Overview of Site Conditions

The Survey Area is located in Placer County with elevations ranging from approximately 330 to 350 feet above mean sea level.

No waters of the U.S. within the Survey Area boundaries were identified in the NWI (Figure 5).

Climate details for the Survey Area are based on historical data collected by the Western Regional Climate Center (WRCC) at the Auburn monitoring station located approximately 8.5 miles northeast of the Survey Area. Temperatures range from an average high temperature of 93.2 degrees Fahrenheit (°F) in July to an average low of 36.2 °F in January according to the WRCC (NOAA 2017). The average annual high temperature in the Survey Area is approximately 72.8 °F. The Survey Area receives an average of approximately 34.14 inches of annual precipitation (rain) from October through May. Prior to the survey date on December 15, 2017, 6.60 inches of rain had fallen in the region between October 1st and December 15th (NOAA 2017) (Appendix F).

During rain events, water flows from uplands in the surrounding hills, across the Survey Area, and then south and west to an unnamed drainage that drains into Secret Ravine approximately 4.56 miles southwest of the Survey Area (Figure 6). Secret Ravine flows southwest for another 2.58 miles, to its confluence with Dry Creek, which flows 15.97 miles southwest to Steelhead Creek. Steelhead Creek flows for another 6.81 miles and is tributary to the Sacramento River, a TNW. The Survey Area is located within the northeastern portion of the HUC 8-digit Lower American subbasin (HUC 18020111) (Figure 7).

5.3 Soils

One soil map unit, Andregg coarse sandy loam, 2 to 9 percent slopes (106), is present within the Survey Area (Figure 4). The soil unit present in the Survey Area is described in detail in the NRCS Web Soil Survey, including landform position, horizon textures, depth to restrictive layer, and drainage class (Appendix A). This soil map unit is listed in the National Hydric Soil List (NRCS 2017c). No other soil map units are present in the Survey Area.

5.4 Vegetation Community Types

A total of seven vegetation community types were identified at the Survey Area, including:

- developed;
- irrigated pasture;
- valley oak woodland;
- fresh emergent wetland;
- wetland swale;
- open water (cattle pond); and
- riparian wetland.

The boundaries of the vegetation communities determined to be USACE-jurisdictional are mapped in Exhibit A, and the following sections describe each community observed at the Survey Area.

5.4.1 Developed

The developed vegetation community consists of a landscaped yard and includes a private residence, roadways and road shoulders. This developed community is situated within the upland areas of the Survey Area. Roads consist of a paved surface that leads from King Road to the private residence. The private residence is located in the northeastern corner of the Survey Area, and consists of a paved and dirt driveway and a landscaped yard with ornamental trees and shrubs.

Vegetation. Vegetation within the developed community consists of ornamental trees and shrubs such as silver maple (*Acer saccharinum*) (FAC), pin oak (*Quercus palustris*) (--), California fan palm (*Washingtonia filifera*) (FAC), and interior live oak (*Quercus wislizeni*) (--). The dominant herbaceous species includes Bermuda grass (*Cynodon dactylon*) (FACU) and Kentucky blue grass (*Poa pratensis*) (FAC). The private residence is dominated by upland grasses, which are regularly mowed for landscaping.

Soils. Due to the dominance and prevalence of upland vegetation in this community, soils were not examined for indicators of hydric soils.

Hydrology. No indicators of wetland hydrology were observed in this community.

Justification for Non-jurisdictional Status. The three mandatory wetland criteria were not met in this community; there is a dominance of upland vegetation and lack of wetland hydrology indicators. Therefore, this community is not a wetland, and is not USACE-jurisdictional.

5.4.2 Irrigated Pasture

Irrigated pasture is the dominant community at the Survey Area, and consists primarily of non-native grasses and forbs with intermittent trees such as valley oak (*Quercus lobata*) (FACU), foothill pine (*Pinus sabiniana*) (--) and blue gum scattered throughout the pasture. The pasture is irrigated by a network of pipes and sprinklers. Per communication with the property owner, irrigation occurs during the summer and fall seasons to provide forage for cattle. Irrigated pasture occurs throughout the Survey Area and is characteristic of upland conditions, with the majority of the community used for cattle grazing.

Data Points 2, 4, 6, 10, 11 and 12 in Appendix B are representative of the vegetation, soils, and hydrologic indicators of irrigated pasture.

Vegetation. Vegetation in this community is mostly herbaceous with occasional scattered valley oak trees, foothill pine trees, and blue gum trees. Typical plant species in this community include dallisgrass (*Paspalum dilatatum*) (FAC), common smartweed (*Persicaria hydropiper*) (OBL), Bermuda grass, Himalayan blackberry (*Rubus armeniacus*) (FAC), and Fremont cottonwood (*Populus fremontii*) (FAC) saplings. Although the community is dominated by upland species, occasional hydrophytes are present near the margins of wetlands, and bases of mounds of disturbed soil near ranching infrastructure (e.g., fence posts, gates, and driveways). Common smartweed, an obligate wetland plant, was only dominant in one location of the irrigated pasture along a fence, at Data Point 12, which fulfilled a dominance of hydrophytes. Data Point 2 also fulfilled wetland vegetation criteria.

Soils. Soil at Data Points 2, 4, 6 and 10 exhibited a low chroma of 1 in unmottled soil, which is indicative of hydric soil conditions (Environmental Laboratory 1987). Data Points 11 and 12 did not exhibit any hydric soil indicators (Appendix B).

Hydrology. No indicators of wetland hydrology were observed in this community.

Justification for Non-jurisdictional Status. Irrigated pasture represents an upland community dominated by upland herbaceous species and a dominance of hydrophytes at Data Points 2 and 12. Although some of the data points within this community exhibited wetland indicators (e.g., a hydric soil indicator or a dominance of hydrophytic vegetation), none of the data points within this community showed all three mandatory wetland criteria. Therefore, this community is not a wetland, and is not USACE-jurisdictional.

5.4.3 Valley Oak Woodland

Valley oak woodland occurs in a small area on the western portion of the Survey Area, is contiguous with surrounding oak woodlands and abuts residential communities surrounding the

Survey Area. This community is dominated by a mix of oak trees with an understory that is consistent with the irrigated pasture community (Section 5.4.2) and is regularly grazed by cattle.

Data Point 7 in Appendix B is representative of the vegetation, soils, and hydrologic indicators of valley oak woodland community.

Vegetation. The overstory of this community consists of valley oaks, with some interior live oak, blue oak (*Quercus douglasii*) (--) and California walnut (*Juglans californica*) (FACU) also filling out the canopy cover. The understory contains vegetation consistent with the irrigated pasture although with fewer hydrophytes. The understory consists of bristly dogtail grass (*Cynosurus echinatus*) (--), Crane's bill geranium (*Geranium molle*) (--), Italian thistle (*Carduus pycnocephalus*) (--), and ripgut brome (*Bromus diandrus*) (--).

Soils. Soil in this community exhibited a low chroma of 1 in unmottled soil, which is indicative of hydric soil conditions (Environmental Laboratory 1987).

Hydrology. No indicators of wetland hydrology were observed in this community.

Justification for Non-jurisdictional Status. The three mandatory wetland criteria were not met in this community; there is a dominance of upland vegetation and lack of wetland hydrology indicators at the representative data point. Therefore, this community is not a wetland, and is not USACE-jurisdictional.

5.4.4 Fresh Emergent Wetland

This community occurs in the margins of a cattle pond in the southwestern portion of the Survey Area (Exhibit A). Fresh emergent wetland (W-4) remains inundated for long enough durations to support a dominance of hydrophytic vegetation, including obligate wetland plants and the formation of hydric soils. This aquatic feature is located in the Survey Area between open water (which is devoid of vegetation) and the irrigated pasture, which represents uplands. The boundaries of the fresh emergent wetland may fluctuate due to the ephemeral nature of the streams that feed the cattle pond and vegetation removal from the pond. The fresh emergent wetland fringe around the cattle pond is periodically removed from the pond as evidenced by a pile of emergent wetland vegetation and soil observed during the delineation survey. Fresh emergent wetland vegetation is also grazed by the cattle.

Data Point 3 in Appendix B is representative of the vegetation, soils, and hydrologic indicators of the fresh emergent wetland community.

Vegetation. Vegetation in this community is entirely herbaceous and dominated by hydrophytes. Plants in this community include bulrush (*Schoenoplectus* spp.) (OBL), dallisgrass, tall flatsedge (*Cyperus eragrostis*) (FACW), and duckweed (*Lemna* spp.) (OBL).

Soils. At Data Point 3 the hydric soil indicator Depleted Matrix (F3) was observed with prominent redox concentrations present in the matrix and along pore linings of living root channels.

Hydrology. At Data Point 3, Surface Water (A1), a High Water Table (A2), Saturation (A3), and the Presence of Oxidized Rhizospheres along Living Roots (C3) were observed.

Justification for Jurisdictional Status. Based on the prevalence of hydrophytic vegetation, hydric soil indictors, and indicators of wetland hydrology, this community meets the three mandatory wetland criteria. Therefore, this community is considered a wetland, and is USACE-jurisdictional.

5.4.5 Wetland Swale

This vegetation community occurs along the toe of gentle hillslopes within the Survey Area, and primarily conveys water during and immediately after storm events towards the unnamed drainage south of the Survey Area. Wetland swale (W-6) is located in a 100-year floodplain. Wetland swale (W-3) abuts the fresh emergent wetland fringe (W-4) located around the cattle pond, open water (W-5), which continues to drain south to an unnamed drainage. In the Survey Area, wetland swales are slowly draining features that meet all three wetland criteria to qualify as wetlands, but do not support an OHWM to qualify as other waters of the U.S. (Exhibit A).

Data Points 1 and 5 in Appendix B are representative of the vegetation, soils, and hydrologic indicators of wetland swale community.

Vegetation. This community is dominated by herbaceous hydrophytes. Typical plant species for wetland swales include dallisgrass, floating water primrose (*Ludwigia peploides*) (OBL), and field sedge (*Carex praegracilis*) (FACW). Himalayan blackberry was also present at Data Point 1.

Soils. A Redox Dark Surface (F6) was observed at Data Point 1 with prominent redox concentrations in the matrix. Data Point 5 exhibited a low chroma of 1 in unmottled soil, which is indicative of hydric soil conditions (Environmental Laboratory 1987).

Hydrology. Indicators of wetland hydrology included: Saturation (A3), Water-stained Leaves (B9), and Drainage Pattern (B10). Drainage patterns were evidenced by bent vegetation and eroded soil between vegetation, but water does not flow fast enough through this community to result in an observable change in total vegetation cover. Vegetation at both Data Points 1 and 5 also fulfilled the FAC-Neutral Test (D5).

Justification for Jurisdictional Status. Based on the presence of hydrophytic vegetation, hydric soil indictors, and indicators of wetland hydrology, this community meets the three mandatory wetland criteria. Therefore, this community is considered a wetland and is USACE-jurisdictional.

5.4.6 Open Water

Open water in the Survey Area consists of a water impoundment with culverts at the confluence of two ephemeral streams that support wetlands. Historically, these two ephemeral streams (W-1 and W-2), which represent riparian wetland, would have drained through the area now represented as open water (W-5). This community functions as a cattle pond and drains to the

southwest through two culverts to riparian wetland W-7 and to an unnamed drainage. Wetlands were not present in the open water during the site visit on December 15, 2017. Vegetation is likely removed from the pond to maintain capacity of the pond for cattle and irrigation purposes. Two ephemeral streams that supply the cattle pond with water support wetlands in addition to the fresh emergent wetland (W-4, Section 5.4.4) that occur on the fringe of the cattle pond.

Data Point 3 and OHWM Data Sheet 3 in Appendix B is representative of the vegetation, soils, and hydrologic indicators of this open water community.

Vegetation. Plants in this community, when present, consist of hydrophytes with less than five percent vegetation cover. Species in this community type include mostly duckweed, but bulrush and tall flatsedge are also present.

Soils. Soils were not sampled in the open water community because of the steep bank of the pond. Soils are assumed the same as Data Point 3, which fulfilled hydric soil indicator Depleted Matrix (F2) and was observed with prominent redox concentrations in the matrix and along pore linings of living root channels.

Hydrology. Hydrologic indicators observed in this community included Surface Water (A1) (estimated at seven feet deep), High Water Table (A2), and Saturation (A3). The OHWM was characterized by abrupt break in bank slope and a change in vegetation cover (lack of vegetation).

Justification for Jurisdictional Status. Open water is assumed to contain hydric soils and display indicators of wetland hydrology. Open water does not contain a minimum of five percent hydrophytic plant cover, and does not meet the three mandatory wetland criteria. Open water does exhibit an OWHM, is a natural drainage, and therefore is considered an other waters of the U.S. This community is USACE-jurisdictional.

5.4.7 Riparian Wetland

Riparian wetland consists of two ephemeral streams that run across the western portion of the Survey Area in a north to south direction (Exhibit A). Riparian wetland (W-2) is dominated by herbaceous riparian wetland species. The stream originates north of the Survey Area, and it drains the surrounding hillslopes through the Survey Area to the cattle pond. Riparian wetland (W-1) consists of a sparse layer of herbaceous riparian wetland vegetation, but also support riparian trees and shrubs such as Goodding's black willow (Salix gooddingii) (FACW), Fremont cottonwood, and Himalayan blackberry. Riparian wetland (W-1) also drains to the cattle pond, which is likely the confluence of these two streams. Riparian wetland (W-1) appears to originate on the Survey Area and is a deeply incised feature with exposed roots and trunks of riparian trees. Both streams flow to the pond via culverts. The cattle pond drains through riparian wetland (W-7), which is consistent with conditions at riparian wetland (W-2). Riparian wetland (W-7) drains to an unnamed drainage south of the Survey Area, which is tributary to Secret Ravine.

Data Points 8, 9 and OHWM Data Sheets 1 and 2 are representative of the vegetation, soils, and hydrologic indicators of the riparian wetland community.

Vegetation. Vegetation in this community is dominated by herbaceous hydrophytes including dallisgrass, smartweed, and fiddle dock (*Rumex pulcher*) (FAC). Trees occur in this community only at Data Point 8, and include Fremont cottonwood and Goodding's black willow. The vine stratum is also present and is dominated by Himalayan blackberry. Other plant species in this community include tall flatsedge, field sedge, English plantain (*Plantago lanceolata*) (FAC), and crane's bill geranium.

Soils. A Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) were observed at Data Point 8 and Data Point 9 respectively. The Depleted Matrix (F3) at Data Point 9 showed prominent redox concentrations in the matrix and along the pore linings of living root channels.

Hydrology. Surface Water (A1), Saturated Soil (A3), Surface Soil Cracks (B6), and the presence of Oxidized Rhizospheres along Living Roots (C3) were observed within this community. Secondary wetland hydrology indicators detected include Drift Deposits (B3) and Drainage Pattern (B10) in a riverine setting. An OHWM was observed by the presence of an eroded bank as well as an abrupt change in vegetation from upland vegetation to hydrophytes. Riparian wetland (W-1) had more coarse soil than the surrounding landscape and riparian wetland (W-2) had a higher clay content in the soil than the surrounding landscape.

Justification for Jurisdictional Status. Based on the presence of hydrophytic vegetation, indicators of hydric soil, and indicators of wetland hydrology, this community meets the three mandatory wetland criteria. Therefore, this community is considered a wetland and is USACE-jurisdictional.

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Appendix A. National Resource Conservation Service Web Soil Survey



Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for **Placer County,** California, Western **Part**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	
Soil Map	
Legend	10
Map Unit Legend	
Map Unit Descriptions	11
Placer County, California, Western Part	13
106—Andregg coarse sandy loam, 2 to 9 percent slopes	13
References	15

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

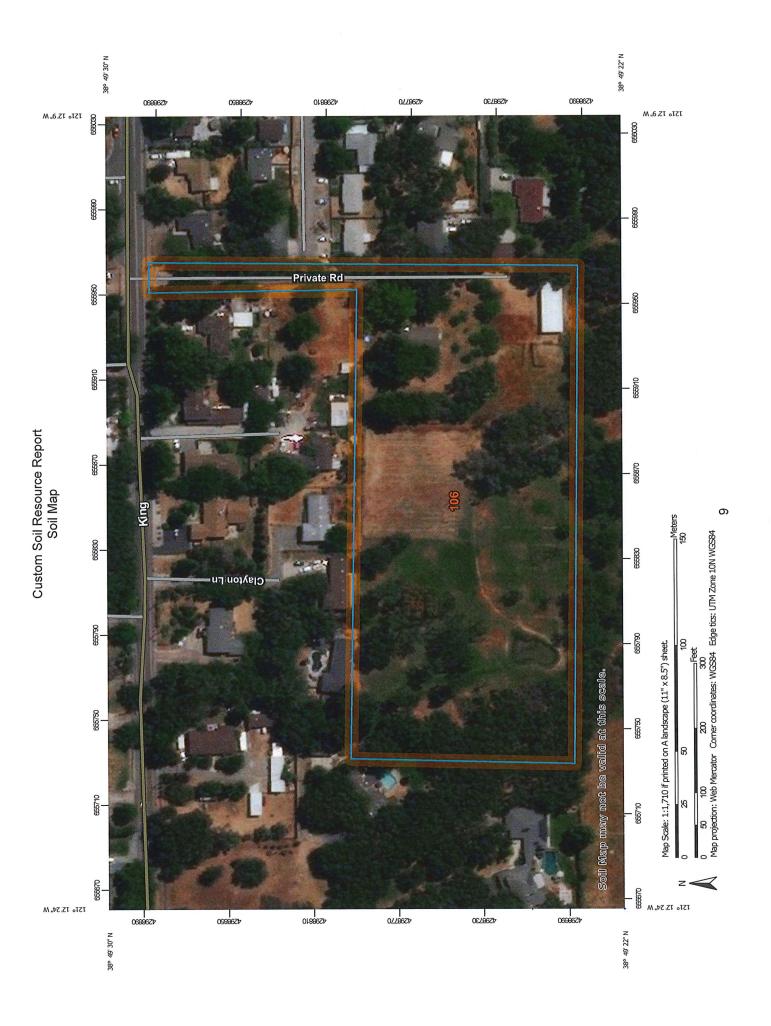
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



This product is generated from the USDA-NRCS certified data as contrasting soils that could have been shown at a more detailed Maps from the Web Soil Survey are based on the Web Mercator distance and area. A projection that preserves area, such as the Date(s) aerial images were photographed: May 3, 2015—Sep misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of The orthophoto or other base map on which the soil lines were Enlargement of maps beyond the scale of mapping can cause projection, which preserves direction and shape but distorts compiled and digitized probably differs from the background Soil map units are labeled (as space allows) for map scales Placer County, California, Western Part Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Albers equal-area conic projection, should be used if more imagery displayed on these maps. As a result, some minor The soil surveys that comprise your AOI were mapped at Please rely on the bar scale on each map sheet for map accurate calculations of distance or area are required. Coordinate System: Web Mercator (EPSG:3857) MAP INFORMATION Warning: Soil Map may not be valid at this scale. Survey Area Data: Version 9, Sep 13, 2017 of the version date(s) listed below. Soil Survey Area: 1:50,000 or larger. measurements. 1:24,000. 29, 2016 Special Line Features Streams and Canals Interstate Highways Aerial Photography Very Stony Spot Major Roads Local Roads Stony Spot Spoil Area **US Routes** Wet Spot Other Rails **Nater Features Transportation** Background MAP LEGEND 8 40 1 Soil Map Unit Polygons Severely Eroded Spot Area of Interest (AOI) Soil Map Unit Points Miscellaneous Water Soil Map Unit Lines Closed Depression Marsh or swamp Perennial Water Mine or Quarry Special Point Features Rock Outcrop **Gravelly Spot** Slide or Slip Sandy Spot Saline Spot **Borrow Pit Gravel Pit** Lava Flow Sodic Spot Clay Spot Area of Interest (AOI) Sinkhole Blowout Landfill 9 0 Soils

shifting of map unit boundaries may be evident.

Map Unit Legend

		1	
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
106	Andregg coarse sandy loam, 2 to 9 percent slopes	6.4	100.0%
Totals for Area of Interest		6.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Placer County, California, Western Part

106—Andregg coarse sandy loam, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hfyf Elevation: 200 to 1,500 feet

Mean annual precipitation: 12 to 35 inches Mean annual air temperature: 61 degrees F

Frost-free period: 200 to 270 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Andregg and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Andregg

Setting

Landform: Hills

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 15 inches: coarse sandy loam H2 - 15 to 29 inches: coarse sandy loam H3 - 29 to 33 inches: weathered bedrock

Properties and qualities

Slope: 2 to 9 percent

Depth to restrictive feature: 29 to 33 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately

low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 3.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: Shallow Thermic Foothills 18-25 PZ (F018XI200CA)

Hydric soil rating: No

Minor Components

Caperton

Percent of map unit: 5 percent

Hydric soil rating: No

Custom Soil Resource Report

Sierra

Percent of map unit: 5 percent Hydric soil rating: No

Unnamed, mod deep

Percent of map unit: 4 percent Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent Landform: Drainageways Hydric soil rating: Yes

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Appendix B.
Wetland Determination and Ordinary High Water Mark
Data Forms

Project/Site: McDonal Parcel Development/5460 King Road City	/County: Loomis/Placer Sampling Date: 2017-12-15
	State: CA Sampling Point:
Investigator(s): Patrick Martin Sec	•
	cal relief (concave, convex, none): Con Courte Slope (%):
Subregion (LRR): C Lat: 38.8	23889 Long: -121.254934 Datum: NAD83
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2 to 9 percel	nt slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are VegetationN, SoilN, or Hydrology _N significantly dist	urbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally proble	
SUMMARY OF FINDINGS - Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks: This data count documents 6 56	asonal wetland suche that,
drawns to the south. It originates in	which is too being to the Sacromento
aiver, a TNW.	which is full-by to the secondulate
VEGETATION - Use scientific names of plants.	
	ominant Indicator Dominance Test worksheet:
1	pecies? Status Number of Dominant Species 3 (A)
2.	Total Number of Dominant
3	Species Across All Strata: (B)
4	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	Total Cover That Are OBL, FACW, or FAC: 160 (A/B)
1.	Prevalence Index worksheet:
2	Total % Cover of: Multiply by:
3.	OBL species x1=
5. And Anna County of the Anna C	FACW species x 2 =
	Total Cover FACU species x4 =
Herb Stratum (Plotaize: 30x)	UDI aposise V.6.
1. Yuspalen dilatatum 40	Y FAC Column Totals: (A) (B)
2. Ludwigla proloides 17	N FORW Prevalence Index = B/A =
4. Curens Eraguastis 8	N FACW Hydrophytic Vegetation Indicators:
5. Typha spr. 5	N OBL Y Dominance Test is >50%
6.	Prevalence Index is ≤3.0¹
7.	NIA-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8	PA Problematic Hydrophytic Vegetation (Explain)
50 41.5 20 /6.6 83 = Woody Vine Stratum (Plot size:)	Total Cover
1. Rushed Garmen in the S	FAC Indicators of hydric soil and wetland hydrology must
2.	be present, unless disturbed or problematic.
10 =	Total Cover Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic Crus	vegetation Present? YesNo
Remarks:	
Dominated entirely by	Agrabadit?

-	-	
	f N	18
J	u	_

Sampling	Point:	}	

Depth	<u>Matrix</u>			dox Features	<u> </u>	Loc ²	7		Damada	
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	_LOC_	Texture		Remarks	•
0-6		100	AA					movey.		SANTO-TURAMENTA MARINE DIRECTOR SANTON
6-14	10/18 3/1	50	57R 4/10	2 10		<u>M</u>	<u> </u>	NOONE CO	W51	no organ
	7,5 yr 3/2	40			bear.		51	More los	25.25	no organi
						W. 12 ²				
						-	* ***		,	
						- 400	LANCE			
	•						A			
	*				-					
	oncentration, D=Depl					d Sand G		cation: PL=Por		
-	Indicators: (Applica	able to all I			ea.)			s for Problema	•	c Solis":
Histosol			Sandy Re		Ju.			Muck (A9) (LRF		
	oipedon (A2) stic (A3)		- Table 1	Matrix (S6) ucky Mineral				Muck (A10) (LR ced Vertic (F18)		Same :
	n Sulfide (A4)			leyed Matrix		4		Parent Material (
	d Layers (A5) (LRR C	3)		Matrix (F3)	V -/			r (Explain in Rer		
	ick (A9) (LRR D)	•	Redox D		F6)					
	d Below Dark Surface	∋ (A11)		Dark Surfac			4			
	ark Surface (A12)			epressions (F	F8)			s of hydrophytic	-	
	Mucky Mineral (S1) Bleyed Matrix (S4)		Vernal Po	ools (F9)				d hydrology mus disturbed or pro		
	Layer (if present):						unicss	disturbed of pro	Diematic.	.
Type:										
* * **	ches): N/A		- Carrier Contract Co				Hydric So	il Present? Y	'es	No
i veimanto. D		ъ.								
¥ 1	Banin ent	reco	k concent	sno dar	in	the o	nety	inal	center	- Mat
13 ar	rominent	reco . 4 1	ix concent	rations Lick au	in s	he i	natrix with	in a l	Hop	- What 8 inches
is gr	eater than	reco 41	ix concent inches the Rabox Do	rations Lick and Mc Sur	nd stace	(Len) surf2	natrix with hydric	in a lin soil ind	ceyer Host icat	- Unat 8 inches or.
is gr	rominent cater than sil fulfills	reco 41	hehes H Rebox Do	rations Lick au urk Sur	nd stace	(=0)	retrix with hydric	in a lind soil and	the icat	What 8 inches or,
of se	eater then	the	k concentinels the Madox Do	rahions Lick au Ick Sur	nd st	(FW)	netry with hydric	in the soil and	top	8 inches
YDROLO	eater then	the	k concent nehes the Redox Da	rahions Lick au urk Sur	nd st	CEM)	netry with hydric	in a line soil and	cuper HDI i cat	Mat 8 inches of,
YDROLO	eater them oil fulfills GY	the			nd st	Me 1 morts (FW)		in a line soil ind		
YDROLO Vetland Hy Primary India	cater Man. il £1£ills GY drology Indicators:	the	i; check all that a		nd st	(FW)	Seco		s (2 or m	ore required)
YDROLO Vetland Hy Primary India Surface	cater Man Sil Exitilis GY drology indicators: cators (minimum of o	the	i; check all that a	(ylge	nd st	(F6)	Secondary Secondary	ondary Indicator	s (2 or me	ore required)
YDROLO Vetland Hy Primary India Surface High Wa	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2)	the	i; check all that an Salt Cru Biotic C	opty) est (B11)		Me 1 CEG)	Seco	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E	s (2 or mo 1) (River sits (B2) (33) (Rive	ore required) ine) (Riverine)
YDROLO Vetland Hy Primary India Surface High Wa Saturati	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2)	the ne required	i; check all that an Salt Cru Biotic C Aquatic	oply) est (B11) rust (B12)	s (B13)	Me 1 20+5 (F6)	Seco	ondary Indicator Water Marks (B Sediment Depo:	s (2 or mo 1) (River sits (B2) (33) (Rive	ore required) ine) (Riverine)
YDROLO Vetland Hy Primary India Surface High Water N Sedime	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) draks (B1) (Nonriveriant Deposits (B2) (Nor	ne required	i; check all that al Salt Cru Biotic C Aquatic Hydrog	oply) est (B11) rust (B12) Invertebrate en Sulfide Od d Rhizosphe	s (B13) dor (C1) res along	Living Ro	Secondary Second	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa	s (2 or me 1) (River sits (B2) (33) (Rive ns (B10) ter Table	ore required) Ine) (Riverine) rine)
YDROLO Vetland Hy Primary India Surface High Water M Sedimei Drift De	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriver int Deposits (B2) (Non posits (B3) (Nonriver)	ne required	i; check all that al Salt Cru Biotic C Aquatic Hydrogo Oxidize Presence	opty) est (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizosphe ee of Reduce	s (B13) dor (C1) res along ed Iron (C4	Living Ro	Secondary Second	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Órainage Patter Dry-Season Wa Crayfish Burrow	s (2 or m 1) (River sits (B2) (33) (Rive ns (B10) ter Table rs (C8)	ore required) ine) (Riverine) rine)
YDROLO Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift Dej Surface	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriver int Deposits (B2) (Nor posits (B3) (Nonriver Soil Cracks (B6)	ne required	i; check all that an Salt Cru Biotic C Aquatic Hydrog Oxidize Present	epty) est (B11) rust (B12) Invertebrate en Sulfide Od d Rhizosphe de of Reduce	s (B13) dor (C1) res along ed Iron (C4 on in Tille	Living Ro	Seccion Seccio	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib	s (2 or mi 1) (River sits (B2) 33) (Rive ns (B10) ter Table s (C8)	ore required) ine) (Riverine) rine)
YDROLO Vetland Hy Primary India Surface High Water M Sedimer Drift Der Surface Inundati	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonriverint Deposits (B6)) on Visible on Aerial In	ne required	i; check all that an Salt Cru Biotic C Aquatic Hydrogo Oxidize Preseno Recent	epty) st (B11) rust (B12) Invertebrate an Sulfide Od d Rhizosphe ce of Reduce Iron Reduction	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7)	Living Ro	Section 1	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar	s (2 or mi 1) (River sits (B2) (33) (Rive ns (B10) ter Table ss (C8) le on Aer d (D3)	ore required) ine) (Riverine) rine)
YDROLO Vetland Hy Primary India Surface Fligh Wa Saturati Water N Sedime Drift De Surface Inundati Water-S	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonriverint Deposits (B6) on Visible on Aerial Installed Leaves (B9)	ne required	i; check all that an Salt Cru Biotic C Aquatic Hydrogo Oxidize Preseno Recent	epty) est (B11) rust (B12) Invertebrate en Sulfide Od d Rhizosphe de of Reduce	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7)	Living Ro	Section 1	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib	s (2 or mi 1) (River sits (B2) (33) (Rive ns (B10) ter Table ss (C8) le on Aer d (D3)	ore required) ine) (Riverine) rine)
YDROLO Netland Hy Primary India Surface High Water M Sedimei Drift De Surface Inundati Water-S Field Obser	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonriverint Deposits (B6) on Visible on Aerial Installed Leaves (B9) vations:	ne required ine) nriverine) rine) magery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu	epty) rust (B11) rust (B12) Invertebrate an Sulfide Od d Rhizosphe ce of Reduce iron Reduction ick Surface (Explain in Re	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro i) d Soils (C	Section 1	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar	s (2 or mi 1) (River sits (B2) (33) (Rive ns (B10) ter Table ss (C8) le on Aer d (D3)	ore required) ine) (Riverine) rine)
YDROLO Netland Hy Primary India Surface High Water N Sedimer Drift Der Surface Inundati Water-S Field Obser	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriveri nt Deposits (B2) (Nor posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In Stained Leaves (B9) vations: eer Present?	ne required ine) iniverine) inagery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu Other (I	epty) rust (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re	s (B13) dor (C1) res along ed Iron (C4 on in Tille C7) emarks)	Living Ro	Section 1	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar	s (2 or mi 1) (River sits (B2) (33) (Rive ns (B10) ter Table ss (C8) le on Aer d (D3)	ore required) Ine) (Riverine)
YDROLO Vetland Hy Primary India Surface High Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Water Table	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriveri nt Deposits (B2) (Nor posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In Stained Leaves (B9) vations: eer Present?	ne required ine) iniverine) inagery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu Other (I	epty) rust (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re	s (B13) dor (C1) res along ed Iron (C4 on in Tille C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (Rive ns (B10) ter Table rs (C8) le on Aer d (D3) st (D5)	ore required) ine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Netland Hy Primary India Surface High Water No Sedimer Drift Der Surface Inundati Water-S Field Obser Surface Water Table Saturation F	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriverint Deposits (B2) (Nonriverint Deposits (B3) (Nonriverint Deposits (B6)) on Visible on Aerial Installed Leaves (B9) vations: er Present? Present? Yeresent? Yeresent?	ne required ine) iniverine) inagery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu	epty) rust (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re	s (B13) dor (C1) res along ed Iron (C4 on in Tille C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar	s (2 or mi 1) (River sits (B2) (Rive ns (B10) ter Table rs (C8) le on Aer d (D3) st (D5)	ore required) ine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Wetland Hy Primary India Surface Fligh Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriveri nt Deposits (B2) (Nor posits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial In Stained Leaves (B9) vations: eer Present?	ne required ine) nriverine) rine) magery (B7	i: check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu Other (I	poly) st (B11) rust (B12) Invertebrate en Sulfide Od d Rhizospher ce of Reduce iron Reduction ck Surface (Explain in Re (inches):	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (Rive ns (B10) ter Table rs (C8) le on Aer d (D3) st (D5)	ore required) Ine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Wetland Hy Primary India Surface Fligh Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriver int Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) vations: er Present? Present? Versent? pillary fringe)	ne required ine) nriverine) rine) magery (B7	i: check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mu Other (I	poly) st (B11) rust (B12) Invertebrate en Sulfide Od d Rhizospher ce of Reduce iron Reduction ck Surface (Explain in Re (inches):	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (Rive ns (B10) ter Table rs (C8) le on Aer d (D3) st (D5)	ore required) Ine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Wetland Hy Primary India Surface Fligh Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Water Table Saturation P (includes ca Describe Re	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) draks (B1) (Nonriveri nt Deposits (B2) (Nonriveri nt Deposits (B3) (Nonriveri soil Cracks (B6) on Visible on Aerial in stained Leaves (B9) vations: der Present? Present? Present? principal drama (stream	ne required ine) nriverine) magery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mi Other (I	epty) st (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re (inches): (inches): al photos, pri	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo- Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (B3) (River ns (B10) ter Table s (C8) le on Aer d (D3) st (D5)	ore required) fine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Vetland Hy Primary India Surface Figh Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) draks (B1) (Nonriveri nt Deposits (B2) (Nonriveri nt Deposits (B3) (Nonriveri soil Cracks (B6) on Visible on Aerial in stained Leaves (B9) vations: der Present? Present? Present? principal drama (stream	ne required ine) nriverine) magery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mi Other (I	epty) st (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re (inches): (inches): al photos, pri	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo- Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (B3) (River ns (B10) ter Table s (C8) le on Aer d (D3) st (D5)	ore required) fine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Vetland Hy Primary India Surface Fligh Wa Saturati Water N Sedime Drift De Surface Inundati Water-S Field Obser Surface Wat Nater Table Saturation P includes ca Describe Re	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) draks (B1) (Nonriveri nt Deposits (B2) (Nonriveri nt Deposits (B3) (Nonriveri soil Cracks (B6) on Visible on Aerial in stained Leaves (B9) vations: der Present? Present? Present? principal drama (stream	ne required ine) nriverine) magery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mi Other (I	epty) st (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re (inches): (inches): al photos, pri	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo- Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (B3) (River ns (B10) ter Table s (C8) le on Aer d (D3) st (D5)	ore required) fine) (Riverine) rine) (C2) rial Imagery (C9)
YDROLO Wetland Hy Primary India Surface High Water M Sedimen Drift De Surface Inundati Water-S Field Obser Surface Water Table Saturation P (includes ca Describe Re Remarks:	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) darks (B1) (Nonriver int Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) vations: er Present? Present? Versent? pillary fringe)	ne required ine) nriverine) rine) magery (B7	i; check all that all Salt Cru Biotic C Aquatic Hydrog Oxidize Present Recent Thin Mi Other (I	epty) st (B11) rust (B12) Invertebrate en Sulfide Oc d Rhizospher ee of Reduce iron Reduction eck Surface (Explain in Re (inches): (inches): al photos, pri	s (B13) dor (C1) res along ed Iron (C4 on in Tille (C7) emarks)	Living Ro	oots (C3)	ondary Indicator Water Marks (B Sediment Depo- Drift Deposits (E Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Shallow Aquitar FAC-Neutral Te	s (2 or mi 1) (River sits (B2) (B3) (River ns (B10) ter Table s (C8) le on Aer d (D3) st (D5)	ore required) fine) (Riverine) rine) (C2) rial Imagery (C9)

Project/Site: McDonal Parcel Development/5460 King	Road City/County: Loomis/	Placer	_ Sampling Date:
Applicant/Owner: Ms. Morgan McDonald			The state of the s
Investigator(s): Patrick Martin			
Landform (hillslope, terrace, etc.): Hillslope			
Subregion (LRR): C			
Soil Map Unit Name: 106-Andregg coarse sandy loam,			ication: None
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 🤏 si	gnificantly disturbed? Are	"Normal Circumstances"	present? Yes No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> na	aturally problematic? (If n	eeded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s		locations, transect	s. important features, etc.
	Is the Sample	d Area	
Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	i within a wetta	nd? Yes	No
		THE SAME OF THE SA	
Remarks: Irrigated pasture don site lacks wellandy hydrolog	ninuted, by hy	STOP LIFES TO	brezerous abjents
swale COPY wetherby hydrolog	ly and it occur	i allacent t	o a wegiere
VEGETATION – Use scientific names of plant			
Tree Stratum (Plot size:)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test wor	
1.	*	That Are OBL, FACW	
2.		Total Number of Dom	inant 2
3. 185 See Gard Communication of the Communication		Species Across All St	The control of the co
4.		Percent of Dominant	Species (A/R)
Sapling/Shrub Stratum (Plot size:)	= Total Cover	That Are OBL, FACW	, or FAC: (A/B)
1		Prevalence Index wo	orksheet:
2.		Total % Cover of:	: Multiply by:
3.		the first the second of the se	x 1 =
4.			x2=
5.	O = Total Cover		x3=*
Herb Stratum (Plot size:)	= Total Cover	and a second control of the second control o	x4= x5=
1. Puspalum d'latatum	40 Y FAC		(A) (B)
2. Cynodon ductylon	35 X FACU		
3. Cypeux eragrostis	15 N FACW		ex = B/A =
4. <u>Cenchous clandestinus</u>			tion Indicators:
6. Rumex pulcher	5 N FAC	Dominance lest	is >50% c is ≤3.0 ¹
6.			t is \$3.0 daptations ¹ (Provide supporting
7.		data in Remar	rks or on a separate sheet)
8.	1೮೮ = Total Cover		rophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)			The second of the second
1. Rubus armaniacus	10 Y FAC		oil and wetland hydrology must sturbed or problematic.
2.			stuiped of propietitatic.
	= Total Cover	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum % Cover	r of Biotic Crust	Present? Y	/es No
Remarks: Dominated by hydroph	ale		
nowing the ad whomby	W		*
	and the second s		SAN

SOIL	

ofile Desc	ription: (Describe	to the depth in	seaea to aocui			i file absence	or murcators.
epth	Matrix Color (moist)			ox Features		Texture	Remarks
ches)	1048 3/1		OIOI (IIIOISI)	70 IVD 0	LUC	S. L	
		100	ter -		to Non-		course sund
13	10YR 4/1	100 -				<u> </u>	
pe: C=C	oncentration, D=Dep	letion, RM=Rec	luced Matrix, C	S=Covered or Coat	ed Sand Gr	ains. ² Loc	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					Indicators	for Problematic Hydric Soils ³ :
Histosol			Sandy Red	, ,			fluck (A9) (LRR C)
	pipedon (A2)		Stripped Ma				fluck (A10) (LRR B)
	istic (A3) en Sulfide (A4)			cky Mineral (F1) yed Matrix (F2)			ed Vertic (F18) arent Material (TF2)
	d Layers (A5) (LRR (C)	Depleted M			-	(Explain in Remarks)
	ıck (A9) (LRR D)	-,		k Surface (F6)		-	,,
-	d Below Dark Surfac	e (A11)		ark Surface (F7)		•	
	ark Surface (A12)			ressions (F8)			of hydrophytic vegetation and
	Mucky Mineral (S1) Bleyed Matrix (S4)	,	Vernal Poo	is (F9)			hydrology must be present, isturbed or problematic.
	Layer (if present):					1 111033 4	istarbod of problematio.
	. 1					1	
IVDe:	NOW						•
Depth (in	ches): <u>N/A</u>	roma *	of lor	less in	the	<u> </u>	Present? Yes No No
Depth (inc marks:	ches): <u>N/A</u> 4 low Ch hydric so	noma x	of 1 or	less in Mottles u	the	<u> </u>	
Depth (incomarks:	ches): <u>N/A</u> A low ch hydric so		of 1 0 C	less in Mottles o	the	<u> </u>	
Depth (increase) a DROLO	ches): N/A A low ch hydric so GY drology Indicators:				the	matrix not det	is indicative ected.
Depth (increase) DROLO tland Hymary Indice	ches): N/A A low ch hydric so GY drology Indicators: cators (minimum of c		eck all that app	lv)	the	mahix not deb	is indicative ected.
DROLO tland Hyd nary Indic	ches): N/A A low ch hydric so GY drology Indicators: cators (minimum of c		eck all that app	iy) t (B11)	the	mahix not let Secon V	is indicative ected. adary Indicators (2 or more required) Vater Marks (B1) (Riverine)
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DROLO tland Hyd ary India Surface High Wa Saturatio	ches): N/A A low ch hydric so GY drology Indicators: cators (minimum of co Water (A1) ater Table (A2)	one required; ch	eck all that app Salt Crust Biotic Cru	iy) t (B11)	the	mahix not leb Secon V S	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
DROLO Cland Hymary Indic Surface High Wa Saturatic Water M	ches): N/A A low che hydric so GY drology Indicators: cators (minimum of companion (A1) ater Table (A2) on (A3)	one required; ch	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen	ily) t (B11) ist (B12) overtebrates (B13)	sere	secon	i i indicative ected. Indary Indicators (2 or more required) Vater Marks (B1) (Riverine) Pediment Deposits (B2) (Riverine) Prift Deposits (B3) (Riverine)
DROLO tland Hymary India Surface High Wa Saturatio Water M Sedimer Drift Dep	ches): N/A A low ch hydric so GY drology Indicators: cators (minimum of co Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver int Deposits (B2) (Nonrive	one required; ch dine) nriverine)	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized I	iy) t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	J Living Rocky)	Secon V S D ts (C3) C	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) vediment Deposits (B2) (Riverine) orift Deposits (B3) (Riverine) originage Patterns (B10) ory-Season Water Table (C2) orayfish Burrows (C8)
DROLO tland Hydrary India Surface High Wa Saturatia Water M Sedimer Drift Der Surface	ches): N/A A low che hydric so GY drology Indicators: cators (minimum of composits (A2) on (A3) flarks (B1) (Nonriver ont Deposits (B2) (No posits (B3) (Nonriver Soil Cracks (B6)	ne required; ch line) nriverine) rine)	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In	iv) t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tilli	J Living Rocky)	Secon	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) orift Deposits (B3) (Riverine) originage Patterns (B10) ory-Season Water Table (C2) orayfish Burrows (C8) eaturation Visible on Aerial Imagery (C
DROLO Trans India Surface High Wa Saturatia Water M Sedimer Drift Dep Surface Inundati	ches): N/A A low checked characteristics (Minimum of control of c	ne required; ch line) nriverine) rine)	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized In Presence Recent In	ity) It (B11) It (B12) It (B12) It (B13) It Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con) Reduction in Tille k Surface (C7)	J Living Rocky)	Secon	is indicators (2 or more required) Vater Marks (B1) (Riverine) Print Deposits (B2) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Praturation Visible on Aerial Imagery (Catallow Aquitard (D3)
DROLO tland Hymary India Surface High Wa Saturatia Water M Sedimer Drift Dep Surface Inundati Water-S	ches): N/A A low Ch Chydric So GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) ion Visible on Aerial stained Leaves (B9)	ne required; ch line) nriverine) rine)	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized In Presence Recent In	iv) t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tilli	J Living Rocky)	Secon	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) orift Deposits (B3) (Riverine) originage Patterns (B10) ory-Season Water Table (C2) orayfish Burrows (C8) eaturation Visible on Aerial Imagery (C
DROLO Transport Tran	ches): N/A A low Ch hydric so GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriver int Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) ion Visible on Aerial stained Leaves (B9) vations:	ine) nriverine) rine)	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized In Presence Recent Ind Thin Mucl	iv) t (B11) st (B12) nvertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tille k Surface (C7) splain in Remarks)	J Living Rock4) and Soils (Co	Secon	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Print Deposits (B2) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Praturation Visible on Aerial Imagery (Catallow Aquitard (D3)
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DROLO atland Hyden Surface High Water M Sedimen Drift Dep Surface Inundati Water-Seld Observace Attact Water Table	ches): N/A A low checked to the process of the pro	ine) rine) rine) rine) Imagery (B7) 'es No _ 'es No _	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In Thin Mucl Other (Ex	iv) t (B11) set (B12) nvertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tillick Surface (C7) splain in Remarks) nches):	J Living Rock4) and Soils (Co	Secon	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Profit Deposits (B2) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Pray
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Depth (incomarks: DROLO Itland Hymary India Surface High Water M Sedimer Drift Dep Surface Inundati Water-S Ind Obser rface Wat ater Table turation P	ches): N/A A low checked to the position of control of the position of the po	ene required; che line) nriverine) rine) Imagery (B7) 'es No _ 'es No _	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In Thin Mucl Other (Ex	iy) t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tillick Surface (C7) iplain in Remarks) inches):	g Living Rock4) ed Soils (C6	Secon Secon V S Dots (C3) S S A A A B B B B B B B B B B	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Profit Deposits (B2) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Pray
Depth (incomarks: DROLO Itland Hymary Indic Surface High Water M Sedimer Drift Dep Surface Inundati Water-Sold Obser rface Water Table Ituration P Cludes cal scribe Re	ches): N/A A low checked to the position of control of	ine) nriverine) rine) Imagery (B7) 'es No _ 'es No _ 'es No _ n gauge, monito	eck all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized In Presence Recent In Thin Mucl Other (Ex Depth (in Depth (in	iv) t (B11) ist (B12) ivertebrates (B13) i Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tillo k Surface (C7) iplain in Remarks) inches): inches): inches):	y Living Rock (4) and Solls (Co	Secondary Second	ndary Indicators (2 or more required) Vater Marks (B1) (Riverine) Profit Deposits (B2) (Riverine) Prainage Patterns (B10) Pry-Season Water Table (C2) Prayfish Burrows (C8) Pray

Project/Site: McDonal Parcel Development/5460 King I	Road (City/County	Loomis/P	Placer Sampling Date: 2017-12-15
Applicant/Owner: Ms. Morgan McDonald				State: <u>CA</u> Sampling Point: <u>3</u>
Investigator(s): Patrick Martin				nge: Section 9, T11N, R7E
Landform (hillslope, terrace, etc.): hillslope		Local relief	(concave, c	convex, none): concave Slope (%): 0-1
				Long: -121-205324 Datum: NAO83
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2				NWI classification: None
Are climatic / hydrologic conditions on the site typical for this t				(If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N sig	-			Normal Circumstances" present? Yes No
Are Vegetation N, Soil N, or Hydrology N nat				eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s			•	
Hydric Soil Present? Wetland Hydrology Present? Remarks: Pend margin on upstere	edge	alung		of Yes No
VEGETATION - Use scientific names of plants			3	
	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 10 x 10')	% Cover	Species?		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
				Total Number of Dominant
3.				Species Across All Strata: (B)
4	0	= Total Co	 ver	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: (5' ×10')				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
3.	***************************************			OBL species x 1 =
4.				FACW species x2 =
5.	-c		LANGE B	FAC species x 3 =
	<u> </u>	= Total Co	ver	FACU species x4 =
Herb Stratum (Plot size: /0 ×10')	E	N	OBL	UPL species x 5 =
1. Leunencepp, 2. Scholencelectus ser.	20		DIBL	Column Totals: (A) (B)
3. Propalum dilatatum	30	7	FAC	Prevalence Index = B/A =
4. Cupens eronoshi	10	N	FACW	Hydrophytic Vegetation Indicators:
5.		N (NEED 1 199		<u>★</u> Dominance Test is >50%
6.				Prevalence Index is ≤3.0¹
7.		The Control of the Co		Morphological Adaptations¹ (Provide supporting
8.				data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
50 32.5 20 13	<u>65</u>	= Total Co	ver	Problematic hydrophytic vegetation (Explain)
Woody Vine Stratum (Plot size: 10 K to')				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
25	0	= Total Co		Hydrophytic Vegetation
% Bare Ground in Herb Stratum 35 % Cover of			<u> </u>	Present? Yes No No
Remarks: Dominated by hydrophyte		chep:	5 00	ligate extelligate plants.

-	-		
•	<i>f</i> 1	31	

	4
Sampling Point	: O

Depth	Matrix			x Features			
inches)	Color (moist)	%	Color (moist)	%Type¹	Loc ²	<u>Texture</u>	Remarks
3-10	IOYRULI	<u>90</u>	TSYR %	10 C	<u>M</u>	1 Damy sand	- bang mangin
		-			PL		A.
					-		
					· ·		
					-		
	•		p		-		
voe: C=C	oncentration, D=Der	letion. RM:	=Reduced Matrix. C	S=Covered or Coa	ed Sand G	rains. ² Location	: PL=Pore Lining, M=Matrix.
	Indicators: (Applic						roblematic Hydric Soils ³ :
Histosol			Sandy Red			1 cm Muck ((A9) (LRR C)
Histic E	pipedon (A2)		Stripped M				(A10) (LRR B)
_ Black H	istic (A3)		Loamy Mud	cky Mineral (F1)		Reduced Ve	ertic (F18)
_ Hydroge	en Sulfide (A4)			yed Matrix (F2)			Material (TF2)
	d Layers (A5) (LRR	C)	✓ Depleted M	latrix (F3)		Other (Expl	ain in Remarks)
_ 1 cm Mi	uck (A9) (LRR D)		Redox Dari	k Surface (F6)			
	d Below Dark Surfac	e (A11)		ark Surface (F7)		3	
	ark Surface (A12)			ressions (F8)			drophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	is (F9)		•	ology must be present,
	Gleyed Matrix (S4)					uniess disturb	ed or problematic.
	Layer (if present):						
Туре:	None						
			**************************************			1	A CONTRACTOR OF THE CONTRACTOR
	ches): N/A Prominent of soil	redox fulful	concentral hydric so	Hiers in	the v	1 -	the top 10 x (F3). Redox is
emarks: p	Prominent of soil nesent along	redox fulfull Pore	concentral hydric so linings of Li	thions in Il criteria ving root al	the v Deplands	1 -	the top 10 x (F3). Redox is
emarks: p	Prominent of soil nesent along		concentral hydric so linings of Li	thions in Il coniteria ving most el	the v Deptaunds	1 -	
emarks: paches Soperation OROLO Order Orolo Orolo	Prominent of soil nesent along DGY drology Indicators				the vept	natrix in elec Matri	
emarks: packets As P /DROLO /etland Hy rimary Indi	Prominent of soil nesent along DGY drology Indicators cators (minimum of		d; check all that app	lv)	the v Dept counts	eted Matri	the top 10 x (F3). Redox i's
emarks: powers power powers power po	Prominent of soil nesent along DGY drology Indicators cators (minimum of o		d; check all that app	ly) l (B11)	the v Dept counds	Secondary Water	He top 10 x (F3). Redox i's Indicators (2 or more required) Marks (B1) (Riverine)
emarks: percentage of the control of	Prominent of soil nescut along odrology indicators cators (minimum of o Water (A1) ater Table (A2)		d; check all that app Salt Crust Biotic Cru	iy) t (B11) st (B12)	the v Dept counts	Secondary Water Sedime	Marks (B1) (Riverine) ent Deposits (B2) (Riverine)
PROLO POROLO Potland Hy rimary Indi Surface High Wa	Prominent of soil nesent along OGY drology Indicators cators (minimum of a Water (A1) ater Table (A2) ion (A3)	ne require	d; check all that app Salt Crust Biotic Cru	ly) t (B11) ist (B12) overtebrates (B13)	the v Dept caunds	Secondary Water Sedime Drift De	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine)
PROLO Petland Hy rimary Indi Surface High W. Saturati Water M	Prominent Control C	one require	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen	ly) t (B11) lst (B12) overtebrates (B13) s Sulfide Odor (C1)	A.S.	Secondary Water Sedime	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10)
emarks: Nebes Nebes Nebes OROLO Ortland Hy Fight Water Nebes Sedime	Prominent of soil nesent along of value (Al) ater Table (A2) ion (A3) Marks (B1) (Nonriver nt Deposits (B2) (No	one require rine) nriverine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen	ly) It (B11) Ist (B12) Invertebrates (B13) It Sulfide Odor (C1) Rhizospheres along	J Living Roo	Secondary Water Sedim Drift Do Draina Dts (C3) Dry-Se	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2)
POROLO Vetland Hy rimary Indi Surface High W Saturati Water M Sedime Drift De	Prominent GY drology Indicators cators (minimum of	one require rine) nriverine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized	iv) t (B11) ist (B12) overtebrates (B13) sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	g Living Roo 24)	Secondary Water Sedim Drift Do Draina ots (C3) Crayfis	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2) sh Burrows (C8)
PROLO Potland Hy rimary Indi Surface High Water M Sedime Drift De Surface	or value of a land of the second of the seco	ne require rine) nriverine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In	iv) t (B11) ist (B12) ivertebrates (B13) sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till	g Living Roo 24)	Secondary Water Sedim Drift D Draina ots (C3) Crayfis Satura	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C
PROLO Potland Hy rimary Indi Surface High Water N Sedime Drift De Surface Inundat	of soil cacks (B6) ion Visible on Aerial	ne require rine) nriverine)	d: check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent Ind Thin Muci	iv) it (B11) ist (B12) overtebrates (B13) is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till k Surface (C7)	g Living Roo 24)	Secondary Water Sedime Drift December (C3) Crayfis Satura Shallon	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cw Aquitard (D3)
PROLO Petland Hy Pimary Indi Surface High Water M Sedime Drift De Surface Inundat Water-S	of variable (A2) Indicators (Minimum of	ne require rine) nriverine)	d: check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent Ind Thin Muci	iv) t (B11) ist (B12) ivertebrates (B13) sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till	g Living Roo 24)	Secondary Water Sedime Drift December (C3) Crayfis Satura Shallon	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C
PROLO Petland Hy rimary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-S ield Observance	of variable (A2) ion (A3) Marks (B1) (Nonrive nt Deposits (B2) (Nonrive Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9)	rine) rine) rine) rine)	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In Thin Mucl	iv) it (B11) ist (B12) invertebrates (B13) is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till it Surface (C7) iplain in Remarks)	g Living Roo 24)	Secondary Water Sedime Drift December (C3) Crayfis Satura Shallon	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cw Aquitard (D3)
POROLO Vetland Hy rimary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-S Vetlad Observires	GY drology Indicators cators (minimum of of other (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver int Deposits (B2) (Nonriver Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	rine) inne) inniverine) imagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Voxidized Presence Recent Inc Thin Muci Other (Ex	ily) It (B11) Ist (B12) Invertebrates (B13) Is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till It Surface (C7) Isplain in Remarks)	g Living Roo 24)	Secondary Water Sedime Drift December (C3) Crayfis Satura Shallon	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cw Aquitard (D3)
PROLO Petland Hy India Surface High Water M Sedime Drift De Surface Inundat Water-S Teld Observariace Warface Water-S	OGY Idrology Indicators Cators (minimum of or	rine) Imagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In Thin Muct Other (Ex	iv) It (B11) Ist (B12) Invertebrates (B13) Is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduced Iron (Con Reduction in Till It Surface (C7) Isplain in Remarks) Inches):	g Living Roo 24) ed Soils (Ce	Secondary Water Sedim Drift Do Draina Ots (C3) Crayfis Satura Shallon FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cay and Augustard (D3) leutral Test (D5)
PROLO Petland Hy rimary Indi Surface High Water M Sedime Drift De Surface Inundat Water-S ield Observator Table saturation F	OGY Idrology Indicators Cators (minimum of or	rine) Imagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Voxidized Presence Recent Inc Thin Muci Other (Ex	iv) It (B11) Ist (B12) Invertebrates (B13) Is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduced Iron (Con Reduction in Till It Surface (C7) Isplain in Remarks) Inches):	g Living Roo 24) ed Soils (Ce	Secondary Water Sedim Drift Do Draina Ots (C3) Crayfis Satura Shallon FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cw Aquitard (D3)
YDROLO Vetland Hy Primary Indi Yourface High Water M Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation Fincludes ca	of Y various in the second of	rine) Imagery (B	d; check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized in Presence Recent In Other (Ex No Depth (in	iv) It (B11) Ist (B12) Invertebrates (B13) Is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till It Surface (C7) It plain in Remarks) Inches):	g Living Rock (4) ed Soils (Co	Secondary Water Sedim Drift Do Draina Ots (C3) Crayfis Satura Shallor FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cay and Augustard (D3) leutral Test (D5)
YDROLO Vetland Hy Primary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Field Obser Surface Water Table Saturation Fincludes ca	drology indicators cators (minimum of a water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver to Deposits (B2) (Nonriver Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	rine) Imagery (B //es	d: check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Oxidized Presence Recent In Thin Mucl Other (Ex No Depth (in No Depth (in	iv) it (B11) ist (B12) ivertebrates (B13) is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till it Surface (C7) iplain in Remarks) inches):	y Living Rock (4) ed Soils (Co	Secondary Water Sediment Drift De Draina Dris (C3) Dry-Se Crayfis Shallor FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2) eth Burrows (C8) tion Visible on Aerial Imagery (Ca) w Aquitard (D3) leutral Test (D5)
PROLO Petland Hy rimary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Held Obser urface Water Table aturation Fincludes ca escribe Re	drology indicators cators (minimum of a water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver to Deposits (B2) (Nonriver Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	rine) Imagery (B //es	d: check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Voxidized Presence Recent In Thin Mucl Other (Ex No Depth (in No Depth (in	iv) it (B11) ist (B12) ivertebrates (B13) is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till it Surface (C7) iplain in Remarks) inches):	y Living Rock (4) ed Soils (Co	Secondary Water Sediment Drift De Draina Dris (C3) Dry-Se Crayfis Shallor FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) eason Water Table (C2) eth Burrows (C8) tion Visible on Aerial Imagery (Ca) w Aquitard (D3) leutral Test (D5)
PROLO Petland Hy rimary Indi Surface High Water N Sedime Drift De Surface Inundat Water-S Held Obser urface Water Table aturation F ncludes ca escribe Re	drology indicators cators (minimum of a water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver to Deposits (B2) (Nonriver Soil Cracks (B6) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	rine) Imagery (B //es	d: check all that app Salt Crust Biotic Cru Aquatic In Hydrogen Voxidized Presence Recent In Thin Mucl Other (Ex No Depth (in No Depth (in	iv) it (B11) ist (B12) ivertebrates (B13) is Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Till it Surface (C7) iplain in Remarks) inches):	y Living Rock (4) ed Soils (Co	Secondary Water Sediment Drift De Draina Dris (C3) Dry-Se Crayfis Shallor FAC-N	Indicators (2 or more required) Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) pason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (Cay and Augustard (D3) leutral Test (D5)

Project/Site: McDonal Parcel Development/5460 King	Road : (City/County	: Loomis/P	lacer	Sampling Date: 2017-12-15
					Sampling Point:
				ge: Section 9, T11N.	
Landform (hillslope, terrace, etc.): hillslope					
Subregion (LRR): C					
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2					
Are climatic / hydrologic conditions on the site typical for this			,		
Are Vegetation N, Soil N, or Hydrology N signal					present? Yes No
Are Vegetation N, Soil N, or Hydrology N na			-	eded, explain any answ	
SUMMARY OF FINDINGS – Attach site map s	nowing	sampning	g point ic	cations, transect	s, important reatures, etc.
Hydrophytic Vegetation Present? Yes No	<u>~</u>	is th	e Sampled	Area	
Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No		1			No
Remarks: Data point represents which supports wetlands. I	irrigo	rics b	astur	e adjacent	40 a bong
which supports wethenes. I	Errigo	rted b	iastu-	e represer	its urkinds.
VEGETATION – Use scientific names of plant	s.				
	Absolute	Dominant Species?		Dominance Test wor	
1	76 COVEL	<u>Species r</u>	Status	Number of Dominant : That Are OBL, FACW	
11 шиницинальный принцинальный принциний принцинальный принцинальный принцинальный принцинальный пр					
3. 1 1965 M. Harris Har				Total Number of Domi Species Across All Str	- Transaction - Alternative Acts
4.				The State growing sides of	
	0	= Total Co	ver	Percent of Dominant 8 That Are OBL, FACW	or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 20 x 20)					A. 美的解析。
2				Prevalence Index wo	rksneet:Multiply by:
3			1		x1=
4				the second of the control of the con	x2=
5.			111		x3=
	0	= Total Co	ver	FACU species	x4=
Herb Stratum (Plot size: 20' 20')		V	FACU	UPL species	x5=
1. Cynodon dactylon	<u>50</u>		FACO	Column Totals:	(A) (B)
2. This live dubitum 3. Oithfurtétaire graveolers	16.	~~	<u> </u>	Prevalence Inde	∨ – R/A –
3. <u>Dittivitétais</u> graveolens 4. Leon todon saratilis	<u>e</u> -		FAW	Hydrophytic Vegetat	
5. Propulary dilutatum	10.		FAC	<u>M</u> . Dominance Test i	
6. Cypens erganistis	8	N	FACW	NAPrevalence Index	
7.				Norphological Ad	aptations ¹ (Provide supporting
8.					ks or on a separate sheet)
50 49 20 19.6	97	= Total Co	ver	Problematic Hydr	ophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)			Average Section	10	en jaron kan kan kan kan kan kan kan kan kan ka
					oil and wetland hydrology must turbed or problematic.
2. www.construction.com/withinstruction.com/wi				Undershills	
		= Total Co	ver	Hydrophytic Vegetation	
	of Biotic Cr			Present? Y	es No
Remarks: Wetland regetation is	pres	sent.	bat	is domin	colled by
upland regetation.	•	,			T
) of the second					

en	11
30	ıL

Depth

(inches)

0-14

Matrix

Color (moist)

7.548 41

Sampling Point: Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.) Remarks 1015 ²Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils³: _ 1 cm Muck (A9) (LRR C) ___ 2 cm Muck (A10) (LRR B) __ Reduced Vertic (F18) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soll Present? Yes

HYDRO	LOGY
-------	------

Type: _

Remarks:

Histosol (A1)

Histic Epipedon (A2)

Hydrogen Sulfide (A4)

Thick Dark Surface (A12)

Sandy Mucky Mineral (S1)

Sandy Gleyed Matrix (S4) Restrictive Layer (if present):

Depth (inches):

Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (LRR D)

Depleted Below Dark Surface (A11)

None

Black Histic (A3)

HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check	Secondary Indicators (2 or more required)	
High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (Ci Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe)		lydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if ava	illable:
Remarks: No wellound hydrol	ogy indicators detec	Hed.

Redox Features

Type¹

Color (moist)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

__ Sandy Redox (S5)

___ Stripped Matrix (S6)

Loamy Mucky Mineral (F1)

Loamy Gleyed Matrix (F2)

Redox Dark Surface (F6) Depleted Dark Surface (F7)

Redox Depressions (F8)

Depleted Matrix (F3)

Vernal Pools (F9)

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

low chroma of 1 or less

hydric soil conditions (corps 1987).

Texture

mahrita

the

Project/Site: McDonal Parcel Development/5460 King Road	City/County: Loomis/	
Applicant/Owner: Ms. Morgan McDonald	Very State of the Control of the Con	State: <u>CA</u> Sampling Point: <u>S</u>
Investigator(s): Patrick Martin	Section, Township, Ra	nge: Section 9, T11N, R7E
		convex, none): concev-C Slope (%): 0-1
Subregion (LRR): C Lat:	39. 823635	Long: -121, 205096 Datum: NADES
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2 to 9		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No _	(If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significa	antly disturbed? Are "	'Normal Circumstances" present? Yes No
Are Vegetation N, Soil N, or Hydrology N naturall	y problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Data point 5 represents a on a low point of a hillslope water to the pont and it qualific	Is the Sampled within a Wetlan Seasonal well This location Sus a wellan	nd? Yes No No
VEGETATION – Use scientific names of plants.		
Aher		Dominance Test worksheet:
	over Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1		That Ale Obe, I Aovi, of Ale.
3. 284 The 1884 The 1		Total Number of Dominant Species Across All Strata: (B)
4.		
Carller (Charle Charles District 253 233	2 = Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 25 × 25)		Prevalence Index worksheet:
2.		Total % Cover of: Multiply by:
3.		OBL species x 1 =
4.		FACW species x 2 =
5.		FAC species x3 =
	= Total Cover	FACU species x4 =
Herb Stratum (Plot size: 10'x10') 1. Paspelum dilatatum 57	~ Y =	UPL species x 5 =
1. Hispelian dilatatum 57 2. Caux praegraciis se	y FACU	Column Totals: (A) (B)
	FALU FALU	Prevalence Index = B/A =
3. Cyperus eracros is		Hydrophytic Vegetation Indicators:
5.		Dominance Test is >50%
6	and the second s	N Prevalence Index is ≤3.01
7		Morphological Adaptations (Provide supporting
8.		data in Remarks or on a separate sheet)
50 42.5 20 17 8	5 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 20 x 201)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
1.		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u> </u>	
	C = Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum 15 % Cover of Bio	otic Crust	Present? Yes No
Remarks: Hydrophyles in imageded 1	rasher.	

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.)								
Depth	Matrix (malet)			x Features	Type ¹	Loc ²	Texture	Remarks
(inches)	Color (moist) 74547R 3/1	(00	Color (moist)	%	IVPU	LUC	SC_	w/ much - brown
h			possesses -				-	
4-10	7.54R4/1	10-0					<u> </u>	no organics
		-						
			d'					
			#.					
1Tune: 0-0	towarded DeDon	letien DM-i	Paduand Matrix CS	COVERED	or Coate	d Sand C	Praine 21 0	ocation: PL=Pore Lining, M=Matrix.
Hydric Soll	oncentration, D=Dep Indicators: (Applic	etion, RM=I	RRs. unless other	wise note	d.)	iu Sanu C	Indicators	s for Problematic Hydric Soils ³ :
Histoso			Sandy Red		•			Muck (A9) (LRR C)
, —	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
	istic (A3)		Loamy Muc		(F1)			ced Vertic (F18)
	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Red F	Parent Material (TF2)
	d Layers (A5) (LRR 0	C)	Depleted M	atrix (F3)			Other	(Explain in Remarks)
1 cm M	uck (A9) (LRR D)		Redox Dark				*	
Deplete	d Below Dark Surfac	e (A11)	Depleted D				•	
	ark Surface (A12)		Redox Dep		⁼ 8)			s of hydrophytic vegetation and
1 — ·	Mucky Mineral (S1)		Vernal Pool	s (F9)				d hydrology must be present,
	Sleyed Matrix (S4)						uniess	disturbed or problematic.
l	Layer (if present):							
Type:		163	e de la companya del companya de la companya del companya de la co				Hydric So	il Present? Yes No
<u> </u>	nches):					***************************************	Tiyanic Go	
Remarks:	A low	chrom	a of less	their	. 1	in 1	he mal	rix is indicative
aC a	hydric soi				•	• •		
05 a	ACLIE 281	1 (con	25 1481).					
HYDROLO)GY							
Wetland Hy	drology Indicators:							
Primary Ind	icators (minimum of c	ne required	; check all that app	v)			Seco	ondary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)				Water Marks (B1) (Riverine)
High W	ater Table (A2)		Biotic Cru	st (B12)				Sediment Deposits (B2) (Riverine)
Saturat			Aquatic In		s (B13)			Drift Deposits (B3) (Riverine)
	Marks (B1) (Nonriver	ine)	Hydrogen				_	Drainage Patterns (B10)
1	ent Deposits (B2) (No		Oxidized			Living R	oots (C3)	Dry-Season Water Table (C2)
	posits (B3) (Nonrive		Presence					Crayfish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro				C6)	Saturation Visible on Aerial Imagery (C9)
	tion Visible on Aerial	lmagery (B7				,	•	Shallow Aquitard (D3)
	Stained Leaves (B9)		Other (Ex					FAC-Neutral Test (D5)
Field Obse								· •
1		'es !	No ✓ Depth (ir	iches):	-	,		
Water Table		/es I		ches):				_
Saturation I	Present?	res 🗸 I	No Depth (ir	•	4	We	etland Hydrolo	gy Present? Yes No
(includes ca	apillary fringe)		-/4		iordorio in	anadiana) if quallable:	
Describe R	ecorded Data (stream	ı gauge, mo	initoring well, aerial	pnotos, pr	evious in	spections	s), ir avallable.	
				_	*			
Remarks:	Water is	sat	welfed a	4 4	1 inc	hes	below	the surface.
which	GIGILS	Salw	A) norbay	4 (F	yenc	. 50	if evile	ria. Water-strinet
Leave	S (159) 01	blade	s of sumss	i's A	ISP F	nese	of Dra	ria. Water-strinet whose pattern (B10) Slowing water 15
15 000	sent and	20513.	n betwee	in are	435 C	Ivup	5 from	Howing water 15
CUI Em	t, site mg	SES FA	4C-neulvo	الله الم	t C	251.	_	U

Project/Site: McDonal Parcel Development/5460 King	Road C	City/County	Loomis/F	Placer S	Sampling Date: 2017-12-15
				State:CAS	
Investigator(s): Patrick Martin					
Landform (hillslope, terrace, etc.): hillslape		Local relief	(concave, c	convex, none): There	Slope (%): 0-1
Subregion (LRR): C	Lat: 38	. 92369	7	Long: -121. 265 114	Datum: NAO83
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2				NWI classification	
Are climatic / hydrologic conditions on the site typical for this				(If no, explain in Re	marks.)
Are Vegetation N, Soil N, or Hydrology N sig				Normal Circumstances" pre	esent? Yes No
Are Vegetation N, Soil N, or Hydrology N na	turally proi	blematic?		eded, explain any answers	
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point k	ocations, transects,	important features, etc.
Hydric Soil Present? Wetland Hydrology Present? Yes No		with	eatti va cu i cama ii	d? Yes	
Remarks: Dura point 6 representation. Hydric s	ents oil is	prese	ated p	easterne dom	unated by and hydrology
VEGETATION - Use scientific names of plant		177	Tagagga (11)	1944	
Tree Stratum (Plot size: 10 x80)	Absolute % Cover	Dominant Species?		Dominance Test works Number of Dominant Sports That Are OBL, FACW, or	ecies (
2.				Total Number of Domina	nt 2
3.		-	Name :	Species Across All Strate	a;(B)
4	0	= Total Co	ver	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 10 + 20)				10 mg 2000 mg 10 mg 2000 g 2000 mg	
1.				Prevalence Index work Total % Cover of:	
2.					x1 =
3. Annual production and the second s					x2=
5.					x3=
3	0	= Total Co	1AV		x4=
Herb Stratum (Plot size: 60'X 20')		(4) (4)			x5=
1. Paspalum dilatatum	25	<u> Y</u>	FAC		(A)(B)
2. Trifolium dubium	15	<u>M</u>			
3. Acmispon americanus	12	40	DOF		= B/A =
4. Cypens erasiosh's	3	N	FACW	Hydrophytic Vegetation	
5. Cynoden dectylus	30"	<u> </u>	FACU	Dominance Test is	>50% ≤3,0¹
6. Geranium molle	_5	<u> </u>		Prevalence Index is	≤3.0°
7. U.S. Seed Seed (1997) 111 - N. See				Morphological Adap	itations ¹ (Provide supporting or on a separate sheet)
8.					hytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 10' x 20')	100	_= Total Co	over		
Woody vine Stratum (Flot Size. A R L				Indicators of hydric soil	and wetland hydrology must
The second of th	n de la companya da l La companya da la co	The state of the s	, de la company	be present, unless distu	rbed or problematic.
The state of the s	0	= Total Co	over	Hydrophytic	
1 April 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	of Biotic C	rust <u>C</u>	<u>)</u>	Vegetation Present? Yes	No
Remarks: 5:4e 15 dominated by	valau	nd ve	aetah	'BM,	
	-1		0		
1					

SOIL

Profile Desc	cription: (Describe to the de	epth needed to document the indicator or	confirm the absence of indicators.)
Depth	Matrix	Redox Features	
(inches)	Color (moist) %		Loc ² Texture Remarks
0-13	-1.54R4/1 100		- SCL rocks
	````		
<del></del>			
<del></del>			
Type: C=C	oncentration, D=Depletion, RI	M=Reduced Matrix, CS=Covered or Coated	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
		Il LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
Histosol	I (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic E	pipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
	istic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
	en Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
	d Layers (A5) (LRR C) uck (A9) (LRR D)	Depleted Matrix (F3) Redox Dark Surface (F6)	Other (Explain in Remarks)
	d Below Dark Surface (A11)	Depleted Dark Surface (F7)	
	ark Surface (A12)	Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)	Vernal Pools (F9)	wetland hydrology must be present,
Sandy C	Gleyed Matrix (S4)		unless disturbed or problematic.
Restrictive	Layer (if present):		
Type:			
Depth (in	iches):		Hydric Soil Present? Yes V No
Remarks:	A low chreni	a man I so loss in di	he matrix is indicative
of h.	Aure smil emil	i-ipol: (corps 1981).	
,	your series	Costs 110 12.	
IYDROLO	)GY		
Wetland Hy	drology Indicators:		
<u>Primary Indi</u>	cators (minimum of one require	red; check all that apply)	Secondary Indicators (2 or more require
Surface	Water (A1)	Salt Crust (B11)	Water Marks (B1) (Riverine)
	ater Table (A2)	Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)
Saturati	· ·	Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)
	Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
	nt Deposits (B2) (Nonriverine		iving Roots (C3) Dry-Season Water Table (C2)
	posits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	
	Soil Cracks (B6)	Recent Iron Reduction in Tilled S	-
	ion Visible on Aerial Imagery (		Shallow Aquitard (D3)
Field Obser	Stained Leaves (B9)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
		No Donth (inches):	
	ter Present? Yes	No Depth (inches):	-
MINERAL FALL	e Present? Tes	No Depth (inches):  No Depth (inches):	-
Water Table	resent res	No v Depth (inches):	_   Wetland Hydrology Present? Tes No _
Saturation F			·
Saturation F	pillary fringe)	monitoring well, aerial photos, previous inspe	lections), if available:
Saturation F	pillary fringe)	monitoring well, aerial photos, previous inspe	ections), if available:
Saturation F (includes ca Describe Re	pillary fringe) ecorded Data (stream gauge, i	indicators cut	

Project/Site: McDonal Parcel Development/5460 King	Road	City/Cou	nty: Loomis/	Placer Sampling Date: 2017-12-15
Applicant/Owner: Ms. Morgan McDonald				
The first term of the first term of the first state of the first term of the first t				nge: Section 9, T11N, R7E
Landform (hillslope, terrace, etc.): hills language				
Subregion (LRR): C				
Soil Map Unit Name: 106-Andregg coarse sandy loam,				NWI classification: None
Are climatic / hydrologic conditions on the site typical for this				(If no, explain in Remarks.)
				<b>B</b>
Are Vegetation N, Soil N, or Hydrology N s				"Normal Circumstances" present? Yes No
Are Vegetation N, Soil N, or Hydrology N n SUMMARY OF FINDINGS – Attach site map				eded, explain any answers in Remarks.)  ocations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes N  Yes N		ls	s the Sampled lithin a Wetlan	I Area nd? Yes No
Remarks: Date point Treprese Date point is aljacent to  VEGETATION - Use scientific names of plan		eme	rds m wed sh	valley oak wootlant.
	Absolute	Domini	ant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 15 X 2-5)	4 - 4 - 5 - 4 - 4 - 4	Specie	s? Status	Number of Dominant Species
1. Characters le profe	70	<del>- 3</del>	- FACU	That Are OBL, FACW, or FAC: (A)
2. Jugleus californica			FALU	Total Number of Dominant 5
	1,1000		48. (1. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: 16' 12')	25	= Total	Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3.	4			OBL species x 1 =
4.				FACW species x 2 =
5.		- <u> </u>		FAC species x 3 =
Herb Stratum (Plot size: 10 x 20)		_= Total	Cover	FACU species x4 =
1. Cichorium Intybus	7	N	FALU	UPL species x5=
2 Cynosurus echinatus	10	Y		Column Totals: (A) (B)
3. Tardous pychocephalus	5	N		Prevalence Index = B/A =
4. Beranium molle	90.	N		Hydrophytic Vegetation Indicators:
5. Stone 5 diandres	<b>30</b>	Y		N Dominance Test is >50%
6.	-			MMPrevalence Index is ≤3.01
7.		- Viv.		Norphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8.			W-01101-01101-010	Problematic Hydrophytic Vegetation (Explain)
50: 30.5 20: 6.2	61	_ = Total	Cover	
Woody Vine Stratum (Plot size:)   1. Robus comeaniacus	ති	Y	FAC	¹ Indicators of hydric soil and wetland hydrology must
		***************************************		be present, unless disturbed or problematic.
	·	= Total	Cover	Hydrophytic
on consistent of the designation of the temporal of temporal of the temporal of tempor				Vegetation
	r of Biotic C			Present? Yes No V
Remarks: Dominated by upland	Veae	techi	on.	
				4

epth nches)	ription: (Describe to	the depth	needed to docur	nent the indicator	or confirm	the absence	of Indicators.)	
ichael	Matrix			x Features			<b>.</b> .	
	Color (moist)	<u> %</u> _	Color (moist)	<u>% Type'</u>	<u>Loc²</u>	Texture	Remarks	
-3_	7.54R3/1	100		proc. proc.		<u> </u>		
-12	7.5423/4	100		**************************************	<u> </u>	<u>SL</u>		
	-							
		······································					Annual Report Colonia Annual Annual Annual Report Colonia Colo	
			Service of Manager Co	Carred or Conta	d Cand Ca	nina ² l o	cation: PL=Pore Lining, M=Matrix.	
	oncentration, D=Deple				u Sanu Gi		s for Problematic Hydric Solis ³ :	
Histosol	, , ,	D.O 10 a.i a.	Sandy Red				Muck (A9) (LRR C)	
-	pipedon (A2)		Stripped Ma				Muck (A10) (LRR B)	
Black His			Loamy Muc	ky Mineral (F1)			ced Vertic (F18)	
	n Sulfide (A4)			yed Matrix (F2)		,	Parent Material (TF2)	
	Layers (A5) (LRR C)	)	Depleted M			Other	(Explain in Remarks)	
_	ick (A9) (LRR D)	/A.4.4.\		k Surface (F6) ark Surface (F7)				
	d Below Dark Surface ark Surface (A12)	(A11)		ressions (F8)		3Indicators	of hydrophytic vegetation and	
=	lucky Mineral (S1)		Vernal Pool			wetland hydrology must be present,		
	leyed Matrix (S4)		numera Paritati Gar				disturbed or problematic.	
	Layer (if present):					7		
istrictive L	may or (ii broweris).					1		
Type:	None		etionetti				•	
Type: Depth (inc	None ches): NIA				n.	Hydric Sol		
Туре:	None chos): N/A Low Chro	esna	0	less 1787	the D.	Hydric Sol		
Type: Depth (incomarks:	None chos): N/A Low Chro journe soil		0	•	the D.			
Type:	None chos): N/A Low chro jdure soil  GY drology Indicators:	cond	ihions (c	1881 2gna	the D	matri	x is indicative	
Type:	None  ches): N/A  Low Chro  Jdwle Soil  GY  drology Indicators: cators (minimum of on	cond	check all that app	CBPI 29noi	the D.	matri Seco	modery Indicators (2 or more required)	
Type:	Ches): N/A  Low Chro  John Soil  GY  drology Indicators: cators (minimum of on  Water (A1)	cond	check all that app	(B11)	the D.	matri Seco	endary indicators (2 or more required)  Water Marks (B1) (Riverine)	
Type:	None ches): N/A Low Chro jderte Soil  GY drology Indicators: cators (minimum of on Water (A1) ater Table (A2)	cond	check all that app  Salt Crust  Biotic Cru	ly) (B11) st (B12)	the Da	matri Seco	ndary indicators (2 or more required)  Nater Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)	
Type:	None  ches): N/A  Low Chro  jderte Soll  GY  drology Indicators: cators (minimum of on  Water (A1) ater Table (A2) on (A3)	e required;	check all that app  Salt Crust Biotic Cru Aquatic tn	(b) (B11) st (B12) evertebrates (B13)	the Da	Seco	endary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)	
DROLO  DROLO  otland Hydrary India  Surface  High Water Mater Mate	Ches): N/A  Low Chro  Jore Soil  GY  drology Indicators: cators (minimum of on  Water (A1) ater Table (A2) on (A3)  larks (B1) (Nonriverir	ne required;	check all that app  Salt Crust Biotic Cru Aquatic in Hydrogen	ly) (B11) st (B12) evertebrates (B13) Sulfide Odor (C1)		Seco	endary indicators (2 or more required)  Vater Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Patterns (B10)	
DROLO  ptland Hydrary Indic Surface High Wa Saturatic Water M Sedimer	Ches): N/A  Low Chro  John Chro	ne required:	check all that app  Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized i	iv) (B11) st (B12) evertebrates (B13) Sulfide Odor (C1) Rhizospheres along	Living Roo	Seco	endary indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Oriff Deposits (B3) (Riverine)	
DROLO  otland Hyd mary Indic Surface High Water M Sedimer Drift Dep	Ches): N/A  Low Chro  Jore Soil  GY  drology Indicators: cators (minimum of on  Water (A1) ater Table (A2) on (A3)  larks (B1) (Nonriverir	ne required:	check all that app  Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized i	ly) (B11) st (B12) evertebrates (B13) Sulfide Odor (C1)	Living Roc	Seco	Indary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)	
DROLO  Type:  Depth (inc marks:  F  DROLO  Type:  Type:  DROLO  Type:  Type:  Type:  Type:  DROLO  Type:  T	Ches): N/A  Low Chro  Jdwle Soil  GY  drology Indicators: cators (minimum of on  Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriverin nt Deposits (B2) (Nonriverin posits (B3) (Nonriveri	ne required;	check all that app Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized i	iv)  (B11) st (B12) evertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Living Roc	Seco	Indary 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)	
DROLO  Pariand Hydrox  Surface  High Water M  Sedimer  Drift Der  Surface  Inundati	Ches): N/A  Ches): N/A  Ches): N/A  Ches  Ches	ne required;	check all that app  Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized in Presence Recent inc	iv)  (B11) st (B12) svertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tille	Living Roc	Seco	Indary 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)  Saturation Visible on Aerial Imagery (C	
DROLO  Type:  Depth (incomarks:  DROLO  Type:  Type:  DROLO  Type:  Type:  DROLO  Type:  Type	ches): N/A  Ches): N/A  Ches): N/A  Ches  Ches	ne required; ne) riverine) ine)	check all that app  Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized in Presence Recent in Thin Mucl Other (Ex	iy)  (B11) st (B12) evertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tille k Surface (C7) plain in Remarks)	Living Roc 4) d Soils (C6	Seco	wis indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Orift Deposits (B3) (Riverine)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C8)  Shallow Aquitard (D3)	
DROLO  ptland Hydinary India Surface High Was Saturatic Water M Sedimer Drift Der Surface Inundati Water-Seld Obser	ches): N/A  Ches): N/A  Ches): N/A  Ches): N/A  Ches  Ches	ne required; ne) riverine) ine) nagery (B7)	check all that app Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized in Presence Recent inc Thin Muci	iy)  (B11)  st (B12)  overtebrates (B13)  Sulfide Odor (C1)  Rhizospheres along of Reduced Iron (C  on Reduction in Tille k Surface (C7)  plain in Remarks)	Living Roc 4) d Soils (Ce	Seco	wis indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Orift Deposits (B3) (Riverine)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C8)  Shallow Aquitard (D3)	
DROLO  ptland Hydinary India Surface High Was Saturatic Water M Sedimer Drift Der Surface Inundati Water-Seld Obser	ches): N/A  Ches): N/A  Ches): N/A  Ches): N/A  Ches  Ches	ne required: ne) riverine) nagery (B7)	check all that app Salt Crust Biotic Cru Aquatic in Hydrogen Oxidized Presence Recent in Thin Mucl Other (Ex	iy)  (B11) st (B12) evertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (Con Reduction in Tille k Surface (C7) plain in Remarks)	Living Roo 4) d Soils (Co	Seco	Andary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Orift Deposits (B3) (Riverine)  Orainage Patterns (B10)  Ory-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C8)  Shallow Aquitard (D3)	

Project/Site: McDonal Parcel Development/5460 King F	Road CitylC	: :huntu:   namis/P	lacer	Sampling Date: 2017-12-15
Applicant/Owner: Ms. Morgan McDonald	toda onyo	ounty. <u>Leginia/1</u>		Sampling Point:
	Coatle	n Township Don	ge: Section 9, T11N,	
Investigator(s): Patrick Martin  Landform (hillslope, terrace, etc.): hillslope				
• • • • • • • • • • • • • • • • • • • •				
Subregion (LRR): C				
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2		,		
Are climatic / hydrologic conditions on the site typical for this t				/
Are Vegetation, Soil, or Hydrology sig				present? Yes VNo
Are Vegetation Soil, or Hydrology nat	urally problema	atic? (If nee	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map si	nowing sam	ipling point lo	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes No				
		Is the Sampled within a Wetlan		✓ No
Wetland Hydrology Present? Yes No		within a wellan	ur. 198	140
Remarks: Data point represents	riparian	welland	veactation	n in a glassie
Goded cohomeral stream. The	epheme	ral stream	m originate	5. I'm the stilled
eroded ephemeral stream. The area and drains to the pond.	. The sh	ream ent	ers a culve	rt before it b
VEGETATION – Use scientific names of plants		ratual s	i frect Ma	
		ninant Indicator	Dominance Test wor	ksheet:
	% Cover Spe	cies? Status	Number of Dominant	Species
1. Soldy gooddingil	<u> </u>	FACW FACW	That Are OBL, FACW	, or FAC: (A)
2. Populus fremanti		C FAC	Total Number of Domi	
3. A service of the s		<del></del>	Species Across All Str	rata: (B)
1º 50 1º 20 4	<b>ℤ</b> ಄ = To	tal Cover	Percent of Dominant S	
Sapling/Shrub Stratum (Plot size: 20' x 8')		tal Cover	That Are OBL, FACW	or FAC: (A/B)
1			Prevalence Index wo	rksheet:
2			Total % Cover of:	
3.			OBL species	The state of the s
<b>4. 5.</b>				
5.	Q' = To	tal Cover		x4=
Herb Stratum (Plot size: 20 × 8'			UPL species	×5=
1. Runge pulcher	<u> </u>	<u> </u>	Column Totals:	(A) (B)
2. Geranium molle	<u> </u>		Property of the second of the	
3. Cyperus eragroshs.		U FACU U OBL	Hydrophytic Vegetat	x = B/A =
4. I Persicanta hydropiper.		U OBL FAC	Dominance Test	
6. Carex pragracibis	7		NAPrevalence Index	
7. Pluntago lanceolata	5 A	the state of the s	Norphological Ad	aptations ¹ (Provide supporting
8.			data in Remar	ks or on a separate sheet)
60 22.5 20 9	45 = To	tal Cover	N Problematic Hydr	ophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 70' K8')		/ FAC	in the second of	r personale de la representación de la reconstrucción de la reconstrucci
1. Robus armentacus			be present, unless dis	oil and wetland hydrology must sturbed or problematic.
2.	12 = To	<u> </u>		<u> </u>
was progressing and the state of the state o		otal Cover	Hydrophytic Vegetation	
The state of the s	of Biotic Crust	<u> </u>	Present? Y	es No
Remarks: Dominated by hyphop!	hatte vi	ecetation	^-	<u>.</u>
	. 4			A STATE OF THE STA
				And Andrews

•	•	_

		<b>4</b>	
Sampling	Point:	D	

	ubuou: (Describe i	o me depm n	seasa to aocur	nent me muica	ator or co	infirm the abs	ence of indicators.)	
Depth	Matrix			x Features			<u>-</u>	
(inches)	Color (moist)		Color (moist)	<u> % Tvr</u>	<u> </u>	c² Textu		ema <b>rks</b>
0-13	Gley 1 4/N	100			- 15	<u> </u>		
	1,415					<del></del>		<del></del>
	oncentration, D=Depl				coated Sa		² Location: PL=Pore	
-	Indicators: (Applica	able to all LRF					ators for Problematic	-
Histosol	•		Sandy Red				cm Muck (A9) (LRR C	
	oipedon (A2)		Stripped Ma				cm Muck (A10) (LRR	В)
Black Hi	stic (A3) in Sulfide (A4)			ky Mineral (F1) red Matrix (F2)			educed Vertic (F18) ed Parent Material (TF	F2)
	in Suilide (A4) I Layers (A5) (LRR C	2)	Depleted M				ther (Explain in Rema	
	ick (A9) (LRR D)	77		Surface (F6)			array functions in 1 sailer	,
	Below Dark Surface	e (A11)		ark Surface (F7	<b>'</b> )			
	ark Surface (A12)		Redox Dep	ressions (F8)			ators of hydrophytic ve	-
	lucky Mineral (S1)	Year	Vernal Pool	s (F9)			land hydrology must b	
Strong or	Bleyed Matrix (S4)					unl	ess disturbed or proble	ematic.
121,	Layer (if present):	*	_ WL					
Type:			•	٠				<b>V</b>
Depth (inc			-	Start 1			Soil Present? Yes	
Remarks:	The soil a	color f	WILLIAM	Inamu	CARA	wa Mal	m'x (F2) h	1 1 1 1
Indica	for	,,,		U	The Control of		11. A G 2) N	howczou
						÷		
<u> </u>						· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
HYDROLO	GY							
	<b>V</b> I							est.
Wetland Hy	drology Indicators:							5 a.
	J	ne required; ch	eck all that app	y)			Secondary Indicators (	2 or more required)
Primary India	drology Indicators:	ne required; ch	eck all that app				Secondary Indicators (	
Primary Indic	drology Indicators: cators (minimum of o	ne required; ch		(B11)				(Rivetine)
Primary Indic	drology Indicators: eators (minimum of o Water (A1) ater Table (A2)	ne required; ch	Salt Crust Biotic Cru	(B11)	(3)		Water Marks (B1)	(Rivetine) s (B2) (Riverine)
Primary Indic Surface High Wa	drology Indicators: eators (minimum of o Water (A1) ater Table (A2)		Salt Crust Biotic Crust Aquatic In	(B11) st (B12)	•		Water Marks (B1) Sediment Deposits	(Riverine) s (B2) (Riverine) (Riverine)
Primary Indic Surface High Wa Saturatio Water M	drology Indicators: eators (minimum of o Water (A1) ater Table (A2) on (A3)	ine)	Salt Crust Biotic Crust Aquatic In Hydrogen	(B11) st (B12) vertebrates (B1	C1)		Water Marks (B1) Sediment Deposits Drift Deposits (B3)	(Rivetine) s (B2) (Riverine) (Riverine) (B10)
Primary Indic Surface High Wa Saturatic Water M Sedimer	drology Indicators: eators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri	ine) nriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) st (B12) vertebrates (B1 Sulfide Odor (C	C1) long Livin		Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns	(Rivetine) s (B2) (Riverine) (Riverine) (B10) Table (C2)
Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri at Deposits (B2) (No	ine) nriverine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a	C1) long Livin n (C4)	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows (	(Rivetine) s (B2) (Riverine) (Riverine) (B10) Table (C2)
Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators: eators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Non posits (B3) (Nonriveri	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro	C1) long Livin n (C4)	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard (	(Riverine) s (B2) (Riverine) (Riverine) (B10) r Table (C2) (C8) on Aerial Imagery (C9)
Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundati	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Non cosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9)	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible	(Riverine) s (B2) (Riverine) (Riverine) (B10) r Table (C2) (C8) on Aerial Imagery (C9)
Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Der Surface	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Non cosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9)	ine) nriverine) rine) magery (B7)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in s Surface (C7) plain in Remark	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard (	(Riverine) s (B2) (Riverine) (Riverine) (B10) r Table (C2) (C8) on Aerial Imagery (C9)
Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Surface Inundati	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Non cosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9) vations:	ine) nriverine) rine)	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in s Surface (C7) plain in Remark	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard (	(Riverine) s (B2) (Riverine) (Riverine) (B10) r Table (C2) (C8) on Aerial Imagery (C9)
Primary Indic  Surface High Wa  Saturatic Water M Sedimer Drift Dep Surface Inundati Water-S Field Obser	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriver nt Deposits (B2) (Non posits (B3) (Nonriver Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9) vations: er Present? Y	ine) nriverine) rine) magery (B7) es No _ es No _	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in a Surface (C7) plain in Remark ches): ches):	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard ( FAC-Neutral Test	(Riverine) s (B2) (Riverine) (Riverine) (B10) Table (C2) (C8) on Aerial Imagery (C9) (D3) (D5)
Primary Indic  Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Nonriveri Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9) vations: er Present? Y resent? Y	ine) nriverine) rine) magery (B7) es No _ es No _	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Thin Muck Other (Ex	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in a Surface (C7) plain in Remark ches): ches):	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard (	(Riverine) s (B2) (Riverine) (Riverine) (B10) Table (C2) (C8) on Aerial Imagery (C9) (D3) (D5)
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Primary Indic  Surface High Wa V Saturatic Water M Sedimer Drift Dep Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cal Describe Re	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) (Nonriveri nt Deposits (B2) (Non cosits (B3) (Nonriveri Soil Cracks (B6) on Visible on Aerial I stained Leaves (B9) vations: er Present? Present? Y resent? Y pillary fringe) corded Data (stream	ine) nriverine) rine) magery (B7) es No _ es No _ gauge, monito	Salt Crust Biotic Crust Aquatic In Hydrogen Oxidized If Presence Recent Irc Thin Much Other (Ex  Depth (in Depth (in	(B11) st (B12) vertebrates (B1 Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in a Surface (C7) plain in Remark ches): ches): ches): photos, previou	C1) long Livin n (C4) Tilled Sol	g Roots (C3)	Water Marks (B1) Sediment Deposits Drift Deposits (B3) Drainage Patterns Dry-Season Water Crayfish Burrows ( Saturation Visible Shallow Aquitard ( FAC-Neutral Test	(Riverine) s (B2) (Riverine) (Riverine) (B10) Table (C2) (C8) on Aerial Imagery (C9) (D3) (D5)

Project/Site: McDonal Parcel Development/5460 King R	oad City/County: Loomis/F	Placer Sampling Date: 2017-12-15
Applicant/Owner: Ms. Morgan McDonald		State:CASampling Point:
Investigator(s): Patrick Martin	Section, Township, Rar	nge: Section 9, T11N, R7E
Landform (hillstope, terrace, etc.): hillstope		convex, none): Koncave Slope (%): 0-1
Subregion (LRR): C	Lat: 38.823753	Long: -121.20557 Datum: URD83
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2	to 9 percent slopes	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes No _	(If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N sign	nificantly disturbed? Are "	Normal Circumstances" present? Yes No
Are Vegetation N, Soil N, or Hydrology N nat	urally problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sh		ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No_		
	ls the Sampled within a Wetian	등 사용 · · · · · · · · · · · · · · · · · ·
Wetland Hydrology Present? Yes No _	Agent and the second	
Remarks: Ephemeral istreum that the study area and is a tribute defined Jordinary high water mark	supports riparia	in wellands passes though
the study area and is a tribute	any to Dry Cre	ele. The stream has a
define ordinary high water mark	- I and forthills	W werene criteria.
VEGETATION - Use scientific names of plants	V Constant	A the property of the second o
1	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
1.	O OOTOL ORGAN	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2.		
3.		Total Number of Dominant Species Across All Strata:
		Percent of Dominant Species
	= Total Cover	That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: W'x 201)  1. Populus Franchi	15 Y FAC	Prevalence Index worksheet:
	resource and restauration and resource and r	Total % Cover of: Multiply by:
3.		OBL species x1=
4.		FACW species x2 =
<b>5</b>		FAC species x3 =
	15 = Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 10'x 241')	V	UPL species x 5 =
1. Paspechuren ditatentum	ST FAC	Column Totals: (A) (B)
2. Rumey crispus	ID M FAC	Prevalence Index = B/A =
3. Persicaria hydropiper	115 N FACH	Hydrophytic Vegetation Indicators:
4. Cypens eragiosis	The PACE	Dominance Test is >50%
0.		Prevalence Index is ≤3.0¹
		Morphological Adaptations¹ (Provide supporting
8.		data in Remarks or on a separate sheet)
50: 47.5 20: 19	75 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 16x 20)		
1.		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.		pe present, unless distutbed of problematic.
	O = Total Cover	Hydrophytic Vegetation
% Bare Ground in Herb Stratum % Cover o	f Biotic Crust	Present? Yes No
Remarks:	- 1112	
Dominated by hydrophytic	vegetation.	and the second of the second o
The state of the s		
more than the state of the stat		

SOIL		<del></del>		(1) - 1				Sampling Point:
		to the de	pth needed to docur			or confirm	the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	s Type ¹	Loc ²	Texture	Remarks
0-12	10/R 4/1	80	7.542 4/6	20	د	MIPL	SCL	entropies de Aprilia de Salado
¹Type: C=Co	oncentration, D=Dep	letion, RM	<i>M</i> =Reduced Matrix, CS	S=Covere	d or Coat	ed Sand Gr	ains. ² Locati	ion: PL=Pore Lining, M=Matrix.
Hydric Soil II	ndicators: (Applic	able to al	II LRRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils³:
Histosol (	(A1)		Sandy Red					ck (A9) (LRR C)
	ipedon (A2)		Stripped Ma					ck (A10) (LRR B)
Black His	• •		Loamy Muc	-				Vertic (F18)
	n Sulfide (A4)		loamy Gley		. (F2)		1000-01	ent Material (TF2)
	Layers (A5) (LRR (	(د	✓ Depleted M		(EE)		Other (Ex	rplain in Remarks)
	ck (A9) (LRR D) I Below Dark Surface	o /A11)	Redox Dark					
	rk Surface (A12)	B (A 1 1)	Redox Dep				3Indicators of	hydrophytic vegetation and
	lucky Mineral (S1)		Vernal Pool		1 0)			drology must be present,
	leyed Matrix (S4)		Annual Collins - are	, <b>.</b> ,			•	urbed or problematic.
	ayer (if present):						T	
Type:	None							/
Depth (inc			(Participal State of Control of C				Hydric Soil Pr	resent? Yes No
Remarks: p which in the	reminent v fulfills h matrix o	redox ydric ind c	: concentral soil indications porc	iens ator, lining	are Res of	prese	ton a encentra	Depleted Matrix. hiors are present unds.
1YDROLO	GY							
Wetland Hyd	irology Indicators:							
	THE RESIDENCE OF THE PARTY OF T	<u>ne requir</u>	ed; check all that app	<u>(v)</u>	***************************************			ary Indicators (2 ôr more required)
✓ Surface \	Water (A1)		Salt Crust					er Marks (B1) (Riverine)
	ter Table (A2)		Biotic Cru					liment Deposits (B2) (Riverine)
Caturatio	- (A3)		Aquatic In	wadahrata	ac (B13)		✓ D≥6	Denosits (B3) (Riverine)

		<i>v</i>	0			
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one required; ch	eck 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 Invertebr	ates (B13)		✓ Drift Deposits (B3) (Riverine)		
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide	Odor (C1)		Drainage Patterns (B10)		
Sediment Deposits (B2) (Nonriverine)	✓ Oxidized Rhizosp	heres along Livi	ng Roots (C3)	Dry-Season Water Table (C2)		
Drift Deposits (B3) (Nonriverine)	Presence of Red	uced iron (C4)		Crayfish Burrows (C8)		
✓ Surface Soil Cracks (B6)	Recent Iron Redu	iction in Tilled Sc	oils (C6)	Saturation Visible on Aerial Imagery (C9)		
Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface	e (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):	<u> </u>				
Water Table Present? Yes No	Depth (inches):	10				
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	<u> </u>	Wetland Hy	drology Present? Yes No		
Describe Recorded Data (stream gauge, monito	oring well, aerial photos	previous inspec	tions), if availa	ble:		
Remarks:	AAL :: AAA	- la el-	c. M.	back mink in mud.		
A make bulle (A2) is a present at la jacks below the sail surface						
and soil is saturated (	A3) to the	surface	- Oxi	lized whizospheres (C3)		
are present along living						
Drift Deposits (B3) (river	. \ \			BIO) are also present.		
•	-	v		•		

Project/Site: McDonal Parcel Development/5460 King Road	City/County: Loomis/P	lacer	Sampling Date: 2017-12-15
			Sampling Point: LO
Investigator(s): Patrick Martin	Section, Township, Ran	ge: Section 9, T11N,	R7E
Landform (hillslope, terrace, etc.): Lillslope			
Subregion (LRR): C Lat:	38.823729	Long: -121. 2056	ZI Datum: NAD93
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2 to 9			cation: None
Are climatic / hydrologic conditions on the site typical for this time o			
Are Vegetation N, Soil N, or Hydrology N significan			present? Yes V No
Are Vegetation N, Soil N, or Hydrology N naturally		eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map show		-	•
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No No	- Is the Sampled		
Hydric Soil Present?  Wetland Hydrology Present?  Yes No	within a Wetland	d? Yes	No V
Remarks: No. 1 15 Incoled in	ichiachth ac	sike ender	east to see
Remarks: Destar point is located in epheneval stream with riparie although the data point lacks hydro	in wetlands.	Hydric soils	are present,
athough the data point lacks hydro	phytic vegeteets	on an a wen	and hy one tolly.
VEGETATION - Use scientific names of plants.			anggagala sa kapatan sa S
Absol Tree Stratum (Plot size: 20 x 20)  Absol	ute Dominant Indicator ver Species? Status	Dominance Test work	
1. Quereus wistrent. 18		Number of Dominant S That Are OBL, FACW,	
2.	1000	Total Number of Domi	nont
3.		Species Across All Str	- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
4 The second sec		Percent of Dominant S	Species 🗥
Sapling/Shrub Stratum (Plot size: Zo', 20')	> = Total Cover	That Are OBL, FACW,	or FAC: 60 (A/B)
	Y FAC	Prevalence Index wo	rksheet:
2.		Total % Cover of:	1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2007) 1 (2
3.		OBL species	[[[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
4.			X2=
5.			×3= ×4=
Herb Stratum (Plot size: 20' N20')	= Total Cover		
1. Pastbalung, scilatatum 2	D M FAC	Column Totals:	
2. Rumondon ductivalon 35			
3. Romer crispus			x = B/A =
4. Beranium molle 12		Hydrophytic Vegetat	
5. Wisher sativa 5	M FACO	Dominance Test i	
6. Eypens engrosts 10	N FACW	△APrevalence Index	
7.		data in Remark	aptations¹ (Provide supporting ks or on a separate sheet)
8	7 - 2745	1 1	ophytic Vegetation¹ (Explain)
50: 43.5 20(17.4 8-	= Total Cover		
100 miles and the second of th	i sauga sa		oil and wetland hydrology must
2.		be present, unless dis	turbed or problematic.
	Total Cover	Hydrophytic	ø
% Bare Ground in Herb Stratum 13 % Cover of Bio	tic Crust	Vegetation Present? Y	es No
		The Control of the Control	
Remarks: Dominated by upland ve	Jeranon.		
		¥	

Profile Descrip	otion: (Describe t	o the depth r	needed to docu	nent the i	ndicator	or confirm	n the absence of indicators.)
Depth _	Matrix	-	Redo	x Features		-	
(inches)	Color (moist)		Color (molst)	%	Type ¹	Loc²	Texture Remarks
009	10412 4/1	100	projector -	-			SCL
9-13	7.5 3/2	100	encontain-		*******	********	SL_
,							
<del></del>	<del></del>		<del></del>		***************************************		
				·			
						-	
¹Type: C=Cond	centration, D=Deple	etion RM=Re	duced Matrix C	S=Coverer	or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.
	licators: (Applica					o ound on	Indicators for Problematic Hydric Solis ³ :
Histosol (A			Sandy Red		·		1 cm Muck (A9) (LRR C)
Histic Epipe	•		Stripped Ma				2 cm Muck (A10) (LRR B)
Black Histle			Loamy Muc		(F1)		Reduced Vertic (F18)
Hydrogen S	Sulfide (A4)		Loamy Gle	ed Matrix	(F2)		Red Parent Material (TF2)
	ayers (A5) (LRR C	)	Depleted M				✓ Other (Explain in Remarks)
	(A9) (LRR D)		Redox Dark				
1 — .	elow Dark Surface	(A11)	Depleted D				3
1	Surface (A12)		Redox Dep		-8)		³ Indicators of hydrophytic vegetation and
	ky Mineral (S1) yed Matrix (S4)		Vernal Poo	is (F9)			wetland hydrology must be present, unless disturbed or problematic.
	/er (if present):			······································			T T T T T T T T T T T T T T T T T T T
	None						
Depth (inche	1 A		-				Hydric Soil Present? Yes No
Damadas	To the second se		<u> </u>			· · · · · · · · · · · · · · · · · · ·	
R		reviewa	4	or le			u matrix is indicative
of hyd	bric soil	condit	s) enei-	2000	(58P1		
1				/		•	
			·				
HYDROLOG'	Y						
Wetland Hydro	ology Indicators:						
1	ors (minimum of or	e required; cl	heck all that app	γ)			Secondary Indicators (2 or more required)
Surface W			Salt Crust				Water Marks (B1) (Riverine)
High Water	, ,		Biotic Cru	` '			Sediment Deposits (B2) (Riverine)
Saturation			Aquatic In		s (B13)		Drift Deposits (B3) (Riverine)
1	ks (B1) (Nonriveri	ne)	Hydrogen				Drainage Patterns (B10)
1	Deposits (B2) (Non					Living Roo	ots (C3) Dry-Season Water Table (C2)
	its (B3) (Nonriver		Presence				Crayfish Burrows (C8)
	il Cracks (B6)				•	d Soils (C6	
	Visible on Aerial Ir	nagery (B7)	Thin Mucl				Shallow Aquitard (D3)
	ned Leaves (B9)	• • • •	Other (Ex				FAC-Neutral Test (D5)
Field Observa	tions:						
Surface Water	Present? Ye	s No	Depth (in	ches):			
Water Table Pr			Depth (in			(	
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No							
(includes capilla	ary fringe)						
Describe Reco	rded Data (stream	gauge, monito	oring well, aerial	photos, pr	evious ins	pections),	if available:
Remarks:	vo wetle	2	didacy	indic	ator	ملہ 5	tected.
<b>'</b>	VB WEILE	ne y	0000				ACCICUS.
1							
							,

Project/Site: McDonal Parcel Development/5460 King Road City/County:	Loomis/Placer Sampling Date: 2017-12-15
Applicant/Owner: Ms. Morgan McDonald	
	nship, Range: <u>Section 9, T11N, R7E</u>
Landform (hillslope, terrace, etc.): hillslope Local relief (c	** · · · · · · · · · · · · · · · · · ·
Subregion (LRR): C Lat: 39.92379	
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2 to 9 percent slopes	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	
Are Vegetation N, Soil N, or Hydrology N significantly disturbed?	
Are Vegetation N, Soil N, or Hydrology N naturally problematic?	
SUMMARY OF FINDINGS – Attach site map showing sampling	
Hydrophytic Vegetation Present? Yes No le the	
13 010	Sampled Area a Wetland? Yes No
Wetland Hydrology Present? Yes No	a wetland? Yes No
Remarks: Upland point in Arrigated pasture irrigated with sprinklers which are act	is not a wetland. Site is rive through the dry-season.
VEGETATION – Use scientific names of plants.	2000年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1980年,1
Tree Stratum (Plot size: 25' \$20')  Absolute Dominant I % Cover Species?	Chaire   Committee of the Committee of t
	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.	Total Number of Dominant
3. The desired state of the sta	Species Across All Strata: (B)
4	Percent of Dominant Species That Are ORL FACON or FACO
Sapling/Shrub Stratum (Plot size: 26 k 20')	That Are OBL, FACW, or FAC: (A/B)
1.	Prevalence Index worksheet:
2.	Total % Cover of: Multiply by:
3.	OBL species x 1 =
	FACW species x2 =
5.	FAC species
Herb Stratum (Plot size: 20' x 20')	UPL species x 5 =
1. Paspalum dilutatum 50	Column Totals: (A) (B)
2. Trifolium dublum 15 M	Orl
3. Consider dadglen 25 Y	Prevalence Index = B/A =
	Hydrophytic Vegetation Indicators:
5. P神神如 tago lanceolata 8 N	Dominance Test is >50%
6	Prevalence Index is ≤3.01
7. Commence of the commence of	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
8	Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 20' x20')	The second of the second secon
1.	Indicators of hydric soil and wetland hydrology must
2.	be present, unless disturbed or problematic.
O = Total Cove	1 Aramakatan
% Bare Ground in Herb Stratum % Cover of Biotic Crust	Vegetation Present? Yes No
Dominated by upland vegetition.	
V	

Remarks:

**HYDROLOGY** 

Papth   Markix   Redox Features   Remarks   Type:   Color (molst)   %   Type:   Loc   Texture   Remarks   Texture	10116 D620	cription: (Describe t	to the depth	n needed to docum	ent the indicator	or confirm th	e absence of	indicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Stocation: PL=Pore Lining, M=Matrix, Plant Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Hydrophytic vegetation and wetland hydrology must be present,   Indicators for Hydrophytic vegetation and wetland hydrology must be present,   Indicators for Hydric Hydric Soil Present?   Yes No Acustic Invertebrates (B13)   Indicators for Hydric Soil Present?   Yes No Acustic Invertebrates (B13)   Indicators for Hydrophytic vegetation Hydric Soil Present?   Indicators for Problematic Hydric Soil Riverine)   Indicators for Hydric Hydric Soil Riverine)   Indicators for Hydric Hydric Soil Riverine)   Indicators for Hydric Hydric Soil Present?   Yes No Acustic Riverships   Indicators for Hydric Hydric Soil Riverine)			-					
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.			%	Color (moist)	% Type'			Remarks
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)	2-14	104K 3/3	low_		Name display		<u> </u>	
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)								
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)								
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)								
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)	<del></del>				The state of the s	·	<del></del>	
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)			-			·		
Indicators: (Applicable to all LRRs, unless otherwise noted.)   Histosol (Af)						·		
Indicators (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Histosol (Af)								
Indicators (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Histosol (Af)				Deduced Matrix CC			21 0001	an DieDara Lining Mahiatriy
Histosol (A1)						ed Sand Grain		
Histic Epipedon (A2)  Black Histic (A3)  Black Histic (A3)  Black Histic (A3)  Loamy Mucky Mineral (F1)  Hydrogen Sulfide (A4)  Loamy Mucky Mineral (F1)  Reduced Vertic (F18)  Red Parent Material (TF2)  Stratified Layers (A5) (LRR C)  Depleted Matrix (F2)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Vernal Pools (F9)  Verland Hydrology Indicators:  Verland Hydrology I	-		abio to un a					•
Black Histic (A3)	_	• •						- · · ·
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks)  1 or Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix		• • •					Reduced	Vertic (F18)
1 cm Muck (A9) (LRR D)				Loamy Gley	ed Matrix (F2)			
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Wetland hydrology must be present, unless disturbed or problematic.  Setrictive Layer (if present):  Type: New Depth (Inches): NIA Hydric Soil Present? Yes No Memarks:  We Water (A1) Salt Crust (B12) Sediment Deposits (B2) (Riverine)  Surface Water (A1) Salt Crust (B12) Sediment Deposits (B2) (Riverine)  High Water Table (A2) Hydrogen Suifide Odor (C1) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saltration Visible on Aerial Imagery (B7) User Table (C2) Depth (Inches):  Water Table Present? Yes No Depth (Inches):  Water Present? Yes No Depth (Inches):  Water Present? Yes No Depth (Inches):  Water Table Present? Yes Depth (Inches):  Water Table Present? Yes Depth (Inches):  Water Table Present? Yes Depth (Inches):			;)				Other (Ex	plain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8)								
Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present, unless disturbed or problematic.  Sandy Gleyed Matrix (S4) unless disturbed or problematic.  Type:			(A11)		•		3Indinators of I	hudrophytic vegetation and
Sandy Gleyed Matrix (S4)  setrictive Layer (if present):  Type:		• •						
Depth (Inches): NA Hydric Soil Present? Yes No Present? Soil Present? Yes No Present (Inches):				vernari ook	s (1 <i>5)</i>		-	
Type:No						<u> </u>		
Depth (Inches): NA Hydric Soil Present? Yes No Present in Remarks)		• • •						
Vertiand Hydrology Indicators:  Vertiand Hydrology Indicators:		None						_
YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Saturation (A3)  Sediment Deposits (B2) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Sediment Deposits (B3) (Nonriverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Recent Iron Reduction in Tilled Soils (C6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  No Depth (Inches):  Vater Table Present?  Ves No Depth (Inches):				wetalished			Hydric Soil Pr	esent? Yes No
Vetland Hydrology Indicators:  Vermary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Salt Crust (B12)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2) (Riverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water Applicators (2 or more required)  Water Marks (B1) (Riverine)  Depth (Inches):  Water Marks (B1) (Riverine)  Drift Deposits (B2) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  FAC-Neutral Test (D5)  Water Table Present?  Yes No Depth (Inches):  Water Table Present?  Yes No Depth (Inches):	Depth (in	ches): NA					Hydric Soil Pr	esent? Yes No
Vetland Hydrology Indicators:  Vermary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Salt Crust (B12)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2) (Riverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water Applicators (2 or more required)  Water Marks (B1) (Riverine)  Depth (Inches):  Water Marks (B1) (Riverine)  Drift Deposits (B2) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  FAC-Neutral Test (D5)  Water Table Present?  Yes No Depth (Inches):  Water Table Present?  Yes No Depth (Inches):	Depth (in	ches): NA		indicato.	s defect		Hydric Soil Pr	esent? Yes No
Vetland Hydrology Indicators:  Vermary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Salt Crust (B12)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2) (Riverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water Applicators (2 or more required)  Water Marks (B1) (Riverine)  Depth (Inches):  Water Marks (B1) (Riverine)  Drift Deposits (B2) (Riverine)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Saturation Visible on Aerial Imagery (C9)  Water-Stained Leaves (B9)  Other (Explain in Remarks)  FAC-Neutral Test (D5)  Water Table Present?  Yes No Depth (Inches):  Water Table Present?  Yes No Depth (Inches):	Depth (in	ches): NA		indicato.	s defec		Hydric Soil Pr	esent? Yes No
Secondary Indicators   Secondary Indicators   Secondary Indicators (2 or more required)	Depth (in	ches): NA		indicato.	s detec		Hydric Soil Pr	esent? Yes No
Secondary Indicators (Minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Riverine)  Saturation (A3)  Water Marks (B1) (Nonriverine)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2) (Nonriverine)  Drift Deposits (B3) (Nonriverine)  Sediment Deposits (B3) (Nonriverine)  Presence of Reduced Iron (C4)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water Stained Leaves (B9)  Other (Explain in Remarks)  Depth (inches):  Water Table Present?  Yes No Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Vater Table Present?  Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Sediment Deposits (B3) (Riverine)  Drift Deposi	Depth (Incemarks:	ches): NIA		indicator	s defec		Hydric Soil Pr	esent? Yes No
Surface Water (A1) Salt Crust (B11) Water Marks (B1) (Riverine)  High Water Table (A2) Blotic Crust (B12) Sediment Deposits (B2) (Riverine)  Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine)  Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)  Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2)  Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8)  Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)  Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3)  Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5)  Water Table Present? Yes No Depth (Inches):  Vertical Observations:	Depth (Incremarks:	ches): NIA No hydric OGY		indicator	s defec		Hydric Soil Pr	esent? Yes No
High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Other (Explain in Remarks)  Depth (inches): Vater Table Present? Yes No Depth (inches):	Depth (Indexes)  Population of the control of the c	ches): NA  No hydric  GY  drology Indicators:	soil					
Saturation (A3)	Depth (Increments: A Primary Indicates)	ches): NIA  NO HYDRIC  OGY  drology Indicators: cators (minimum of or	soil	check all that apply	v)		Seconda	ry Indicators (2 or more required)
Water Marks (B1) (Nonriverine)	Depth (Increments: A Property of the Property	drology Indicators: cators (minimum of on Water (A1)	soil	: check all that apph Salt Crust	y) (B11)		Seconda Wate	ny Indicators (2 or more required) er Marks (B1) (Riverine)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Surface Water Present? Yes No Depth (Inches): Ves No Presence of Reduced Iron (C4) Crayfish Burrows (C8)	YDROLO Vetland Hy Surface High Wa	drology Indicators:  Water (A1)  ater Table (A2)	soil	: <u>check all that apph</u> Salt Crust Biotic Crus	/) (B11) it (B12)		Seconda Wate Sedi	ry Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine)
Drift Deposits (B3) (Nonriverine)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Surface Water Present?  Yes No Depth (Inches):  Vater Table Present?  Ves No Depth (Inches):	Primary India Surface High Wa Saturati	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3)	soi\	check all that apply Salt Crust Biotic Crus Aquatic Inv	/) (B11) it (B12) vertebrates (B13)		Seconda Wate Sedi Drift	erv Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine)
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) Shallow Aquitard (D3) Shallow Aquitard (D3) FAC-Neutral Test (D5) Shallow Aquitard (D3)	Depth (Incemarks:  /DROLO  /etland Hy  /mary India  Surface High Wa Saturati Water M	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) (Nonriveri	soi\ ne required;	check all that apply Salt Crust Blotic Crus Aquatic Inv	(B11) It (B12) Vertebrates (B13) Sulfide Odor (C1)	red.	Seconda Wate Sedi Drift Drai	ery Indicators (2 or more required) er Marks (B1) (Riverine) ement Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10)
	Depth (Incemarks:  /DROLO /etland Hy rimary India Surface High Wa Saturati Water M Sedimer	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) (Nonriverint Deposits (B2) (Norriveri	soi\ ne required: ine) nriverine)	check all that apply Salt Crust Blotic Crus Aquatic Inv Hydrogen	r) (B11) et (B12) vertebrates (B13) Sulfide Odor (C1) thizospheres along	Living Roots	<u>Seconda</u> Wate Sedi Drift Drei (C3) Dry-	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2)
Vater Table Present?  Yes No Depth (Inches):  Depth (Inches):	/DROLO /etland Hy rimary India Surface High Wa Saturati Water M Sedimen Drift De	ches): NA  De Maric  GY  drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) (Nonriveri int Deposits (B2) (Nor posits (B3) (Nonriver	soi\ ne required: ine) nriverine)	check all that apply Salt Crust Blotic Crus Aquatic Inv Hydrogen 3 Oxidized R	y) (B11) It (B12) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Living Roots	Seconda  Wate Sedi Drift Drai (C3) Cray	ery indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches):	/DROLO /etland Hy rimary India Surface High Wa Saturati Water M Sedimer Drift Der Surface	desi: NA  Design Addition of the control of the con	ne required; ine) nriverine)	check all that apph Salt Crust Blotic Crus Aquatic Inv Hydrogen Oxidized R Presence o	(B11) It (B12) Vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Living Roots	Seconda Wate Sedi Drift Drai (C3) Cray Satu	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rish Burrows (C8) iration Visible on Aerial Imagery (C9)
Vater Table Present? Yes No Depth (Inches):	/DROLO /PROLO /Primary India Surface High Water M Sedimer Drift Der Surface Inundati	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) (Nonriverint Deposits (B2) (Nonriver Soil Cracks (B6) ion Visible on Aerial In	ne required; ine) nriverine)	check all that apply Salt Crust Blotic Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron	(B11) It (B12) Vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Till	Living Roots	<u>Seconda</u> Wate Sedi Drift Drai (C3) Dry- Cray Sate	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) tration Visible on Aerial Imagery (C9)
	YDROLO Yetland Hy Ymary India Surface High Wa Saturati Water M Sedimer Drift De Surface Inundati Water-S	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriverint Deposits (B2) (Nonrivers (B3) (Nonrivers Soil Cracks (B6) ion Visible on Aerial Instained Leaves (B9)	ne required; ine) nriverine)	check all that apply Salt Crust Blotic Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron	(B11) It (B12) Vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Till	Living Roots	<u>Seconda</u> Wate Sedi Drift Drai (C3) Dry- Cray Sate	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) tration Visible on Aerial Imagery (C9)
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No	YDROLO Vetland Hy Primary India Surface High Wa Saturati Water M Sedimer Drift Der Surface Inundati Water-S	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) (Nonriverint Deposits (B2) (Nonriversion Cracks (B6) ion Visible on Aerial Instained Leaves (B9) reations:	ne required; ine) nriverine) rine) magery (B7)	Scheck all that apply Salt Crust Blotic Crust Aquatic Inv Hydrogen Oxidized R Presence C Recent Iro Thin Muck Other (Exp	(B11) st (B12) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C n Reduction in Tilli Surface (C7)	Living Roots	<u>Seconda</u> Wate Sedi Drift Drai (C3) Dry- Cray Sate	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) tration Visible on Aerial Imagery (C9)
	YDROLO Yetland Hy Surface High Wa Saturati Water M Sedimet Drift Del Surface Inundati Water-S Field Obser	ches): NA  De Mydric  GY  drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonriveri nt Deposits (B2) (Nor posits (B3) (Nonriver Soil Cracks (B6) ion Visible on Aerial In Stained Leaves (B9) rvations: ter Present?	ne required: ine) nriverine) rine) magery (B7)	check all that apply Salt Crust Blotic Crust Aquatic Inv Hydrogen 3 Oxidized R Presence 0 Recent Iron Thin Muck Other (Exp	(B11) It (B12) Vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C In Reduction in Till Surface (C7) Italian in Remarks)	Living Roots	<u>Seconda</u> Wate Sedi Drift Drai (C3) Dry- Cray Sate	ery Indicators (2 or more required) er Marks (B1) (Riverine) iment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) tration Visible on Aerial Imagery (C9)

No wetland hydrology indicators detected. Data point watered by sprinklers during the dry-season (Summer Fall).

Project/Site: McDonal Parcel Development/5460 King Road	_ City/Coun	ty: Loomis/P	Placer	_ Sampling Date: _	2017-12-15
Applicant/Owner: Ms. Morgan McDonald					
Investigator(s): Patrick Martin	_ Section, T	ownship, Rar	ige: <u>Section 9, T11N,</u>	R7E	
Landform (hillslope, terrace, etc.): hillslope					
Subregion (LRR): C Lat:	38.82321	<u> </u>	Long: -121, 2042	:04 Datu	m: NAD83
Soil Map Unit Name: 106-Andregg coarse sandy loam, 2 to 9 p			NWI classif		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes_	✓ No_	(If no, explain in	Remarks.)	
Are Vegetation N, Soil N, or Hydrology N significan	tly disturbed?	Are "I	Normal Circumstances"	present? Yes	No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally	problematic?		eded, explain any answ		
SUMMARY OF FINDINGS - Attach site map showing	ng sampli	ng point lo	ocations, transect	s, important fe	atures, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No Ves	– wit		d? Yes	No	ACRAMA CANASA (CANASA )
Remarks: Data point represents a l that supports a obligate wetland lacks hydric soil and wetland hyd uplands.	plant.	and off	a every her hydrophy hors. This	phus grow Nes. Data data poin	e po:nt t represents
VEGETATION – Use scientific names of plants.	19.4	The state of the state of	News		
Tree Stratum (Plot size: 10' x 20')  1. Evenlyphus glabulus 20	er Species	nt Indicator ? Status	Dominance Test wor Number of Dominant S That Are OBL, FACW	Species 🚽	(A)
2	<u> </u>		Total Number of Dom	10 T C C T C C C C C C C C C C C C C C C	
3.			Species Across All St	ata:	(B)
Sapling/Shrub Stratum (Plot size: 10' x 20')	= Total C	over	Percent of Dominant 5 That Are OBL, FACW	Species 75	<u></u> (A∕B)
1,			Prevalence Index wo	rksheet:	
2			Total % Cover of:	Muttipl	<u>v bv:</u>
3.			OBL species		
4. 1000 000 000 000 000 000 000 000 000 0	<del></del>	A tarma (a)	FACW species		
5	= Total C		FAC species		
Herb Stratum (Plot size: 10' x 20')	= 10(8) C	over		x5≡	Table Street Africa
1. Persicania hydropiper 35	man and the second	<u> </u>	Column Totals:	MP 열 등 (The second section 1984)	(B)
2. Paspalum dilatatum 10	MANAGEMENT OF THE PROPERTY OF THE PARTY OF T	<u>FAC</u>			
3. <u>Sefenia pumila</u> 20		- <u>F</u> AL	Prevalence Inde		
4. Cypens eragrostis 10	<u> </u>	- FACW	Hydrophytic Vegetat		
5.	100 same		N Prevalence Index		
7	, or equipment			aptations ¹ (Provide	supporting
R			data in Remar	ks or on a separate	sheet)
50:37.5 20: 15 E5	= Total C	over	№ Problematic Hydr	ophytic Vegetation ¹	(Explain)
Woody Vine Stratum (Plot size: 10'x 20')  1. Rusus armanyarus 10		_ FAC	¹ Indicators of hydric s be present, unless dis		
2.	_	-		turbed or problema	
% Bare Ground in Herb Stratum 35 % Cover of Biotic			Hydrophytic Vegetation Present? Y	es No	
Pamarke:			<u> Maria de Caracteria de La Caracteria de Ca</u>		
Dominated by hydrophytic	vegel	tations			

Sampling Point:	15
tore )	

Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture	Remarks	
0-15	1018 313	100					<u> </u>		
	**************************************		·····						
<del></del>							· · · · · · · · · · · · · · · · · · ·		
¹Type: C=C	oncentration, D=Dep	letion RM=F	Reduced Matrix CS	S=Covered o	or Coated !	Sand Grain	s ² l ocatio	n: PL=Pore Lining, M=Matrix.	
	Indicators: (Application					Odna Orani		Problematic Hydric Soils ³ :	
Histosol	· · ·				•••			-	
	pipedon (A2)		Sandy Redox (S5)				1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)		
	istic (A3)		Stripped Matrix (S6)			Reduced Vertic (F18)			
	en Sulfide (A4)		Loamy Mucky Mineral (F1)						
		Loamy Gleyed Matrix (F2) Depleted Matrix (F3)				Red Parent Material (TF2) Other (Explain in Remarks)			
	d Layers (A5) (LRR 0 uck (A9) (LRR D)	•)	Depleted M		2)		Other (Exp	iam m Remarks)	
		- (444)		-					
	d Below Dark Surface	e (ATT)	Depleted D				31	od on the Alexander Bloom and	
	ark Surface (A12)	Redox Depressions (F8)				³ Indicators of hydrophytic vegetation and			
	Mucky Mineral (S1)		Vernai Pool	Vernal Pools (F9)				wetland hydrology must be present, unless disturbed or problematic.	
	Gleyed Matrix (S4)		····			<del></del>	uniess distur	bed or problematic.	
	Layer (if present):								
Туре:			<del></del>					/	
Depth (in	ches):^ / , -		<del></del>				Hydric Soil Present? Yes No		
IYDROLO	drology Indicators:								
-		na roquirod:	shock all that appl	ν <b>Λ</b>			Cocondon	Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)							Secondary Indicators (2 or more required)		
	Water (A1)	Salt Crust (B11)				Water Marks (B1) (Riverine)			
High W	ater Table (A2)	Biotic Crust (B12)				Sediment Deposits (B2) (Riverine)			
Saturati	on (A3)		Aquatic Invertebrates (B13)				Drift D	Deposits (B3) (Riverine)	
Water N	Marks (B1) (Nonriveri	ne)	Hydrogen Sulfide Odor (C1)				Draina	age Patterns (B10)	
Sedime	nt Deposits (B2) (No	Oxidized F	Oxidized Rhizospheres along Living Roots (C3)				eason Water Table (C2)		
Drift De	posits (B3) (Nonrive	rine)	Presence	of Reduced	Iron (C4)		Crayfi	sh Burrows (C8)	
Surface Soil Cracks (B6) Recent Iron Reduction in Tilled						Soils (C6)		ation Visible on Aerial Imagery (C9)	
<del></del>	ion Visible on Aerial I	magery (B7)	Thin Muck	Thin Muck Surface (C7)				ow Aquitard (D3)	
Water-Stained Leaves (B9)			Other (Explain in Remarks)					Neutral Test (D5)	
						T			
			o <u> </u>	ches).					
Field Obser	lar Present? V	ac N		Cites)		.			
Field Obser Surface Wa	ter Present? Y	es N	Depth (in	ahaa\.					
Field Obser Surface Wal Water Table	ter Present? Y	es N es N	o Depth (in	ches):					
Field Obser Surface Wal Water Table Saturation F	Present? Y	es N es N es N	o Depth (in Depth (in	ches): ches):		Wetland	d Hydrology Pr	esent? Yes No	
Field Obser Surface Wal Water Table Saturation F (includes ca	ter Present? Your Present? Your Present? You pillary fringe) ecorded Data (stream	es N es N	o V Depth (in Depth (in	ches): ches):				esent? Yes No	
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	Present? Y Present? Y pillary fringe) ecorded Data (stream	es N es N gauge, mon	o Depth (in Depth (in itoring well, aerial	ches): ches): photos, prev	vious inspe	ections), if a	vailable:	esent? Yes No	
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	Present? Y Present? Y pillary fringe)	es N es N gauge, mon	o Depth (in Depth (in itoring well, aerial	ches): ches): photos, prev	vious inspe	ections), if a	vailable:	esent? Yes No	
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	Present? Y Present? Y pillary fringe) ecorded Data (stream	es N es N gauge, mon	o Depth (in Depth (in itoring well, aerial	ches): ches): photos, prev	vious inspe	ections), if a	vailable:	esent? Yes No	
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	Present? Y Present? Y pillary fringe) ecorded Data (stream	es N es N gauge, mon	o Depth (in Depth (in itoring well, aerial	ches): ches): photos, prev	vious inspe	ections), if a	vailable:	esent? Yes No	
Field Obser Surface War Water Table Saturation F (includes ca Describe Re	Present? Y Present? Y pillary fringe) ecorded Data (stream	es N es N gauge, mon	o Depth (in Depth (in itoring well, aerial	ches): ches): photos, prev	vious inspe	ections), if a	vailable:	esent? Yes No	

US Army Corps of Engineers

### Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Photo begin filet:   Photo begin filet:   Photo begin filet:   Photo feint filet:   Photo f	Project: McDonald Parcel Development Project Number:	Date: 2017-12-15 Time: 1030 Town: Loomis State: CA
Investigator(s): P. Agrin	Stream: 64wm-1 (Ephenerch stream of wellands)	
Projection: Datum: NAD 3  Potential anthropogenic influences on the channel system: Channel has been encounted by the channel system in the system in the channel system in the channel system in the system in the channel system in the sy	Investigator(s): P. Martin	
Potential anthropogenic influences on the channel system: Channel has been executed by the channel of the channel system: Channel has been executed by the channel of the channel has been executed by the channel for the channel has been executed by the channel has	Y 🛮 / N 🔲 Do normal circumstances exist on the site?	Location Details: 5460 King Rd
Brief site description: Sheeting and compliants on nothing the property doubted and combined should be an annual characterizing the floodplain units.    Dates:	Y ☐ / N ☑ Is the site significantly disturbed?	
Checklist of resources (if available):    Aerial photography	but is likely a natural channel.	em: Channel has been excavately material has been removed to
Active Floodplain Units    Active Floodplain Units   Low Terrace	south to an unnamed stream trists stream that has been channelized up is	, he property and withines
Dates:    Topographic maps	and the same of th	ाण्यां देशकः । विश्वेद्धाः स्थानिक स्थानिक स्थानिक स्थानिक स्थानिक स्थानिक स्थानिक स्थानिक स्थानिक । 
Geologic maps		
Geologic maps Vegetation maps Results of flood frequency analysis Soils maps Rainfall/precipitation maps Results rainfall/paper events and the faceton of HowM Paleo Channel Procedure for 2-, 10-, 10- And 25-year event most and 25-year event most and 25-y		
Soils maps	Geologic maps History	y of recent effective discharges
Rainfall/precipitation maps  Existing delineation(s) for site  Existing delineation(s) for site  Mydrogeomorphic Floodplain Units  Hydrogeomorphic Floodplain Units  Active Floodplain  Active Floodplain units to assist in identifying the OHWM:  Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  Record the floodplain unit and GPS position.  Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  C) Identify any indicators present at the location.  Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  Mapping on aerial photograph  GPS  GPS		로 보다 있다는 그는 사람들이 다른 사람들이 다른 사람들이 되었다. 그는 사람들이 되었다. 그는 사람들이 되었다. 그는 사람들이 다른 사람들이 되었다. 그는 사람들이 다른 사람들
Existing delineation(s) for site most recent event exceeding a 5-year event Global positioning system (GPS) Other studies  Hydrogeomorphic Floodplain Units  Active Floodplain Low Terrace Low Terrace Low Terrace  Low Terrace  Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  Record the floodplain unit and GPS position.  Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  I dentify any indicators present at the location.  Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  Mapping on aerial photograph  GPS		그 그는 이번 그는 그는 그를 가는 사람들이 되었다. 그는 그를 가는 그는 그를 가는 그를 가는 것이 없었다.
Global positioning system (GPS)  Other studies  Hydrogeomorphic Floodplain Units  Active Floodplain  Low Terrace  OHWM Paleo Channel  Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:  1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  a) Record the floodplain unit and GPS position.  b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  c) Identify any indicators present at the location.  4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS		그리는 그들은 그는 그는 그는 그는 것이 되었다. 그는
Other studies  Hydrogeomorphic Floodplain Units  Active Floodplain  Low Terrace  Low Flow Channels  OHWM Paleo Channel  Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:  1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  a) Record the floodplain unit and GPS position.  b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  c) Identify any indicators present at the location.  4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS		ecent event exceeding a 3-year event
Hydrogeomorphic Floodplain Units  Active Floodplain  Low-Flow Channels  OHWM Paleo Channel  Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:  1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  a) Record the floodplain unit and GPS position.  b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  c) Identify any indicators present at the location.  4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS		
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:  1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  a) Record the floodplain unit and GPS position.  b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  c) Identify any indicators present at the location.  4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS		loodplain Units
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:  1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.  2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.  3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.  a) Record the floodplain unit and GPS position.  b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.  c) Identify any indicators present at the location.  4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.  5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS	, Active Floodplain	<b>Low Terrace</b>
<ol> <li>Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.</li> <li>Select a representative cross section across the channel. Draw the cross section and label the floodplain units.</li> <li>Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.         <ul> <li>a) Record the floodplain unit and GPS position.</li> <li>b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.</li> <li>c) Identify any indicators present at the location.</li> </ul> </li> <li>Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>Identify the OHWM and record the indicators. Record the OHWM position via:         <ul> <li>Mapping on aerial photograph</li> <li>GPS</li> </ul> </li> </ol>	Low-Flow Channels	
<ul> <li>vegetation present at the site.</li> <li>2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.</li> <li>3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ul> <li>a) Record the floodplain unit and GPS position.</li> <li>b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.</li> <li>c) Identify any indicators present at the location.</li> </ul> </li> <li>4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS</li> </ul>	Procedure for identifying and characterizing the flood	plain units to assist in identifying the OHWM:
<ol> <li>Select a representative cross section across the channel. Draw the cross section and label the floodplain units.</li> <li>Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.         <ul> <li>a) Record the floodplain unit and GPS position.</li> <li>b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.</li> <li>c) Identify any indicators present at the location.</li> </ul> </li> <li>Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>Identify the OHWM and record the indicators. Record the OHWM position via:         <ul> <li>Mapping on aerial photograph</li> <li>GPS</li> </ul> </li> </ol>		to get an impression of the geomorphology and
<ul> <li>3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ul> <li>a) Record the floodplain unit and GPS position.</li> <li>b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.</li> <li>c) Identify any indicators present at the location.</li> </ul> </li> <li>4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>5. Identify the OHWM and record the indicators. Record the OHWM position via: <ul> <li>Mapping on aerial photograph</li> <li>GPS</li> </ul> </li> </ul>		Draw the cross section and label the floodplain units.
<ul> <li>b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.</li> <li>c) Identify any indicators present at the location.</li> <li>4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>5. Identify the OHWM and record the indicators. Record the OHWM position via:</li> <li>Mapping on aerial photograph</li> </ul>		
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<ul> <li>4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.</li> <li>5. Identify the OHWM and record the indicators. Record the OHWM position via:</li> <li>Mapping on aerial photograph</li> <li>GPS</li> </ul>	[1] - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	the state of the s
5. Identify the OHWM and record the indicators. Record the OHWM position via:  Mapping on aerial photograph  GPS		loodplain units across the cross section
Mapping on aerial photograph GPS		
	·	
LI D'ABANACO CAL COMPANYA LI CALLAN.	Digitized on computer	Other:

Project ID: Development Cross section	D: 04wm-7 Date: 2017-12-15 Time: 1030
Cross section drawing:	
10 feet	[ 2-3 Feet
<u>OHWM</u>	
GPS point: 38.923701, -121.205569	
Indicators:  ☐ Change in average sediment texture ☐ Change in vegetation species ☐ Change in vegetation cover	☐ Other:
Comments: Stream channel has an and is dominated by hydrophyl clay content compared to soil inserts hydric soil criteria.	about break in bank slope es. Soil consists of high above the channel and soil
Floodplain unit:	☐ Active Floodplain ☐ Low Terrace
GPS point:	
Characteristics of the floodplain unit:  Average sediment texture: 5 and clay look  Total veg cover: 100 % Tree: 2 % Shru  Community successional stage:  NA  Early (herbaceous & seedlings)	b: 15 % Herb: 35 %  Mid (herbaceous, shrubs, saplings)  Late (herbaceous, shrubs, mature trees)
Indicators:  ☐ Mudcracks ☐ Ripples ☑ Drift and/or debris ☑ Presence of bed and bank ☐ Benches	Soil development Surface relief Other: Other:
Comments: Dominated by herbeaceous Stream flows north to south a which drawns to a sheam sou	nd fills up may made pond, the of the property.

### Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: McDonald Parcel Development	Date: 2017-12-15 Time: 1000 Town: Loop 15 State: CA
Project Number: Stream: OHWH (Ephoneral Stream w) wettern 25)	Town: Loon State: CA Photo begin file#: Photo end file#:
Investigator(s): P. Martin	Photo Point 8
Y ⋈ / N Do normal circumstances exist on the site?	Location Details: 5460 King R2 Loomis, CA
Y ☐ / N ☑ Is the site significantly disturbed?	Projection:         Datum: NAO83           Coordinates:         38.72.3834,-121.205309
Potential anthropogenic influences on the channel syst a feeted by development since the streeproject site to the she project site to the house water, which drawns to a pont.	em: Channel may have been com appears to Vitert on the collection and drawings of imigation
Brief site description: Ephenneral stream with boundary and drewns south to pond via another unnumed stream system with we	wellands originales near proporty a culvet. Bond drawns south to Hands which drawns to search Rowine.
☐ Vegetation maps       ☐ Result         ☐ Soils maps       ☐ Most r         ☐ Rainfall/precipitation maps       ☐ Gage b	ber:
Active Floodplain  Low-Flow Channels	OHWM Paleo Channel
Procedure for identifying and characterizing the flood	lplain units to assist in identifying the OHWM:
<ol> <li>Walk the channel and floodplain within the study area vegetation present at the site.</li> <li>Select a representative cross section across the channel.</li> <li>Determine a point on the cross section that is character a) Record the floodplain unit and GPS position.</li> <li>Describe the sediment texture (using the Wentworth floodplain unit.</li> <li>Identify any indicators present at the location.</li> <li>Repeat for other points in different hydrogeomorphic for the other points are the other points and the other points are the other point</li></ol>	Draw the cross section and label the floodplain units. istic of one of the hydrogeomorphic floodplain units. class size) and the vegetation characteristics of the loodplain units across the cross section.

- A 1	ı
7 feet	
and and	
exposed 2fe	et
wates	
Ym.	
OHWM	
<u>OHWM</u>	
GPS point: 38.823834, -121.205309	
	•
Indicators:	
Change in average sediment texture	≥ Break in bank slope
Change in vegetation species Change in vegetation cover	Other:
Change in vegetation cover	Uniter.
Comments	- salientes amana, allet
Comments: Abrupt break in banks lop supports wetland vegetation. So and consists of Loany Gleyed Mc	e mare ages of the land of the
supports werend vegetation, so	CINESI TOXING IS MORE COURT
and consists of Loany Giegec and	7~1×.
Tell 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Floodplain unit: Main Low-Flow Channel	☐ Active Floodplain ☐ Low Terrace
GPS point:	
Of 5 point.	
Characteristics of the floodplain unit:	
Average sediment texture: Sandy loam -	· · · · · · · · · · · · · · · · · · ·
	poarse
Total veg cover: 77 % Tree: 20 % Shru	b: 12 % Herb: 45 %
Total veg cover: <u>77</u> % Tree: <u>20</u> % Shru Community successional stage:	b: 12 % Herb: 45 %
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA	b: 12 % Herb: 45 %  Mid (herbaceous, shrubs, saplings)
Total veg cover: <u>77</u> % Tree: <u>20</u> % Shru Community successional stage:	b: 12 % Herb: 45 %
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA	b: 12 % Herb: 45 %  Mid (herbaceous, shrubs, saplings)
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA Early (herbaceous & seedlings)	b: 12 % Herb: 45 %  Mid (herbaceous, shrubs, saplings)  Late (herbaceous, shrubs, mature trees)  Soil development
Total veg cover: 77 % Tree: 20 % Shru Community successional stage: NA Early (herbaceous & seedlings)  Indicators: Mudcracks Ripples	b: 12 % Herb: 45 %  Mid (herbaceous, shrubs, saplings)  Late (herbaceous, shrubs, mature trees)  Soil development  Surface relief
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA Early (herbaceous & seedlings)  Indicators:  Mudcracks Ripples Drift and/or debris	b: 12 % Herb: 45 %  Mid (herbaceous, shrubs, saplings)  Late (herbaceous, shrubs, mature trees)  Soil development  Surface relief  Other:
Total veg cover: 77 % Tree: 20 % Shru Community successional stage: NA Early (herbaceous & seedlings)  Indicators: Mudcracks Ripples Drift and/or debris Presence of bed and bank	b: 12 % Herb: 45 %  ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)  ☐ Soil development ☐ Surface relief ☐ Other: ☐ Other:
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA Early (herbaceous & seedlings)  Indicators:  Mudcracks Ripples Drift and/or debris Presence of bed and bank Benches	b: 12 % Herb: 45 %  ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)  ☐ Soil development ☐ Surface relief ☐ Other: ☐ Other:
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA Early (herbaceous & seedlings)  Indicators:  Mudcracks Ripples Drift and/or debris Presence of bed and bank Benches	b: 12 % Herb: 45 %  ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)  ☐ Soil development ☐ Surface relief ☐ Other: ☐ Other:
Total veg cover: 77 % Tree: 20 % Shru Community successional stage:  NA Early (herbaceous & seedlings)  Indicators:  Mudcracks Ripples Drift and/or debris Presence of bed and bank Benches	b: 12 % Herb: 45 %  ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)  ☐ Soil development ☐ Surface relief ☐ Other: ☐ Other:
Total veg cover: 77 % Tree: 20 % Shru Community successional stage: NA Early (herbaceous & seedlings)  Indicators: Mudcracks Ripples Drift and/or debris Presence of bed and bank	b: 12 % Herb: 45 %  ☐ Mid (herbaceous, shrubs, saplings) ☐ Late (herbaceous, shrubs, mature trees)  ☐ Soil development ☐ Surface relief ☐ Other: ☐ Other:

Project ID: Parcel Develorment Cross section ID: 04wm-2 Date: 2017-12-15 Time: 1000

#### Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: McDonalb Parcel Development	Date: 2017-12-15 Time: 930
Project Number: 17-526	Town: Lowers State: CA
Stream: coulde Pond Copen wester) - OHWM	⁵ Photo begin file#: Photo end file#:
Investigator(s): Patrick Martin	DP03-328
Y 🔀 / N 🗌 Do normal circumstances exist on the site?	Location Details: 5460 king Rd
Y / N / Is the site significantly disturbed?	Projection: Datum: NA033 Coordinates: 38. 823 372, -121. 255 347
Potential anthropogenic influences on the channel syst	em: This pond is an impoundment
located on two ephemeral streams, whippone is periodically channed with vege by recently executive soil and but	tation and soil removed conserved rush. Pond is likely used to trisute
the pasture to provide forcing for ca	<b>370</b>
Brief site description: Small pond is fed with ripevian wetlands. The pond support the margin of the pond. Most of the places wetland regeterion can bis consider pond drains and to an unnamed street	orth fresh energent wellands along and is open water. Open water of the U.S. The
Checklist of resources (if available):	
Aerial photography Stream gag	
Dates: 5   19   2017 Gage num  Topographic maps Period of r	- 1985
[	ecord: y of recent effective discharges
	s of flood frequency analysis
English and the state of the st	ecent shift-adjusted rating
<u> </u>	neights for 2-, 5-, 10-, and 25-year events and the
	ecent event exceeding a 5-year event
Global positioning system (GPS)	and the control of t The control of the control of
Other studies	
Hydrogeomorphic F	Floodplain Units
Active Floodplain	Low Terrace
Low-Flow Channels	OHWM Paleo Channel
Procedure for identifying and characterizing the flood	plain units to assist in identifying the OHWM:
1. Walk the channel and floodplain within the study area vegetation present at the site.	to get an impression of the geomorphology and
2. Select a representative cross section across the channel.	Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is character	
a) Record the floodplain unit and GPS position.	
b) Describe the sediment texture (using the Wentworth	class size) and the vegetation characteristics of the
floodplain unit.	
c) Identify any indicators present at the location.	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
4. Repeat for other points in different hydrogeomorphic f	•
5. Identify the OHWM and record the indicators. Record	
Mapping on aerial photograph  Digitized on computer	GPS Other:
Digitized on computer	Outer.

McDonald Pared Cross section ID: offwm-3 Date: 2017-12-15 Time: 930 Project ID: Project **Cross section drawing:** MWHO open water **OHWM** GPS point: 58.823372, -121, 205347 **Indicators:** Break in bank slope Change in average sediment texture Change in vegetation species
Change in vegetation cover Other: _____ Comments: Pand is dominated by open water hasited with some fresh energed welland regulation, but less than 5% dominance. Where fresh imagent welland regulation is greater than 5%, it. is classified as fresh emergent welland. Floodplain unit: Low-Flow Channel Active Floodplain Low Terrace GPS point: _____ Characteristics of the floodplain unit: Average sediment texture: ______ % Tree: _____ % Shrub: _____ % Herb: ____ Community successional stage: Mid (herbaceous, shrubs, saplings)  $\square$  NA Late (herbaceous, shrubs, mature trees) Early (herbaceous & seedlings) Indicators: Soil development Mudcracks Surface relief Ripples Other: _____ Drift and/or debris Other: Presence of bed and bank Other: Benches **Comments:** 

Appendix C. Representative Photographs



Photo Point 1. Overview of Data Point 1 representative of wetland swale (W-1) (facing north).

Taken on December 15, 2017.



Photo Point 2. Overview of Data Point 2 representative of irrigated pasture in uplands (facing west).

Taken on December 15, 2017.



Photo Point 3. Overview of cattle pond (OHWM 3) and fresh emergent wetland (Data Point 3) (facing west).

Taken on December 15, 2017.



Photo Point 4. Overview of Data Point 4 (red arrow) representative of irrigated pasture in uplands (facing west).

Taken on December 15, 2017.



Photo Point 5. Overview of Data Point 6 representative of irrigated pasture in uplands (facing north).

Taken on December 15, 2017.



Photo Point 6. Overview of Data Point 5 representative of wetlands swale in uplands (facing northeast).

Taken on December 15, 2017.



Photo Point 7. Overview of Data Point 7 representative of uplands in valley oak woodland (facing west).

Taken on December 15, 2017.



Photo Point 8. Overview of Data Point 8 representative of riparian wetland in an ephemeral stream (facing north). Taken on December 15, 2017.



Photo Point 9. Overview of Data Point 9 representative of riparian wetland in an ephemeral stream (facing northeast). Taken on December 15, 2017.



Photo Point 10. Overview of Data Point 10 representative of uplands in irrigated pasture (facing northwest).

Taken on December 15, 2017.



Photo Point 11. Overview of Data Point 11 representative of uplands in irrigated pasture (facing northwest).

Taken on December 15, 2017.



Photo Point 12. Overview of Data Point 12 representative of uplands in irrigated pasture supporting an obligate hydrophyte. Taken on December 15, 2017.

#### Appendix D List of Vascular Plant Species Observed

Appendix D. Wetland Indicator Status for Plant Species Observed in the Survey Area

Scientific Name	Common Name	Wetland Indicator Status ^a
Acer saccharinum	Silver Maple	FAC
Acmispon americanus	American deerweed	UPL
Avena fatua	Wild oats	<b>₩</b>
Bromus diandrus	Ripgut brome	
Bromus hordeaceus	Soft brome	FACU
Carduus pycnocephalus	Italian thistle	<b></b>
Carex praegracilis	Field sedge	FACW
Cenchrus clandestinus	Kikuyu grass	FACU
Centaurea solstitialis	Yellow star thistle	
Cichorium intybus	Chicory	FACU
Convolvulus sp.	Field bindweed	
Cynodon dactylon	Bermuda grass	FACU
Cynosurus echinatus	Bristly dogtail grass	
Cyperus eragrostis	Tall flatsedge	FACW
Dittrichia graveolens	Stinkwort	
Echinochloa crus-galli	Barnyard grass	FACW
Erodium botrys	Broad-leaf filaree	FACU
Eucalyptus globulus	Blue gum	
Festuca myuros	Rattail sixweeks grass	FACU
Geranium molle	Crane's bill geranium	***
Hirschfeldia incana	Short-podded mustard	
Hordeum murinum	Foxtail barley	FACU
Hypochaeris sp.	Cat's ear	FACU
Juglans californica	California walnut	FACU
Juncus occidentalis	Western rush	FACW
Lactuca serriola	Prickly lettuce	FACU
Lemna spp.	Duckweed	OBL
Leontodon saxatilis	Lesser hawkbit	FACU
Ludwigia peploides	Floating primrose willow	OBL
Malva parviflora	Cheeseweed mallow	
Medicago polymorpha	Bur clover	FACU
Paspalum dilatatum	Dallisgrass	FAC
Persicaria hydropiper	Common smartweed	OBL
Pinus muricata	Bull pine	
Pinus sabiniana	Foothill pine	
Plantago lanceolata	English plantain	FAC
Plantago major	Common plantain	FAC
Platanus racemosa	California sycamore	FAC

Scientific Name	Common Name	Wetland Indicator Status ^a
Poa annua	Annual blue grass	FAC
Poa pratensis	Kentucky blue grass	FAC
Populus fremontii	Fremont cottonwood	FAC
Quercus douglasii	Blue oak	
Quercus lobata	Valley oak	FACU
Quercus palustris	Pin oak	
Quercus wislizeni	Interior live oak	
Ranunculus californicus	California buttercup	FACU
Rubus armeniacus	Himalayan blackberry	FAC
Rumex crispus	Curly dock	FAC
Rumex pulcher	Fiddle dock	FAC
Salix gooddingii	Goodding's black willow	FACW
Schedonorus arundinaceus	Tall false rye fescue	FACU
Schoenoplectus spp.	Bulrush	OBL
Setaria pumila	Yellow bristle grass	FAC
Silybum marianum	Milk thistle	
Solanum americanum	Common nightshade	FACU
Sonchus asper	Spiny-leaf sow-thistle	FAC
Torilis arvensis	Field hedge parsley	
Trifolium dubium	Shamrock clover	UPL
Trifolium hirtum	Rose clover	***
Typha latifolia	Common cattail	OBL
Vicia sativa	Garden vetch	FACU
Vitis californica	California grape	FACU
Washingtonia filifera	California fan palm	FAC

Sources: Environmental Laboratory 1987; Lichvar 2016; Baldwin et al. 2012.

Indicator Status Definitions:

OBL = Obligate, almost always occurs in wetlands (>99% probability of occurrence)

FACW = Facultative wetland, usually occurs in wetlands (66%–99% probability)

FAC = Facultative, equally likely to occur in wetlands or nonwetlands (34%–66% probability)

FACU = Facultative upland, usually occurs in nonwetlands but occasionally in wetlands (1%–33%

probability)

UPL = Obligate upland, almost never occurs in wetlands (<1% probability)

-- = No indicator (insufficient information to assign an indicator status)

# Appendix E Aquatic Resources

									STATES OF STREET, STATES OF STATES O
Waters Name	State	Cowardin Code HGM Code	Meas_Type	Amount Units	Waters_Type	Latitude	Longitude	_ocal_Waterwa	way
W-1	CALIFORNIA	R6	Area	0.022 ACRE	DELINEATE	38.8239328	-121.2052846		
W-2	CALIFORNIA	R6	Area	0.022 ACRE	DELINEATE	38.82375885	-121.2055852		
W-3	CALIFORNIA	R6	Area	0.041 ACRE	DELINEATE	38.82361047	-121.2052262		
W-4	CALIFORNIA	PEM	Area	0.022 ACRE	DELINEATE	38.82339758	-121.2053852		
W-5	CALIFORNIA	POW	Area	0.061 ACRE	DELINEATE	38.82339796	-121.2054471		
W-6	CALIFORNIA	R6	Area	0.019 ACRE	DELINEATE	38.82332118	-121.2048813		
W-7	CALIFORNIA	R6	Area	0.007 ACRE	DELINEATE	38.82326146	-121.2056133		

### Appendix F WETS Table

WETS Station: AUBURN, CA													80335 <u>8</u>
Requested years: 1905 - 2017													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	54.5	36.2	45.4	6.94	3.76	8.46	9	0.9					
Feb	58.4	38.9	48.6	5.85	3.00	7.15	8	0.4					
Mar	62.5	41.4	51.9	5.17	2.55	6.29	7	0.4					
Apr	68.3	44.7	56.5	2.64	1.16	3.18	4	0.1					
May	76.5	50.1	63.3	1.23	0.44	1.39	3	0.0					
Jun	85.6	56.4	71.0	0.37	0.00	0.34	1	0.0					
Jul	93.2	61.9	77.5	0.05	0.00	0.00	0	0.0					
Aug	92.0	61.0	76.5	0.07	0.00	0.00	0	0.0					
Sep	86.3	56.8	71.5	0.43	0.00	0.29	1	0.0					
Oct	76.5	50.2	63.4	1.74	0.63	1.89	2	0.2					
Nov	64.0	42.7	53.4	3.97	1.73	4.74	5	0.1					
Dec	55.6	36.8	46.2	5.68	2.79	6.90	7	0.4					
Annual:					28.82	39.75							
Average	72.8	48.1	60.4	-	-	-	-	-					
Total	-	-	•	34.14			49	2.5					
GROWING SEASON DATES													
Years with missing data:	24 deg = 35	28 deg = 39	32 deg = 34										
Years with no occurrence:	24 deg = 60	28 deg = 17	32 deg = 0										
Data years used:	24 deg = 78	28 deg = 74	32 deg = 79										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	No occurrence	1/21 to 1/7: 351 days	3/7 to 12/1: 269 days										
70 percent *	No occurrence	12/31 to 1/29: 394 days	2/25 to 12/11: 289 days										
* Percent chance of the growing season occurring between the Beginning and Ending dates.													
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1905	M1.22		7.43	1.92	2.70	0.00			0. 05				13. 32
1906	M14.10		12.54	M2.66	4.75	1.61			0. 25	Т	2.22	M14. 39	52. 52
1907	M3.61				M0.22		0.00	0.00	0. 00	M0. 73	0.00	M2. 53	7.09
1908	M3.62	M0.84	1.87	0.84	2.57	0.17	Т	0.00	0. 17	2. 42	1.87	3.43	17. 80
1909	23.08	10.24	2.80	0.11	0.02	0.30	0.00	0.00	0. 30	2. 55	6.54	5.82	51. 76
1910	M1,80	M1.35	M4.20	1.80	0.12	0.00	0.00		M0. 63	1. 25	1.49	МЗ. 30	15. 94
1911	20.77	M2.73	6.06	2.03	0.42	0.25			0. 05	0. 46	1.26	0.92	34. 95
1912	3.75	0.27	2.91	1.66	0.90	0.45		0.00	M1. 00	M0. 85		М0. 71	12. 50
1913	M1.00	M0.37	M0.70	1.43	1.22	0.00	0.04	Т	0.	0.	3.52	5.76	14.

1914	12.09	4.55	0.65	1.32	0.76	1.10			00 T	00 1.	0.20	4.34	04 26.
1915	5.33	10.04	1.45	1.02	4.06			0.00		42 T	1.53	6.09	43 29.
1916	M12.13	5.60	2.60	0.35	0.64	т	0.00	Т	M0.	1.	M2.	6.40	52 31.
1917	M4.13	M10.25	M2.36	M3.21	0.23	0.00	0.00	0.00	20	27 0.	54 1.28	3.26	73 24.
1918	1.73	8.89				0.00		0.00	21	00			93
			8.40	M1.43	M0.09				3. 99	M1, 16	M3. 81	M2. 52	32. 02
1919	3.65	14.60	4.60	0.58	0.04				M0. 44	M0. 06	M0. 15	5.15	29. 27
1920	M1.50	1.99	10.63	5.28		M0.41		M0.31	M0. 26	M4. 56	M8. 36	M11. 58	44. 88
1921	M8.29	3.26	M4.93	0.59	M2.44	M0.02			MT	M0. 62	1.55	M9. 74	31. 44
1922	M3.27	M11.71	M7.19	M1.23	M2.56	MT		M0.00		2. 10	4.60	16. 76	49. 42
1923	5.75	1.67	0.54	7.30	0.29	0.39		0.02	2. 02	1. 19	0.20	2.29	21. 66
1924	M2.61	3.43	2.19	0.70	0.12				0. 00	5. 74	2.25	5.80	22. 84
1925	0.80	8.75	2.85	3.90	1.55	0.35		0.00	0. 00		M1. 90	M2. 10	22. 20
1926	M3.35	8.53	0.00	M6.97	0.95	0.00	0.00	0.00	Т	M2. 40	М9. 90	1.65	33. 75
1927	M5.20	M10.70	M2.75	5.30	0.55	0.60	0.00	0.00	Т	1. 85	M4. 85	M4. 95	36. 75
1928	M1.60	M2.45	M10.70	M2.20	0.00	0.00	0.00	0.00	0. 00	0. 30	4.14	4.48	25. 87
1929	2.53	3.35	M3.45	M2.50	Т	M2.64	0.00	0.00	0. 00	0. 00	0.00	7.55	22. 02
1930	7.48	2.15	4.92	2.51	0.26	0.00	0.00	Т	0.	0.	3.58	0.58	22.
1931	4.86	4.36	2.85	0.92	0.95	0.95	0.00	0.00	27	36 2.	4.40	10.	11 31.
1932	4.40	5.39	1.49	3.05	1.80	0.00	0.00	0.00	00 0.	50 T	1.26	15 2.97	94 20.
1933	6.45	1.75	5.75	0.00	2.20	0.00	Т	0.00	00 0.	4.	0.12	9.10	36 29.
1934	5.40	6.27	0.68	0.40	1.00	0.95	0.00	0.00	10 0.	10 2.	4.47	3.45	57 25.
1935	7.42	4.42	4.55	9.30	0.30	0.00	0.00	0.00	25 0.	59 2.	1.82	2.95	46 33.
1936	11.05	16.48	2.52	2.45	0.88	1.04	0.00	0.00	00 0.	80 0.	0.10	4.77	56 39.
1937	M8.20	10.67	10.37	3.02	0,20	1.05	0.00	0.00	00 0.	55 M1.	6.07	4.77	84 45.
1938	4.22	13.90	M7.47	2.08	0.78	0.00	0.00	0.00	00 T	42	2.00	2.35	77 32.
1939	4.16	M2.32	6.07	0.15	2.45	0.00	0.00	0.00	0.	1.	0.48	1.72	80 19.
1940	16.17	11.38	9.21	1.82	0.33	Т	0.00	0.00	73 0.	16	4.05		24
1941	7.82	8.83		5.84					38	1. 90		13. 89	59. 13
			5.01		2.42	0.21	0.02	Т	0. 24	1. 65	3.36	11. 25	46. 65
1942	7.94	7.45	3.08	9.95	4.19	0.00	0.00	0.00	0. 05	0. 62	7.68	M7. 26	48. 22
1943	10.08	3.71	9.36	3.17	0.33	M0.90	0.00	0.00	0. 00	0. 18	1.67	3.40	32. 80
1944	5.07	9.44	3.07	2.56	0.97	0.51	Т	0.00	0. 00	3. 27	6.55	4.00	35. 44
1945	1.28	9.65	5.85	1.45	1.15	1.02	0.00	0.00	0. 03	3. 52	5.24	11. 47	40. 66
1946	1.73	2.93	5.87	0.19	1.12	0.00	0.03	0.00	0. 85	1. 94	5.68	3.22	23. 56
1947	1.45	3.94	7.82	1.10	0.27	1.08	0.00	Т	0.	5.	1.87	1.09	23.

1040	0.07	0.67	- 10						00	33			95
1948	3.07	3.67	6.48	7.06	3.57	0.02	0.00	Т	T	0. 22	2.74	7.47	34. 30
1949	2.96	3.87	11.51	T	0.84	0.00	T	0.11	0. 11	0. 09	2.35	2.23	24. 07
1950	10.61	4.82	5.88	2.39	1.33	0.21	T	T	0. 91	4. 23	13. 92	9.67	53. 97
1951	9.59	4.04	4.07	1.85	3.27	Т	Т	0.00	0.	3.	6.05	10.	42.
1952	15.56	5.11	7.81	1.12	0.55	0.67	0.05	M0.00	04 M0.	60 0.	3.06	10 9.45	61 43.
1953	8.82	0.07	4.23	5.58	1.06	1.28	0.00	0.00	38 0.	05 0.	4.66	2.43	81 28.
1954	6.90	4.98	7.09	3.22	0.37	0.55	0.00	0.27	00 T	81 0.	3.60	9.10	94 36.
1955	6.59	2.71	0.62	4.60	1.06	0.03	0.00	0.00	M0.	28 0.	2.86	M18.	36 38.
1956	13.78	3.96	0.18	3.03	3.41	0.03	Т	0.00	00 0.	85 3.	0.06	78 0.97	10 29.
1957	4.17	6.13	5.87	2.97	5.15	т	0.00	0.00	67 1.	68 1.	2.15	4.64	77 34.
1958	7.67	10.54	10.22	7.22	1.18	0.88	Т	Т	03 M0.	91 0.	0.83	1.32	02 40.
1959	7.48	6.39	2.04	1.85	0.11	0.00	0.00	0.01	40 2.	41 0.	Т	1.94	67 22.
1960	M6.93	8.34	4.50	2.20	0.87	0.00	т	Т	47 0.	00 0.	6.86	1.97	29 32.
1961	2.50	3.33	5.06	2.21	0.71	0.39	Т	0.04	28 0. 31	14 0. 68	3.10	3.38	09 21.
1962	3.19	13.64	3.37	1.91	0.23	0.01	0.02	0.24	0. 14	13. 86	1.44	4.31	71 42. 36
1963	4.11	4.82	5.81	7.70	2.25	0.04	0.00	Т	0. 34	2. 76	8.77	0.77	37. 37
1964	6.37	0.78	2.39	0.59	2.32	0.56	0.00	0.19	0. 04	2. 38	6.61	14. 17	36, 40
1965	6.27	1.16	3.36	6.03	0.23	80.0	0.00	0.53	0. 04	0. 59	6.67	5.29	30. 25
1966	4.29	2.74	1.63	1.31	0.45	0.02	0.10	0.03	0. 05	0. 00	10. 38	6.39	27. 39
1967	11.99	0.88	7.90	6.74	0.42	1.06	0.00	Т	0. 06	1. 86	2.84	3.39	37. 14
1968	5.58	4.99	3.54	0.63	0.83	0.37	0.03	0.73	0. 02	3. 29	6.26	5.58	31. 85
1969	16.97	9,87	2.94	3.67	0.15	0.47	Т	0.00	0. 00	2. 43	2.07	10. 01	48. 58
1970	13.66	2.81	4.02	0.47	0.02	1.11	0.00	0.00	0. 00	2. 48	12. 07	10. 71	47. 35
1971	2.78	0.70	5.51	1.59	1.46	0.40	0.00	Т	0. 51	1. 13	3.08	8.70	25. 86
1972	2.28	3.52	1.18	2.85	0.59	0.22	0.00	0.00	1. 07	2. 13	6.80	4.96	25. 60
1973	13.69	8.57	6.24	0.14	80.0	0.05	0.00	0.00	1. 31	2. 98	12. 34	8.87	54. 27
1974	7.00	3.37	11.00	3.19	0.00	0.56	2.97	T	0. 00	1. 88	2.32	3.01	35. 30
1975	3.00	8.99	8.05	2.83	0.40	0.26	Т	0.65	Т	4. 71	2.41	1.63	32. 93
1976	0.52	2.44	1.48	2.14	0.00	0.04	Т	1.59	1. 36	0. 03	1.75	0.41	11. 76
1977	2,25	2.07	2.08	0.07	2.85	0.00	Т	0.15	0. 48	0. 18	3.49	8.43	22, 05
1978	13.15	5.55	8.17	6.75	0.12	0.01	0.00	0.00	2. 24	0. 00	5.87	1.95	43. 81
1979	7.42	7.34	5.97	2.53	0.74	0.00	0.29	0.00	0. 06	4, 68	3.70	5.60	38. 33
1980	9,93	9.98	4.92	1.96	1.23	0.06	0.89	0.02	0. 01	0. 52	0.72	2.82	33. 06
1981	7.69	2.17	6.81	1.06	1.10	0.00	0.00	0.00	0.	4.	12.	10.	46.

						77					100		
1982	7.77	5.04	10.97	7.60	0,00		0.00	0.00	88	64	05	59	99
		5.04	10.97	7.63	0.00		0.02	0.00	2. 91	6. 42	9.76	8.20	58. 72
1983	7.30	9.22	14.00	6.35	1.16	0.28	M0.00	0.07	1. 03	1. 02	13. 45	10. 99	64. 87
1984	0.65	5.27	2.80	2.40	0.44	0.52	T	0.22	0. 04	3. 18	9.02	2.35	26. 89
1985	0.80	3.14	5.83	0.13	0.00	0.29	0.02	0.19	1. 94	0. 82	8.59	4.08	25. 83
1986	5.31	17.61	7.96	1,27	0.55	0.00	0.00	0.00	3. 98	0. 30	0.93	1.42	39.
1987	4.44	5.20	7.04	0.31	0.38	M0.00	0.00	0.00	0. 00	0. 61	3.62	7.22	33 28.
1988	4.77	0.26	1.14	4.37	M1.19	0.64	0.00	0.00	0.	0. 03	7.13	5.22	82 24.
1989	1.98	1.99	15.26	1.20	0.21	0.47	0.00	0.36	3.	3.	2.50	0.00	75 30.
1990	6.37	5.04	2.07	2.08	5.17	0.00	0.00	0.00	26 0.	64 0.	1.22	1.75	87 24.
1991	0.81	3.43	M16.77	0.98	1.30	0.68	т	0.28	03 0. 01	42 3. 25	0.80	3.59	15 31.
1992	3.12	10.51	3.47	1.84	0.00	0.94	0.00	Т	0. 00	M2. 40	0.73	10. 89	90 33. 90
1993	12.17	9.39	5.10	1.56	1.67	1.52	0.00	0.00	0. 00	1. 21	3.66	4.74	41. 02
1994	2.48	5.91	0.93	1.75	1.11	0.04	0.00	0.00	0. 37	0. 85	7.54	8.00	28. 98
1995	18.42	0.83	16.37	3.97	4.13	1.57	Т	0.00	0. 00	0. 00	0.12	8.18	53. 59
1996	7.16	9.17	3.14	4.33	4.38	0.15	0.00	0.00	0. 20	1. 85	5.10	16. 78	52. 26
1997	16.27	0.96	1.25	1.49	0.37	0.64	0.02	0.47	0. 26	2. 92	5.77	4.53	34. 95
1998	12.35	14,97	3.57	5.20	5.58	0.27	0.02	0.00	0. 57	0. 97	7.52	3.93	54. 95
1999	7.26	10.57	3.02	1.69	0.64	0.21	0.00	0.08	0. 00	0. 88	3.96	0.77	29. 08
2000	11.18	15.16	2.77	2.01	2.19	0.59	0.00	0.00	0. 72	4. 21	0.79	0.82	40. 44
2001	4.46	6.18	2.86	3.40	0.00	0.14	0.00	0.00	0. 45	0. 65	4.97	9.46	32. 57
2002	5.75	3.65	6.39	0.71	2.42	0.00	0.00	0.00	0. 00	0. 00	2.85	11. 75	33. 52
2003	M2.23	M2,51	M3.89	7.09	M1.46	M0.00	M0.00	M0.47	0. 00	МТ	M3, 16	7.72	28. 53
2004	M3.53	M7.24	M1.17	M0.76	M0.13	M0.00	0.00	M0.00	M0. 00	M3. 88	M4. 44	M7. 21	28. 36
2005	M2.96	M0.92	M6.67	M0.95	M2.76	M1.41	M0.00	M0.00	M0. 64	M0. 89	M2. 42	M4. 67	24. 29
2006	M3.28	M3.17	M7.71	M5.44	M0.39	M0.00	M0.00	M0.00	M0. 00	МТ	M1. 36	M3. 16	24. 51
2007	M0.70	M6.44	M0.02	M2.71	M0.72	M0.00	M0.00	M0.00	M0. 22	M1. 25	M0. 00	M3. 45	15. 51
2008	M3.74	M1.98	M0.11	0.32	0.06	0.00	0.00	0.00	0. 00	0. 88	M0. 86	M0. 89	8.84
2009	M2.57	M2.00	M2.35	1.49	M2.51	0.45	0.00	0.00	M0. 00	M1. 69	M0. 46	M1. 76	15. 28
2010	M5.09	M4.12	3.29	M3.00	2.26	0.06	0.00	0.00	0. 00	M0. 14	M2. 39	M5. 84	26. 19
2011	M2.25	M6.32	M12.13	M0.58	M2.67	M2.97	M0.00	M0.00	М0. 00	M2. 90	M0. 84	M0. 03	30. 69
2012	M0.90	M1.81	M10.15	M6.47	M0.09	M0.21	M0.03	MT	M0. 00	M1. 95	M7. 93	M11. 19	40. 73
2013	M0.63	M0.50	M1.49	M1.64	M0.72	M0.89	M0.00	M0.00	M0. 37	M0. 19	M1. 68	M0. 41	8.52
2014	M0.56	M4.93	M4.96	M1.79	M0.46	M0.00	M0.01	M0.00	M0. 97	M0. 38	M3. 67	M12. 74	30. 47
2015	M0.00	M3.26	M0.25	M1.45	M0.36	M0.24	M0.00	M0.00	M0.	M0.	M3.	M6.	15.

									09	00	56	44	65
2016	M5.19	1.40	M7.55	M1.21	M1.28	M0.00	M0.00	M0.00	0. 00	M3. 13	M0. 93	M3. 42	24. 11
2017	M10.00	M8.35	M3.66	M4.09	M0.58	M0.20	M0.00	M0.00	M0. 00	M0. 78	5.82	M0. 00	33. 48

Notes: Data missing in any month have an "M" flag, A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22

## **Exhibit A Aquatic Resources Delineation Map**

