

# Jurisdictional Delineation Report

Date & Time: Tue, Mar 05, 2019, 10:53:54 PST  
Position: 11 N 498843 3711049  
Altitude: 1524ft  
Datum: WGS-84  
Azimuth/Bearing: 053° N53E 0942mils (True)  
Elevation Angle: -02.9°  
Horizon Angle: +00.0°  
Zoom: 1X  
Monarch Winery JD



April 3, 2019

# **JURISDICTIONAL DELINEATION REPORT**

**MONARCH WINERY  
RIVERSIDE COUNTY, CA  
ASSESSOR'S PARCEL NUMBER 941-180-032**

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**April 3, 2019**

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## 1.0 INTRODUCTION

The purpose of this Jurisdictional Delineation Report (JD) was to identify areas that potentially meet the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) as waters of the U.S. pursuant to Section 404 of the Clean Water Act (33 USC 1344); Regional Water Quality Control Board (RWQCB) as waters of the State pursuant to Section 401 of the Clean Water Act and State Porter-Cologne Water Quality Control Act; and California Department of Fish and Wildlife (CDFW) as jurisdictional streambed and riparian habitat pursuant to Sections 1600 et seq. of the California Fish and Game Code (CFG Code) for the proposed Monarch Winery (Project).

The Project is proposed on a 44.6-acre property (Property and/or Site) located on the northeast corner of the intersection of De Portola Road and Monte de Oro Road east of the City of Temecula in an area commonly referred to as “wine country.” *Figure 1 - Regional Map* (Page 2) and *Figure 2 - Vicinity Map* (Page 3) depict the location of the Property.

The Property was geographically located in Township 7 South, Range 1 West in Sections 29 and 30 of the Bachelor Mountain 7.5 Minute United States Geological Survey (USGS) California Quadrangle. *Figure 3 - USGS Topographic Map* (Page 4) depicts the Property’s geographic location. The Universal Transverse Mercator (UTM) coordinates of the approximate center of the Project was 498878 East, 3711131 North in Zone 11 (North American Datum [NAD] 83).

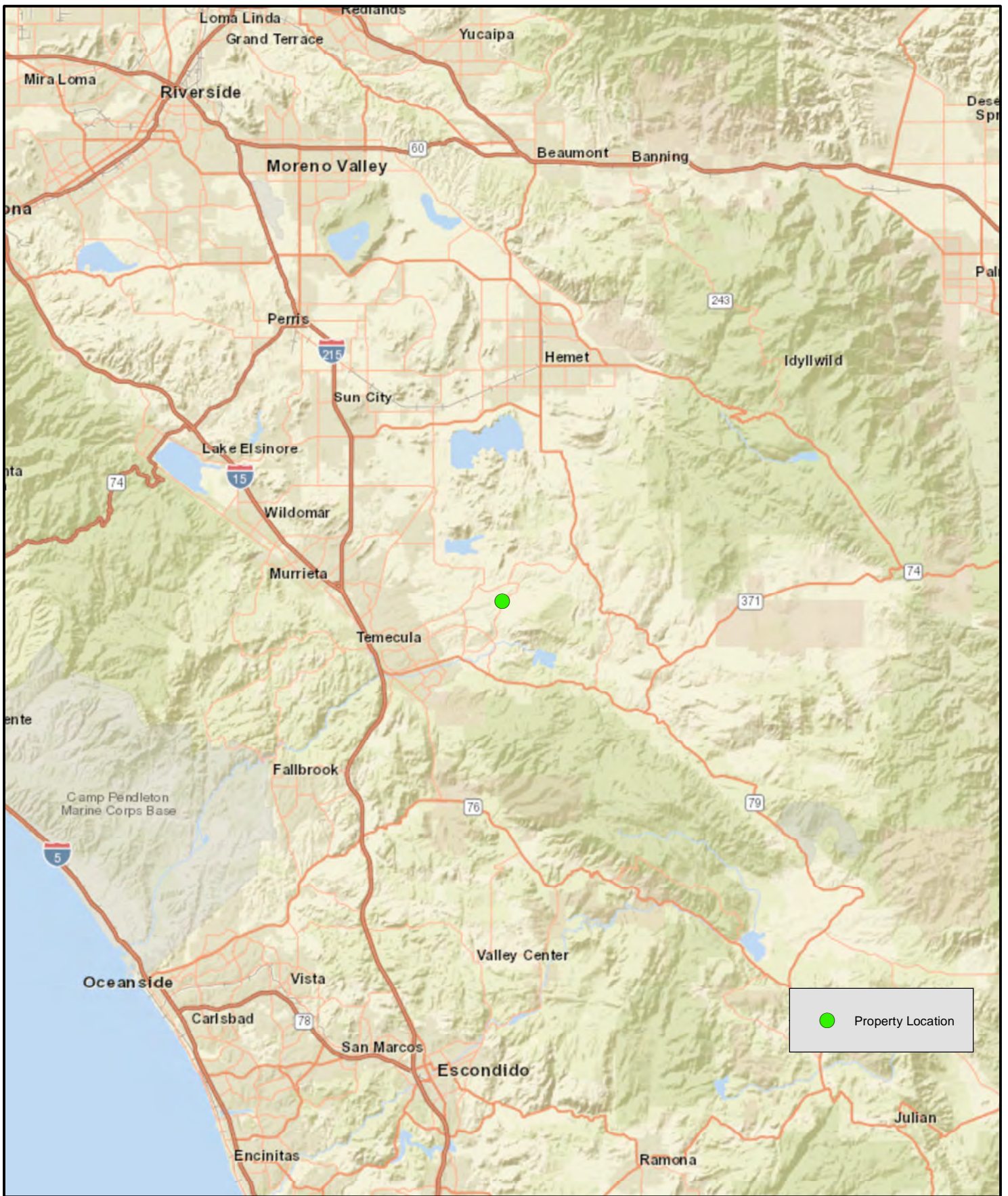
### 1.1 Property Description

The Property consisted of one Assessor’s Parcel Number (APN) owned by Fertile Soil, LLC (Applicant/Owner); 941-180-032. Long Valley Wash, a USGS-designated intermittent stream, enters the Property along the eastern Property boundary, and based on field evidence, flows to the west primarily as surface sheetflow, then concentrates and exits the Property along the western Property boundary. Long Valley Wash is located in the Santa Margarita Watershed and is tributary to Santa Gertrudis Creek, which is tributary to Murrieta Creek, which is ultimately tributary to the Santa Margarita River.

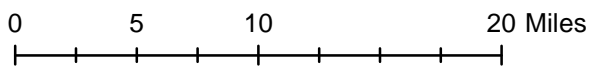
17.73-acres in the southern portion of the 44.6-acre Property is currently an active vineyard. An Agricultural Grading/Clearing Certificate Exemption was obtained on August 7, 2017 (BFE 170055) by Ben Drake, President of Drake Enterprises, Inc., a farm management company specializing in the development, maintenance and marketing of wine grapes and avocados in Southern Riverside and Northern San Diego Counties. Per the certificate, 17.73 acres of land located in the southern portion of the site (south of Long Valley Wash) was ripped and blended, cross ripped to a depth of 3 feet then floated so planting could occur. The irrigation main lines were taken from an existing Rancho California Water District 3-inch water meter on De Portola Road. The grapevines were planted, and were put on a drip irrigation system. Service road access will be taken from De Portola Road. The southern portion of the Site where the vineyard is present is designated by the Farmland Mapping and Monitoring Program (FMMP) as having “Local Importance” as depicted by *Figure 4 – Farmland Mapping and Monitoring Program Map* (Page 5). The remaining areas of the Property consisted of vacant land comprised primarily of a mix of coastal sage scrub and non-native grassland. Riparian scrub was sparse and present in a few scattered locations near the estimated<sup>1</sup> primary flow area of Long Valley Wash.

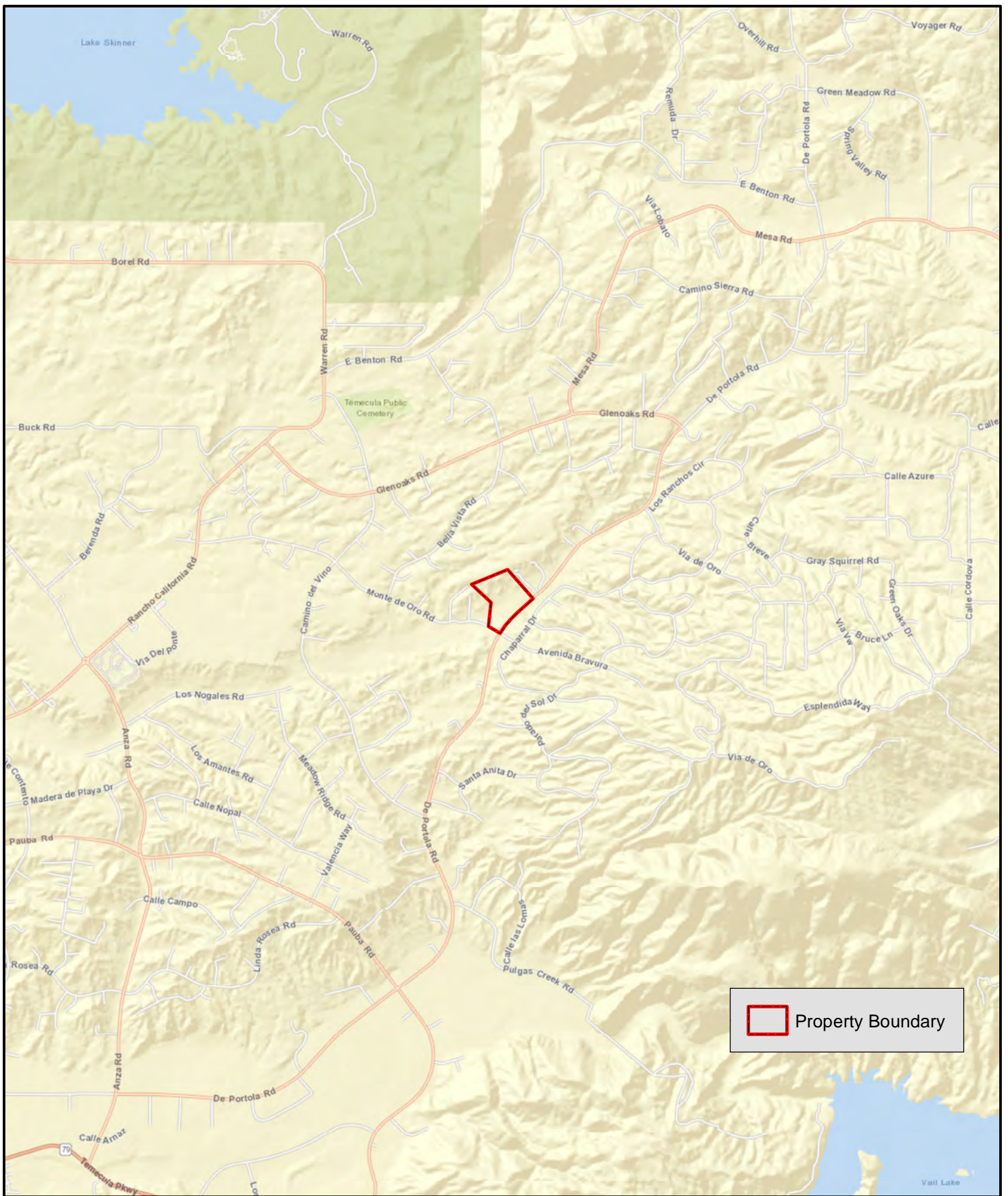
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<sup>1</sup> Evidence of concentrated/ordinary flow (i.e., Ordinary High Water Mark, distinct bed and bank, etc.) was absent throughout the majority of the Long Valley Wash area, and therefore, the low flow area was mapped based on historic aerial photography review, previous biological studies prepared by Principe and Associates, and weak field evidence (i.e., topography and riparian scrub) using submeter GPS.

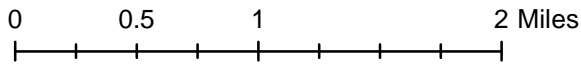


**FIGURE 1**  
Regional Map





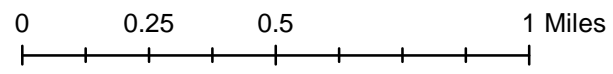
Property Boundary



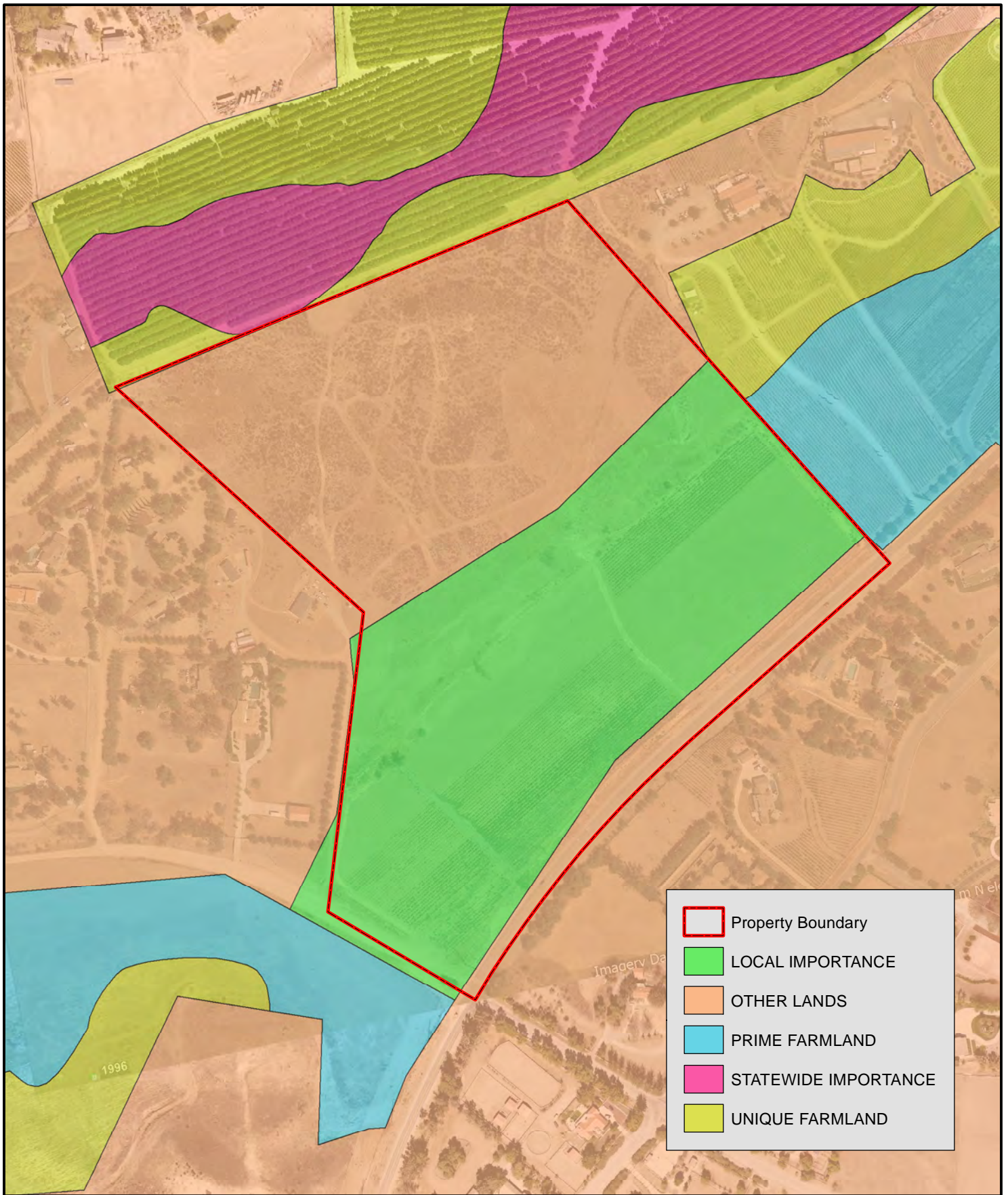
**FIGURE 2**  
Vicinity Map



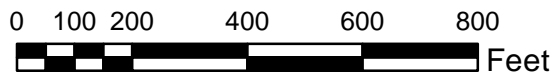
**FIGURE 3**  
**USGS Topographic Map**







**FIGURE 4**  
**Farmland Mapping and**  
**Monitoring Program Map**



### 1.1.1 Soils

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (United States Department of Agriculture Natural Resources Conservation Service 2019), the Property consisted of six soil series as depicted by *Figure 5 – NRCS Soils* (Page 7). A brief description, as described by the NRCS, is presented in Table 1 (below). No hydric soils were present on the Property.

Table 1 – Property Soils

ACRONYM	SOIL NAME	SOIL DESCRIPTION	PROPERTY ACRES
AtC2	Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded	A well-drained alluvium soil derived from granite. The depth to duripan ranges from 24 to 80 inches. The NRCS lists AtC2 as non-hydric.	0.02
AtD2	Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded	A well-drained alluvium soil derived from granite. The depth to duripan ranges from 24 to 80 inches. The NRCS lists AtD2 as non-hydric.	11.79
GzG	Gullied land	A non-hydric landform with diagnostic soil horizons absent.	8.24
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	A well-drained alluvium soil derived from granite. The depth to the restrictive feature is typically more than 80 inches. The NRCS lists HcC as non-hydric.	16.17
RuF	Rough broken land	A non-hydric soil derived from residuum from mixed sources. The depth to paralithic bedrock is typically only 0 to 3 inches.	2.20
VmC	Visalia fine sandy loam, 2 to 8 percent slopes	A somewhat poorly drained alluvium soil derived from granite. The depth to the restrictive feature is typically more than 80 inches. The NRCS lists VmC as non-hydric.	6.23

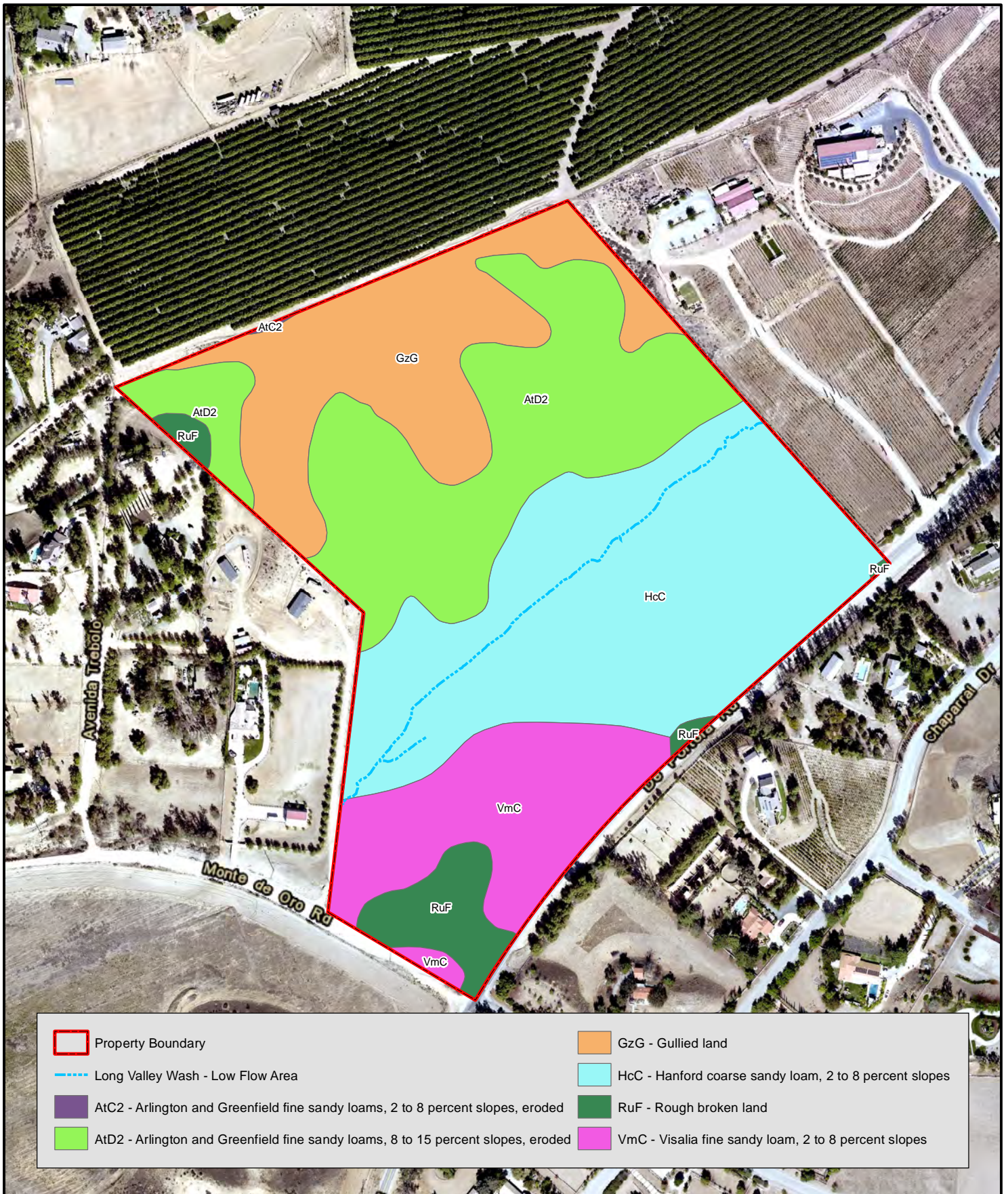
### 1.1.2 Topography

Topography on the Site consisted of rolling hills in the north and gently sloping valley contours in the southern portion. Topography in the northern half of the Site was comprised of elongate hilltops and ridges trending in a north-to-south direction flanked by shallow U-shaped valleys. According to the Schematic Grading Plan prepared by Ventura Engineering Inland, Inc (Ventura Engineering) attached in Appendix A, elevations in the northern portion of the Site ranged from 1,630 feet in the northeast corner to 1,530 feet in the western portion near the 100-year flood limit.

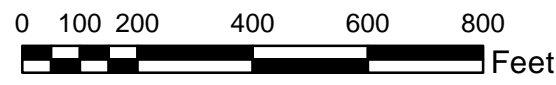
Relatively flat-lying/gently sloping terrain was present in the southern portion of the site. Elevations in this area, according to the Schematic Grading Plan, ranged from 1,545 feet at the Property's eastern boundary to 1,515 feet at the western Property boundary. This 30-foot elevation change over a distance of approximately 1,600 feet was not apparent while conducting the field JD assessment.

### 1.1.3 Vegetation

Vegetation community classifications are typically conducted in accordance with the California Department of Fish and Wildlife's (CDFW) Vegetation Classification and Mapping Program (VegCAMP) *List of Vegetation Alliances and Associations* (Natural Communities List) (California Department of Fish and Wildlife 2018) and *A Manual of California Vegetation*. Vegetation communities and land covers are



**FIGURE 5**  
**NRCS Soils**



mapped in the field utilizing both paper maps (i.e., aerial photographs and USGS topographic maps) and Collector for ArcGIS installed on an iPhone 7 connected to a SXBlue II + GNSS submeter unit and antenna (Collector).

Some land cover types are not classified in the above-referenced sources (i.e., developed, disturbed, agriculture, etc.); therefore, each land cover is designated with a common name for the purpose of this report. A description of the land cover types on the Property is presented in Table 2 (below). The distribution of vegetation communities and land covers on the Project are depicted on *Figure 6 – Vegetation/Land Covers Map* (Page 10).

Table 2 – Vegetation/Land Covers

COMMON NAME/ VEGCAMP COMMUNITY	DESCRIPTION	TOTAL ACRES
Agriculture (Vineyard)  No Corresponding VegCAMP Classification	The southern portion of the Property was utilized for agricultural purposes and active agriculture areas consisted of vineyard. The mapped area only included the limit of the vineyard.	15.67
Coastal Sage Scrub  California buckwheat scrub 32.040.00	Coastal sage scrub, with California buckwheat ( <i>Eriogonum fasciculatum</i> ) dominant, was present in the northern portion of the Property. Associate species included California sagebrush ( <i>Artemisia californica</i> ) deerweed ( <i>Acmispon glaber</i> ), and chaparral beard tongue ( <i>Keckiella antirrhinoides</i> ).	15.78
Developed  No Corresponding VegCAMP Classification	This land cover consisted of asphalt pavement on De Portola Road along the southern Property boundary.	0.49
Disturbed  No Corresponding VegCAMP Classification	This land cover consisted of Monte de Oro Road and road shoulder areas where bare ground was dominant.	0.81
Fremont Cottonwood  No Corresponding VegCAMP Classification	Two Fremont cottonwood ( <i>Populus fremontii</i> ) trees were present in the western portion of the Property within the vineyard area. The dripline of the trees were located outside of the estimated low-flow area of Long Valley Wash.	0.01
Non-native Grassland  Annual brome grasslands 42.026.00	Non-native grassland was present as a community between the coastal sage scrub and vineyard and along the periphery of the vineyard; however, non-native grassland was also present throughout the coastal sage scrub and agriculture as an understory. The three dominant plants encountered in these areas included ripgut grass ( <i>Bromus diandrus</i> ), wall barley ( <i>Hordeum murinum</i> ), and red brome ( <i>Bromus madritensis</i> subsp. <i>rubens</i> ). Other common non-native species present included London rocket ( <i>Sisymbrium irio</i> ), shortpod mustard ( <i>Hirschfeldia incana</i> ), and filaree ( <i>Erodium</i> spp.). Native forbs such as fiddleneck ( <i>Amsinckia intermedia</i> ) and miniature lupine ( <i>Lupinus bicolor</i> ) were also present but less commonly encountered.	11.76

COMMON NAME/ VEGCAMP COMMUNITY	DESCRIPTION	TOTAL ACRES
Riparian Scrub Mulefat thickets 63.510.00/Black willow thickets 61.211.00/Red willow thickets 61.205.00/Blue elderberry stands 63.410.00	Riparian scrub was present along and near the estimated low flow area of Long Valley Wash. Much of these shrubs and trees were drought stressed and a few were dead. The shrubs and trees were sparse, canopy open and intermittent, and the condition and vigor of the riparian scrub was poor. Black willow ( <i>Salix gooddingii</i> ) and red willow ( <i>Salix laevigata</i> ) were sparse and limited in distribution to the western portion of the Property. Mulefat ( <i>Baccharis salicifolia</i> ) was present throughout and blue elderberry ( <i>Sambucus nigra</i> ) was present in the central portion near the agricultural dirt road.	0.11
Tamarisk Tamarisk thickets 63.810.00	Salt cedar ( <i>Tamarix ramosissima</i> ), a non-native, shrub with a <i>High</i> invasive rating from the California Invasive Plant Council (Cal-IPC), was present in 3 locations along the estimated low flow area of Long Valley Wash.	0.02

## 1.2 Project Description

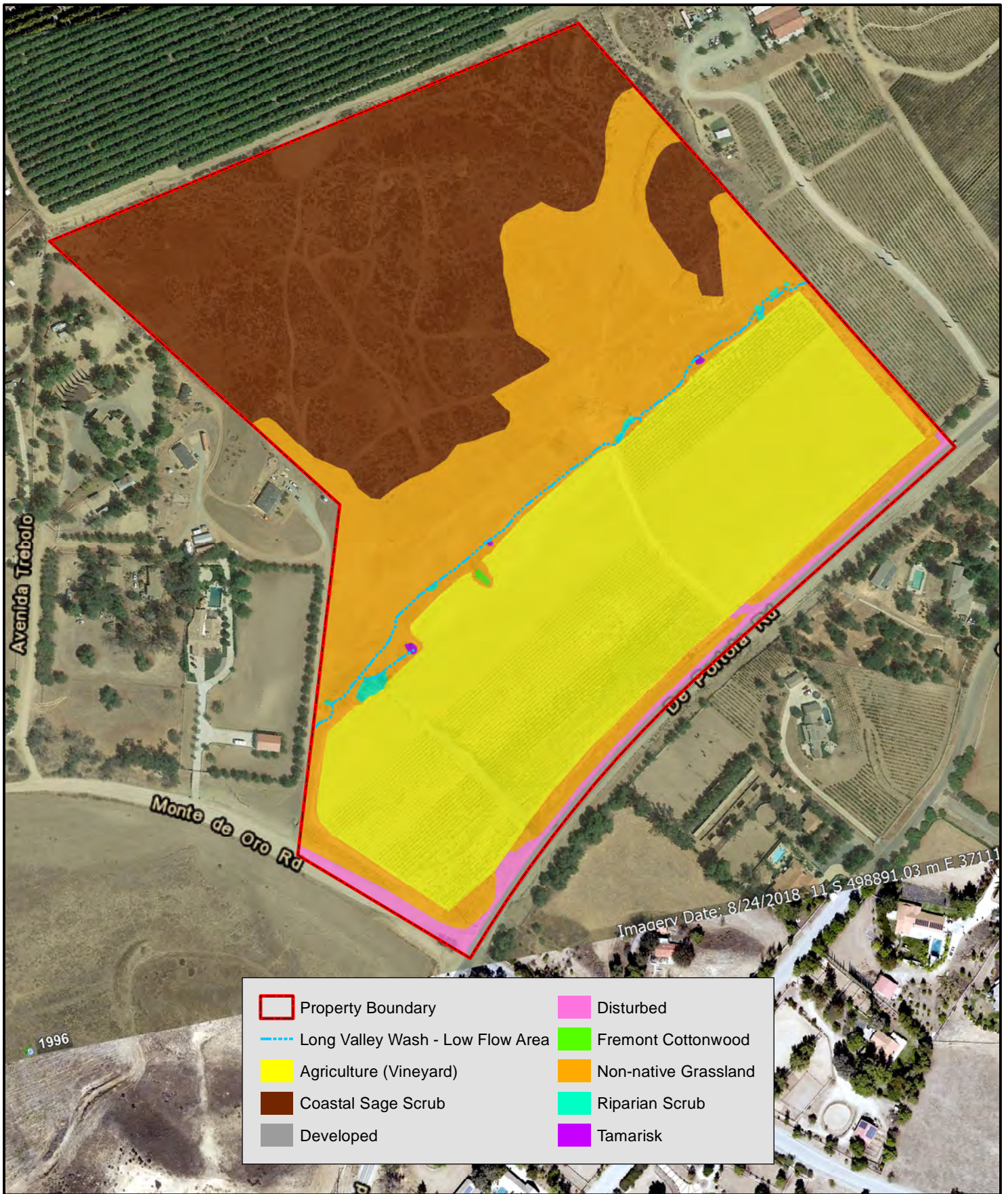
The Project is the development of a new winery and vineyard, associated retail tasting room, cave restaurant, and 80-room hotel with associated support structures. The Project will be developed in five phases:

- Phase 1 – tasting building with 4,934.1 square feet of building area production building with 9,554 square feet of building area offices/storage with 1,805 square feet of building area
  - Total 16,293.1 square feet (0.37 acre)
- Phase 2 – special occasions facility with 8,389.5 square feet (0.19 acre) of building area
- Phase 3 – restaurant building with 4,745.7 square feet (0.11 acre) of building area
- Phase 4 – cave building with 17,400 square feet of building area production expansion building with 6,000 square feet of building area case storage building with 8,750 square feet of building area
  - Total 14,750 square feet (0.34 acre)
- Phase 5 – 2-story hotel with a total of 74,010 square feet (1.70 acres) of building area

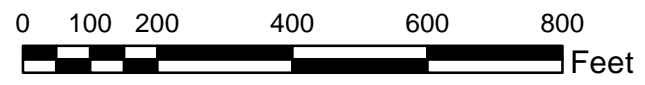
A total of 391 parking spaces will be provided, including ADA accessible spaces (Americans with Disabilities Act spaces). Infiltration trenches will be incorporated into some of the parking areas.

Area Calculations Summary (percent of 44.6-acre site):

- Buildings – 118,188.3 square feet (2.71 acres) or 6.4 %
- Parking/Landscaping – 279,239 square feet (6.41 acres) or 15%
- Vineyard – 1,294,024.3 square feet (29.7 acres) or 70.3% (Note: The initial phase of the vineyard has been developed on 17.73 acres located in the southern portion of the site (see 2.1 Property Description above).
- Vineyard over cave building (Phase 4) – 67,541.3 square feet (1.55 acres) or 3.7 %
- Olive trees – 82,467 square feet (1.89 acres) or 4.4%



**FIGURE 6**  
Vegetation/Land  
Covers Map



DATE: March 13, 2019  
 COORDINATE SYSTEM: NAD 1983 State Plane California VI FIPS 0406 (US Feet)  
 SOURCE: ESRI World Transportation, Ventura Engineering Inland, Inc., Riverside County GIS,  
 Google Earth August 24, 2018 Image (Georeferenced), SBS

Monarch Winery

Access to the Project will be taken from a 24-foot-wide paved entry drive off of De Portola Road. It will include an Arizona Crossing through the low flow area of Long Valley Wash. Acceleration/deceleration lanes will be constructed along De Portola Road.

Utilities and public services will be extended onto the site from existing facilities. Water will be provided by Rancho California Water District, gas by propane, electricity by Southern California Edison, telephone by Verizon – Business. Sewage disposal will be accomplished by a private septic tank system. Trash disposal will be provided by Waste Management of Inland Valley.

The development footprint is depicted on *Figure 7 – Project Footprint* (Page 12). Detailed Project information is provided in Appendix A.

## 2.0 REGULATORY SETTING

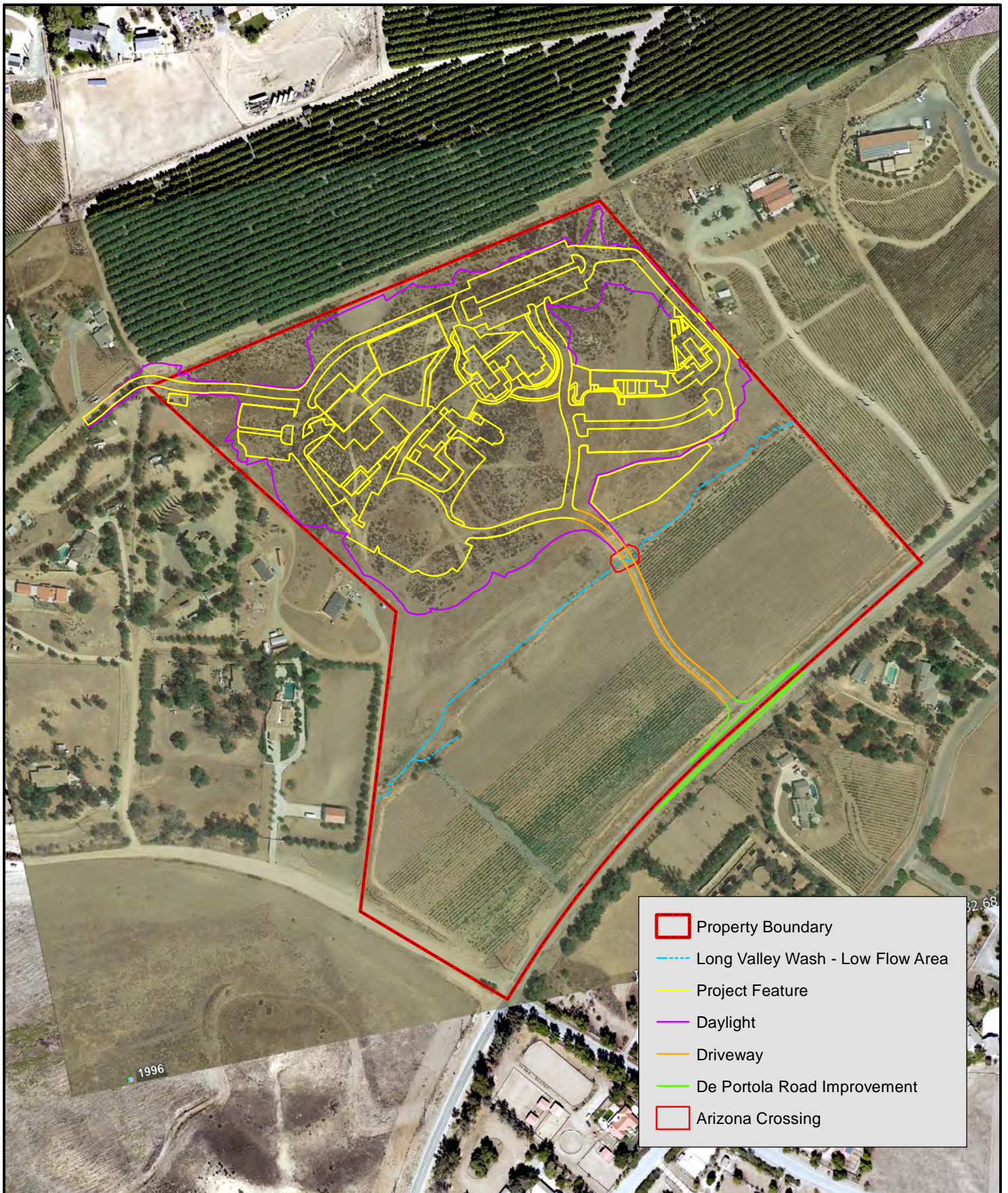
### 2.1 U.S. Army Corps of Engineers

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Waters include wetland and non-wetland bodies of water that meet specific criteria. The following definition of waters of the United States is taken from the discussion provided in Code of Federal Regulations (CFR) Title 33, Part 328.3:

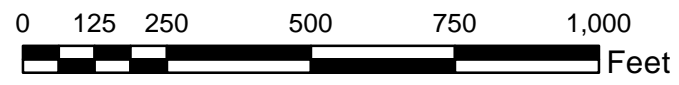
The existing regulatory definition of “waters of the United States” is:

The term waters of the United States means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;



**FIGURE 7**  
Project Footprint



DATE: March 14, 2019  
 COORDINATE SYSTEM: NAD 1983 State Plane California VI FIPS 0406 (US Feet)  
 SOURCE: ESRI World Transportation, Ventura Engineering Inland, Inc., Riverside County GIS,  
 Google Earth August 24, 2018 Image (Georeferenced), SBS



5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs(s) (1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

The limits of “non-tidal waters,” as described in Title 33, Part 328.3 is expressed in the field by the ordinary high water mark (OHWM) which includes “physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.”

Wetlands are included in the definition of waters of the United States but also have additional criteria because these areas are generally considered to have higher ecological and water quality value. The USACE and the U.S. Environmental Protection Agency (EPA) define wetlands as:

*“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”*

Positive indicators, in most cases, are required for the three wetland parameters used (vegetation, hydrology and soils) to make a positive wetland determination. Criteria are less rigorous for human-induced wetlands or for conditions considered “atypical.”

In 2001, in the Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers, the Supreme Court held that use of “isolated” non-navigable intrastate waters by migratory birds was not by itself a sufficient basis for the exercise of federal regulatory jurisdiction under the CWA.

Subsequent to the Supreme Court’s 2006 decision in the *Rapanos v. United States & Carabell v. United States* (Rapanos), the Supreme Court addressed where the Federal government can apply the CWA, specifically by determining whether a wetland or tributary is a “water of the United States.” The justices issued five separate opinions in Rapanos (one plurality opinion, two concurring opinions, and two dissenting opinions), with no single opinion commanding a majority of the Court. Essentially it was determined, based on the guidance provided in the *Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in Rapanos v. United States & Carabell v. United States* (U. S. Army Corps of Engineers 2008), that the USACE will

- assert jurisdiction over:
  - Traditional navigable waters
  - Wetlands adjacent to traditional navigable waters
  - Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
  - Wetlands that directly abut such tributaries
- decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:
  - Non-navigable tributaries that are not relatively permanent

- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary
- not assert jurisdiction over the following features:
  - Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
  - Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water
- apply the significant nexus standard as follows:
  - A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
  - Significant nexus includes consideration of hydrologic and ecologic factors

## 2.2 California Department of Fish and Wildlife

The CFG Code states that CDFW regulates activities which

*“will substantially divert, obstruct or change the natural flow or bed, channel or bank of any river, stream, or lake designated by the Department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit, or will use material from the streambeds.”*

CDFW is charged with the authority through provisions of the CFG Code Sections 1600 et seq. to issue agreements for any alteration of rivers, streams, or lakes where fish and wildlife resources may be adversely affected through modification or removal of support resources (vegetation, diversion of water, modification of riparian communities, etc.).

Streams are generally defined by the presence of bed and banks, channels, shorelines, and similar features. CDFW has discretion to assert jurisdiction over riparian communities associated with streams and waterbodies, as well as isolated waterbodies.

## 2.3 Regional Water Quality Control Board

The RWQCB is responsible for the administration of Section 401 of the CWA. Generally, RWQCB jurisdiction coincides with the USACE waters of the United States, including any wetlands. The RWQCB may also assert jurisdiction over waters of the State pursuant to the Porter-Cologne Act.

## 3.0 METHODS

### 3.1 Office Review

Prior to initiating the JD field assessment, Searl Biological Services (SBS) conducted a review and analysis of the Bachelor Mountain 7.5 Minute USGS California Quadrangle, historic aerial photography from Historic Aerials online (Historic Aerials by Netronline 2019) and Google Earth, the U. S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Also reviewed was the *Revised Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis for Plot Plan T180003* (Principe and Associates 2018) attached in Appendix B. Rainfall data were obtained from the Riverside County Flood Control and Water Conservation District (RCFC) Rain Gauge Map (Riverside County Flood Control and Water Conservation District 2019).

### 3.2 Assessing Potentially Jurisdictional Features

Potentially jurisdictional areas were assessed following the guidance described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (U. S. Army Corps of Engineers 2008), and guidance provided in CFG Code Sections 1600 et seq.. Other resources utilized included the *Munsell Soil Color Book* (Munsell Color (firm) 2009), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008), *Field Indicators of Hydric Soils in the United States* (United States Department of Agriculture, Natural Resources Conservation Service 2018), and the *Arid West 2016 Regional Wetland Plant List* (Lichvar, et al. 2016).

### 3.3 Field Assessment

Biologist Tim Searl and field technician Marc Searl conducted the JD field assessment following the guidelines described in the sources above on March 5, 2019. Potentially jurisdictional features were mapped in the field with Collector<sup>2</sup>. This included the extent of an OHWM, earthen banks, and outer boundary/dripline<sup>3</sup> of hydrophytic/riparian vegetation. The estimated center-line of the low flow area of Long Valley Wash was also mapped for the length of the Property. Wetland sampling points were also mapped with Collector.

## 4.0 RESULTS

### 4.1 Office Review

#### 4.1.1 Site History

Historic aerial photographs from 1967 and 1978 were purchased from Netronline georeferenced for GIS use. Google Earth images from 1996 and 2009 were georeferenced by SBS. As indicated by the analysis presented below, the Site and particularly the southern Long Valley Wash area, has been utilized for agricultural purposes then reverted back to vacant then returned to agricultural since 1967.

#### *1967*

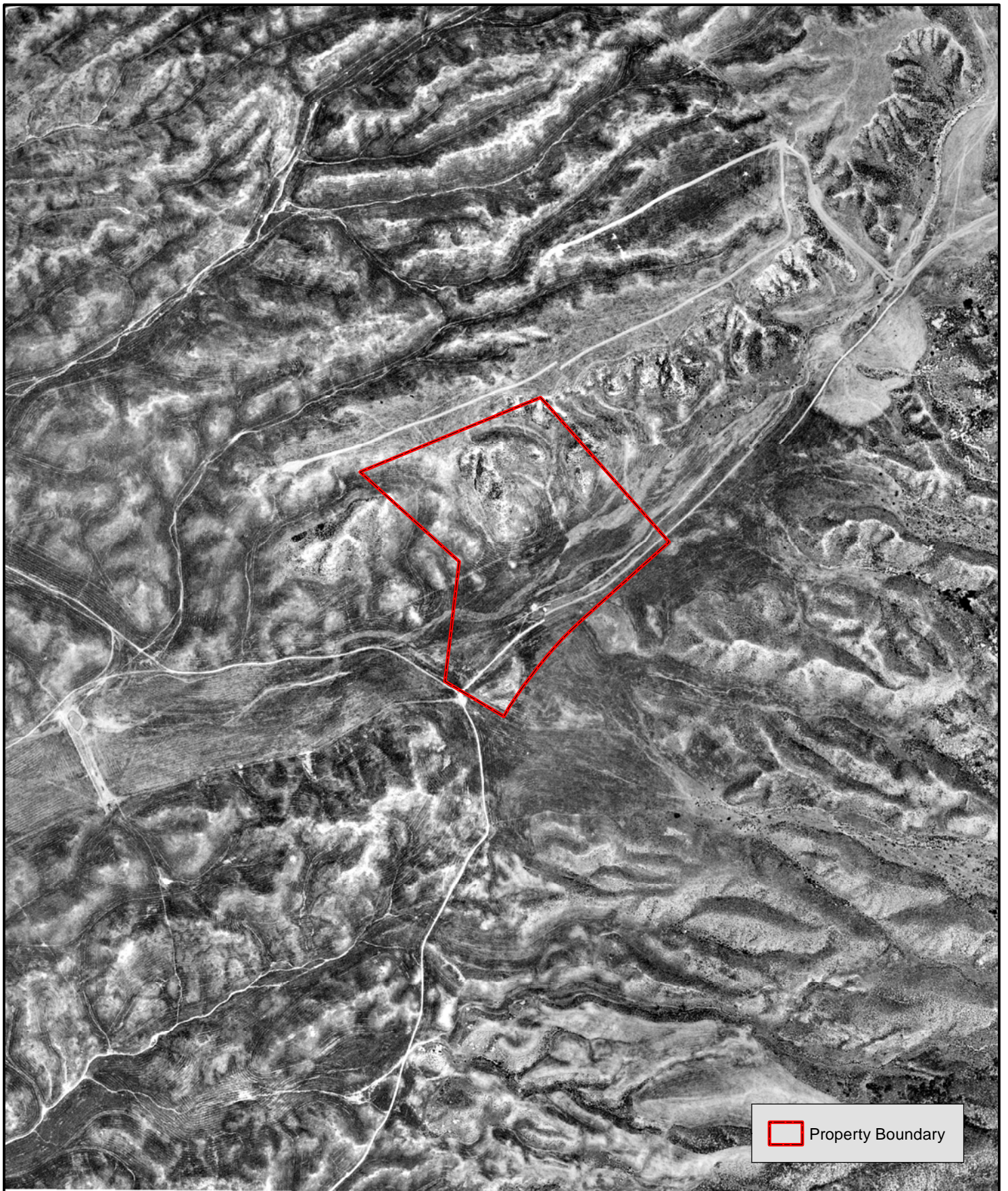
The Site and the majority of the surrounding area in 1967 was likely utilized for dryland agriculture (i.e., wheat, barley, etc.) as agricultural disking is clearly evident. Long Valley Wash appears unimpeded upstream and flow was likely typical of an ephemeral alluvial valley wash with a primary low flow channel and areas within the floodplain showing evidence of flow from high yield rain events. The primary low flow channel was evident in the southern portion of the Site consistent with the mapping on the USGS Topographic Map. *Figure 8 – 1967 Aerial Photograph* (Page 16) depicts the conditions described above.

#### *1978*

In 1978, the Site and the areas both east and west had been planted with what appears to be vineyard. The primary low flow channel of Long Valley Wash was no longer evident. It is possible that the installation of vineyard upstream and on the Site dissipated flows to where the hydrologic regime was primarily surface sheetflow, similar to current conditions. A braided network of flow typical of an alluvial valley was still present immediately west of the Site before entering an agricultural ditch. *Figure 9 – 1978 Aerial Photograph* (Page 17) depicts the conditions described above.

<sup>2</sup> Horizontal accuracy of the GPS during data collection ranged from 25 to 50 centimeters.

<sup>3</sup> The dripline is the area directly located under the outer circumference of tree/shrub branches.



Property Boundary

**FIGURE 8**  
**1967 Aerial Photograph**



Property Boundary



**FIGURE 9**  
**1978 Aerial Photograph**

### 1996

In 1996, the southwestern portion of the Property was in active agricultural use with what appears to be vineyard. A densely vegetated, linear area is evident within the agricultural area near the current alignment of the estimated low flow area of Long Valley Wash. This may have been an agricultural ditch. The southeastern portion of the Site was densely vegetated, along with the adjoining area to the east, and did not appear to be in active agricultural use. Single-family homes had been constructed west of the Site. *Figure 10 – 1996 Aerial Photograph* (Page 19) depicts the conditions described above.

### 2009

The Property did not appear to be planted and appeared vacant in 2009. Conversely, the properties to the east/upstream were back in agricultural use and planted with vineyard. This includes the Long Valley Wash area. Hydrologic flow was evident upstream of the Site based on soil color and entered the Property near the current alignment of the estimated low flow area of Long Valley Wash. Flow exits the Property in the west and eventually enters a ditch along Monte de Oro Road. *Figure 11 – 2009 Aerial Photograph* (Page 20) depicts the conditions described above.

#### 4.1.2 NWI

The NWI classifies Long Valley Wash as “Riverine” and follows the general alignment of the USGS-designated intermittent stream mapped on the Bachelor Mountain USGS Topographic Quadrangle as depicted by *Figure 12 – NWI* (Page 21). The *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee (FGDC) 2013) defines “Riverine” as:

*“The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is “an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water”*

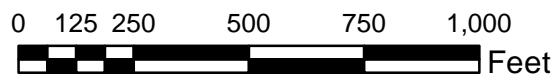
#### 4.1.3 FEMA

FEMA classifies the Property and immediate surrounding area as an “Area of Minimal Flood Hazard.”

## 4.2 Preliminary Jurisdictional Delineation Results

Based on field evidence observed on March 5, 2019, it appears that the majority of Long Valley Wash flows through the Site as surface sheetflow. Impediments upstream of the Property, particularly the approximate 1,300-foot-wide area planted with vineyard, appear to disperse and dissipate any concentrated flows. Impediments included planted grapes and associated vineyard stakes and wires and perpendicular wire fence-lines.

Approximately 1,300 feet in the upstream portion of the approximate 1,500 foot estimated low flow area of Long Valley Wash on the Property supported only weak and remnant evidence of concentrated flow. A remnant OHWM/incised channel was present in the central portion near the Project crossing and was not connected up or downstream and did not appear to be currently hydrologically active. The crossing did not support evidence of recent flow. This, even after the Temecula area had received 18.33 inches of rain to-date which included a four-day storm event from February 13 to February 16 that produced 6.04 inches of rain (Riverside County Flood Control and Water Conservation District 2019), indicates that these areas are no longer hydrologically active. Other weak field indicators of a hydrologic regime in the 1,300-foot area included the scattered, sparse, and drought stressed riparian scrub and the presence of an indistinct upland swale with what appeared to be a human-created earthen bank associated for approximately 530 feet in the



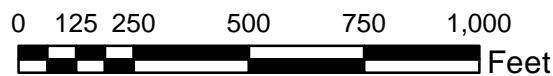
Property Boundary

**FIGURE 10**  
**1996 Aerial Photograph**

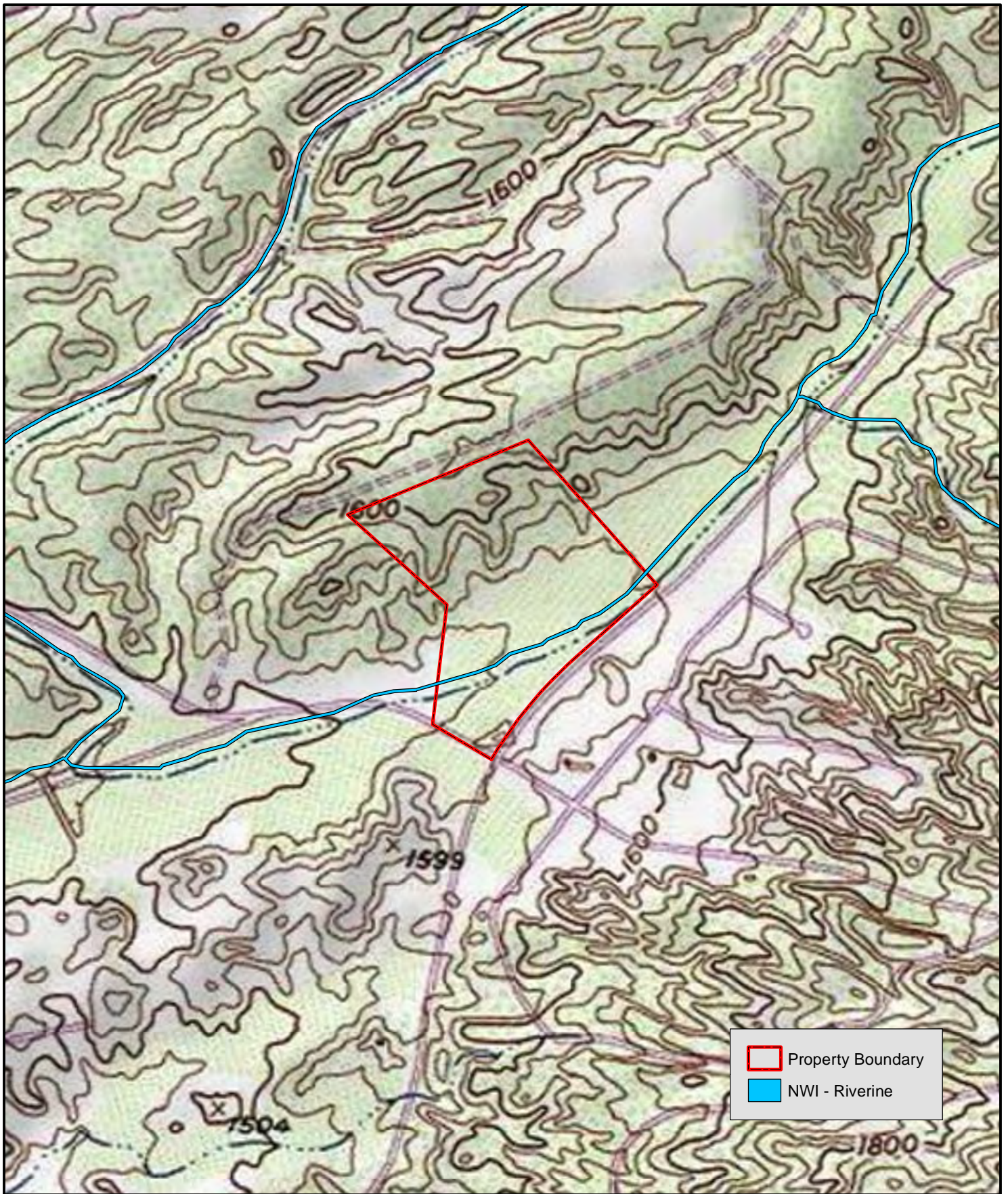


Property Boundary

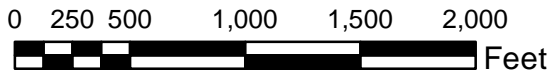
**FIGURE 11**  
**2009 Aerial Photograph**







**FIGURE 12**  
**NWI**



downstream portion. The earthen bank was likely put in place for agricultural purposes and appeared to have been present for many years.

The strongest evidence of concentrated flow and potentially jurisdictional areas were only present in the downstream end. Surface sheetflow across the Property likely concentrates in this area, and is also collected in an agricultural drainage swale that is situated perpendicular to the vineyard. This swale, which is lined with rock, also collects storm runoff from De Portola Road. The downstream area supported clear hydrologic flow indicators which included an OHWM, sediment transport, bent vegetation, and small debris racks. The largest concentration of riparian scrub, though still with an open canopy, was also present in this area.

An erosional gully was present in the northeastern portion of the site. It was confined to a small ravine worn away by running water originating from the paved surfaces of the development located adjacent to the northeast corner of the site. The gully was evident for approximately 400 feet where it conveyed storm water runoff downslope before it dissipated on the surface as sheetflow. The gully did not connect to the estimated low flow area of Long Valley Wash and was not clearly evident on the Site in 1967, 1978, or 1996. It was present in 2009 subsequent to the construction of the development offsite.

The areas described above are depicted on *Figure 13 – Preliminary Jurisdictional Assessment Results* (Page 23). Representative photographs of the JD assessment and a photographic key map are provided in Appendix C.

#### 4.2.1 Potential Waters of the United States

Determining the extent of potential USACE jurisdiction was difficult given the lack of evidence of concentrated or ordinary water flow outside of the western portion of the Site. As described above, the majority of Long Valley Wash appears to flow through the Property as surface sheetflow with no clear extent indicators of an OHWM outside of the western portion of the Property. Outside of the western portion of the Site, the remnant incised channel near the Project crossing was the only remaining evidence of historic flow. If the USACE asserts jurisdiction over these areas, the potential jurisdictional area and length, and potential Project impacts are provided in Table 3 (below). The area provided below is depicted on *Figure 14 - Preliminary USACE Results w/Project Overlay* (Page 24).

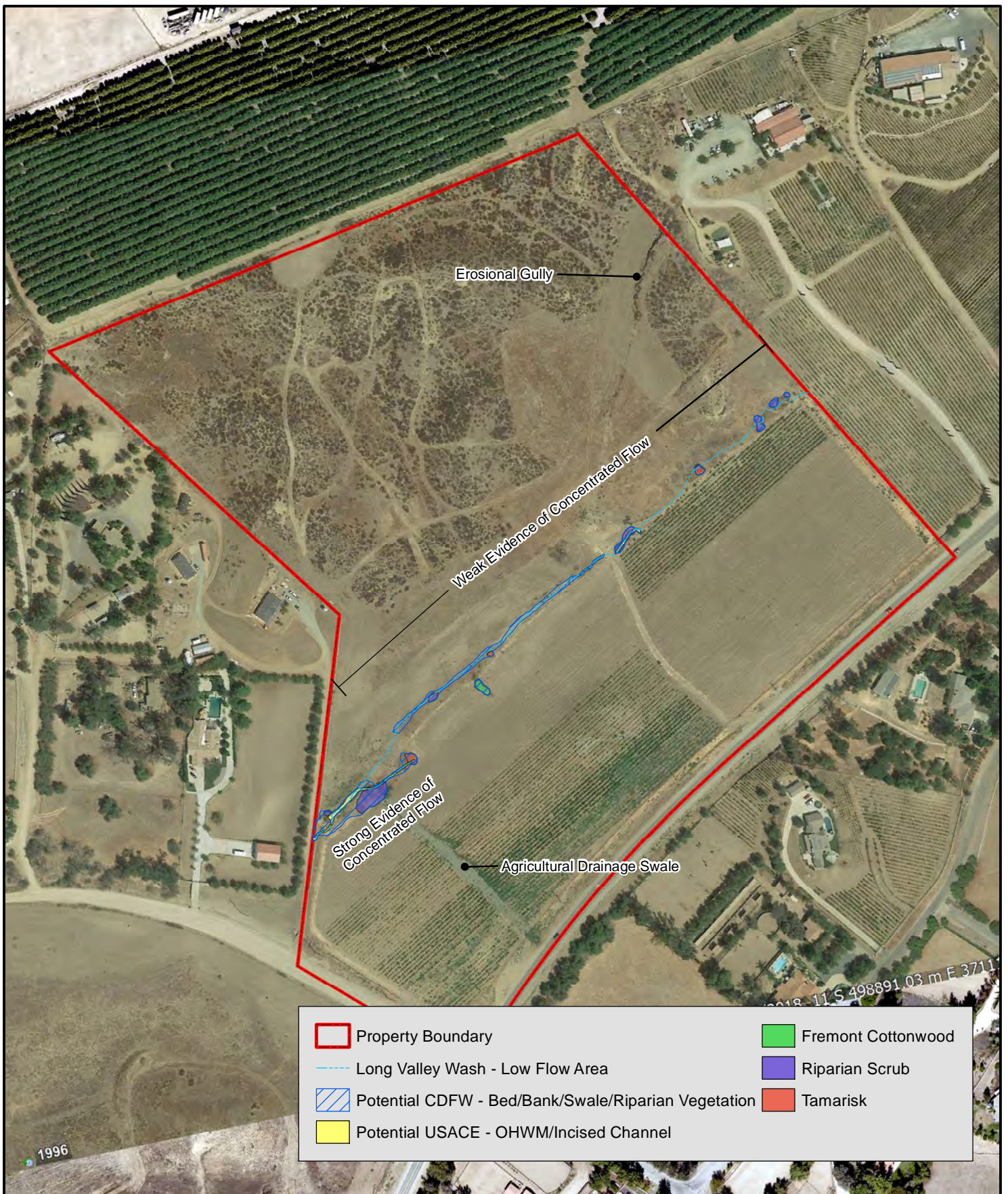
Four wetland sampling points were assessed and each lacked the required three indicators for wetlands. Wetland data sheets are provided in Appendix D.

Table 3 - Potential USACE/RWQCB Jurisdictional Area and Impacts

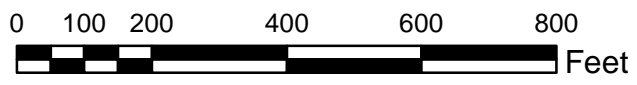
TYPE	TOTAL		IMPACT TOTAL	
	Acres	Linear Feet	Acres	Linear Feet
Non-Wetland Waters of the US	0.05	454.40	0.006	55.16

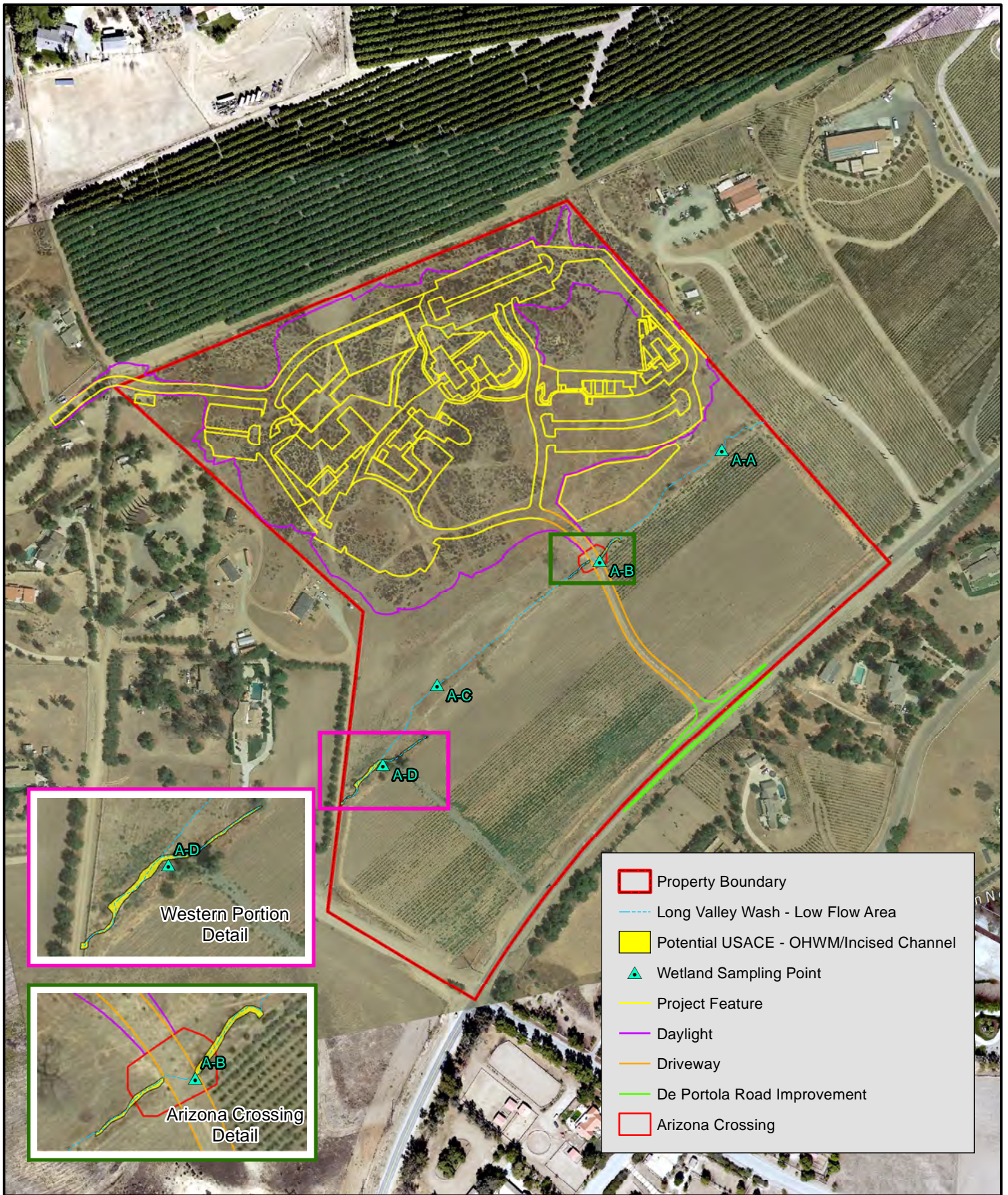
#### 4.2.2 Potential CDFW Streambeds and Associated Riparian Habitat

Similar to potential USACE jurisdiction, determining the extent of potential CDFW jurisdiction was difficult outside of the western portion of the Site. With Long Valley Wash flowing through the Property as surface sheetflow, naturally formed streambeds were absent. Remnant and drought stressed riparian vegetation was present near the estimated low flow area of the wash, and a human-created earthen bank was present between the remnant incised channel near the Project crossing and the western portion of the Site where evidence of flow was clearly present. These remnant areas, along with the strong evidence of flow in the western portion, were utilized to generate the potential jurisdictional areas presented in



**FIGURE 13**  
**Preliminary Jurisdictional**  
**Assessment Results**





**FIGURE 14**  
**Preliminary USACE Results**  
**w/Project Overlay**

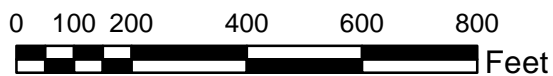


Table 4 (below). The area provided below is depicted on *Figure 15 - Preliminary CDFW Results w/Project Overlay* (Page 26).

Table 4 - Potential CDFW Jurisdictional Area and Impacts

TYPE	TOTAL ACRES	IMPACT TOTAL (ACRES)
Riparian Vegetation <sup>4</sup>	0.14	0.008 <sup>5</sup>
Non-Riparian Swale/Bank	0.26	0.002

## 5.0 CONCLUSION

It is the opinion of SBS, based on current field evidence, that Long Valley Wash flows through the Site as surface sheetflow, and the estimated low flow area does not receive sufficient concentrated flow to produce an OHWM or distinct streambed with a naturally formed bed and bank outside of the far western portion of the Site, and therefore, these areas are likely not jurisdictional. The lack of ordinary and concentrated flow is likely attributed to upstream alterations. Additionally, the long-term viability of the native riparian shrubs and trees may be in jeopardy due to the lack of hydrology based on the poor condition observed. This notwithstanding, the results in this report are preliminary and should be verified by the appropriate regulatory agencies (i.e., USACE, CDFW, RWQCB).

### 5.1 Permitting

#### 5.1.1 USACE/RWQCB

The Project could potentially impact 0.006 acre (261.36 square feet; 55.16 linear feet) within the Project's Arizona crossing if the USACE asserts jurisdiction over the remnant channels in this area. Impacts from the Arizona crossing would require a CWA 404 permit from the Los Angeles District USACE. The impact of 0.006 acre would likely qualify for a Nationwide Permit (NP) rather than an Individual Permit (IP) due to the minimal impact proposed.

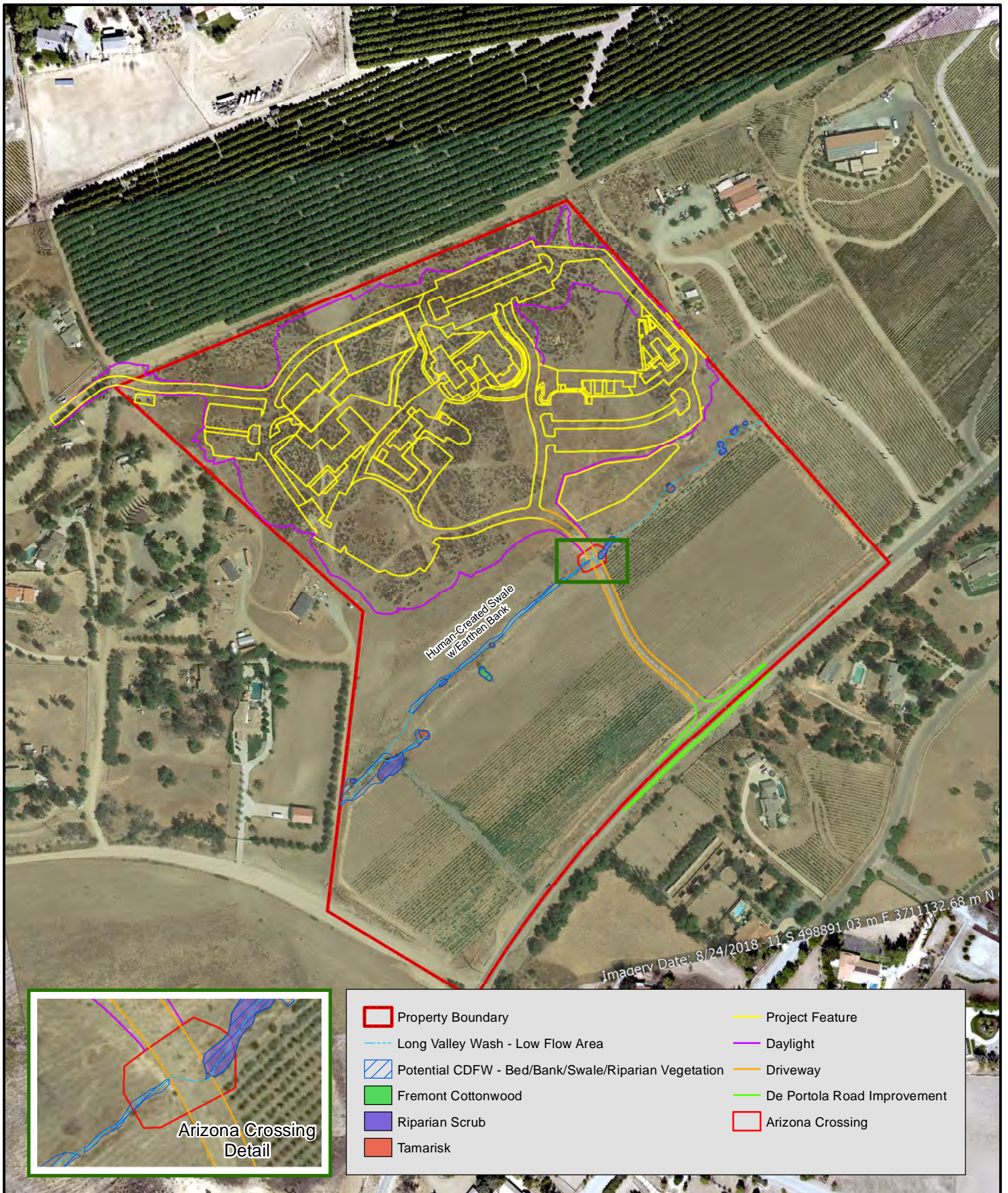
If the USACE asserts jurisdiction then the Project would also be subject to a CWA 401 Certification by the RWQCB and would require approval through the submittal of a CWA 401 Certification application prior to impacts to the waters. No isolated waters or wetlands were identified on the Property that would be subject to RWQCB jurisdiction through the Porter-Cologne Act.

#### 5.1.2 CDFW

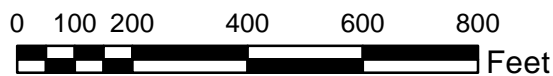
The Project could potentially impact 0.008 acre (348.48 square feet) of blue elderberry and 0.002 acre (87.12 square feet) of the remnant channel within the Project's Arizona crossing if the CDFW asserts jurisdiction over this area. Impacts from the Arizona crossing would require a Notification of Lake or Streambed Alteration application be submitted and approved prior to issuing a Streambed Alteration Agreement (SAA) stating what activities can occur in the areas deemed jurisdictional. If jurisdictional, the CDFW Inland Deserts regional office would need to be notified prior to Project impacts.

<sup>4</sup> Includes blue elderberry and tamarisk.

<sup>5</sup> Only blue elderberry was present within the eastern portion of the proposed Arizona crossing area.



**FIGURE 15**  
**Preliminary CDFW Results**  
**w/Project Overlay**



## 6.0 REFERENCES

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## 7.0 CERTIFICATION

I hereby certify that the statements furnished above, the associated figures, and the attached appendices present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed: Tim Searl Date: April 3, 2019  
Tim Searl, Owner/Biologist, Searl Biological Services

### FIGURE DISCLAIMER

Figures and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. Tim Searl, SBS makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on any of the Figures associated with this report.



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# APPENDIX A

Site Plan

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# PPT 180003 /SCHEMATIC GRADING PLAN

FOR PROPOSED WINERY  
 LOT K14, RS 50/68  
 IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

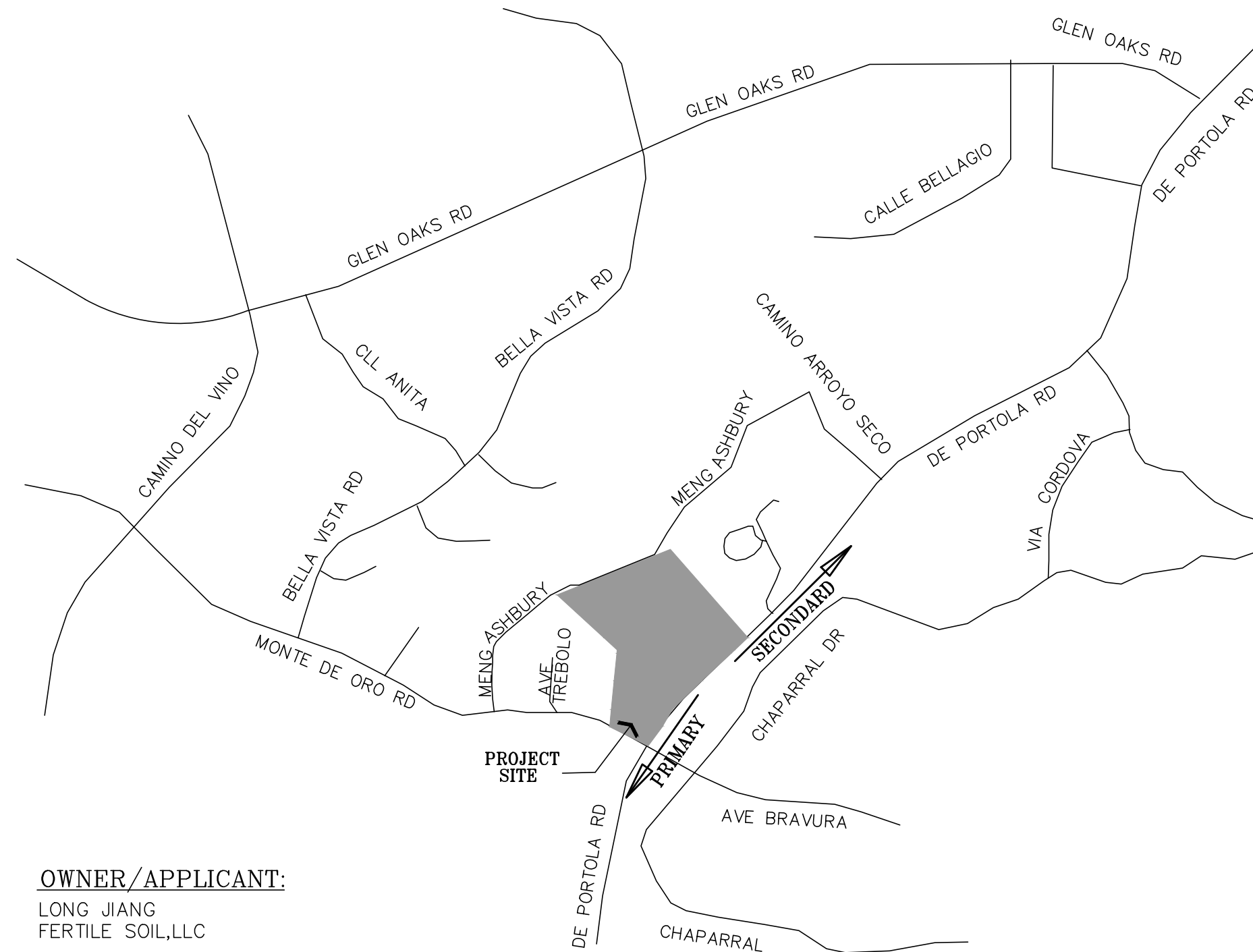
**UTILITY PURVEYORS & SCHOOL DISTRICT**

WATER: EASTERN MUNICIPAL WATER DISTRICT  
 SEWER: SEPTIC  
 GAS: PROPANE  
 ELECTRIC: SOUTHERN CALIFORNIA EDISON  
 TELEPHONE: VERIZON  
 CABLE: NO CABLE  
 SCHOOL DISTRICT: TEMECULA VALLEY UNIFIED

**ZONING/USE:**

EXISTING ZONING: C/V-10  
 EXISTING LAND USE: VACANT  
 PROPOSED ZONING: WC-W  
 PROPOSED LAND USE: WINERY

THERE IS NO EASEMENT ON PROPERTY.



**OWNER/APPLICANT:**  
 LONG JIANG  
 FERTILE SOIL,LLC  
 79 DUNMORE  
 IRVINE, CA 92620  
 949 951 9026

**SITE ADDRESS:**  
 DE PORTOLA ROAD  
 TEMECULA, CA 92592

**REPRESENTATIVE:**  
 CONTACT PERSON: GREG KOLL  
 Koll Custom Homes, Inc.  
 P.O. Box 1658  
 Temecula, CA 92593  
 951.225.1065, x501

**ENGINEER:**  
 CONTACT PERSON: WILFREDO VENTURA  
 VENTURA ENGINEERING INLAND, INC.  
 26811 HOBBIE CIRCLE, STE 12  
 MURRIETA, CA 92562  
 (951)252-7632

**SOURCE OF TOPOGRAPHY**  
 DELTA SURVEY AND MAPPING  
 39305 SALINAS DRIVE  
 MURRIETA, CA 92563  
 (951)764-0158  
 DATE OF SURVEY: MARCH 2017

**ASSESSORS PARCELS:**  
 941-180-032

**AREA**  
 42.63 ACRES (GROSS)

**THOMAS GUIDE**  
 RIVERSIDE COUNTY  
 PAGE: 930 GRID: F7  
 PAGE: 960 GRID: F1

**LEGAL DESCRIPTION**  
 LOT K14 OF RS 50/68 IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, T7S R1W SEC 29 & 30

**EARTHWORK QUANTITIES**

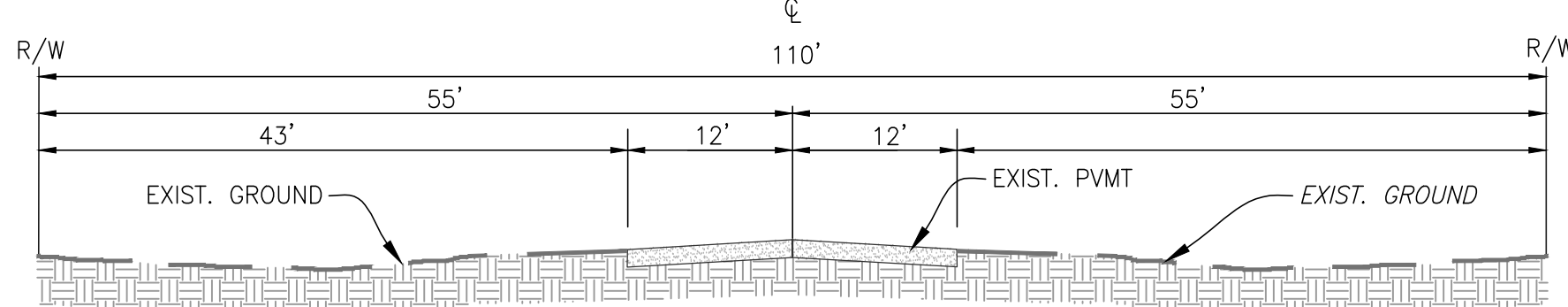
RAW CUT- 132,816 C.Y.  
 RAW FILL- 132,816 C.Y.  
 QUANTITIES ARE ESTIMATES ONLY AND CONTRACTOR IS TO VERIFY QUANTITIES PRIOR TO CONSTRUCTION

**VICINITY MAP**

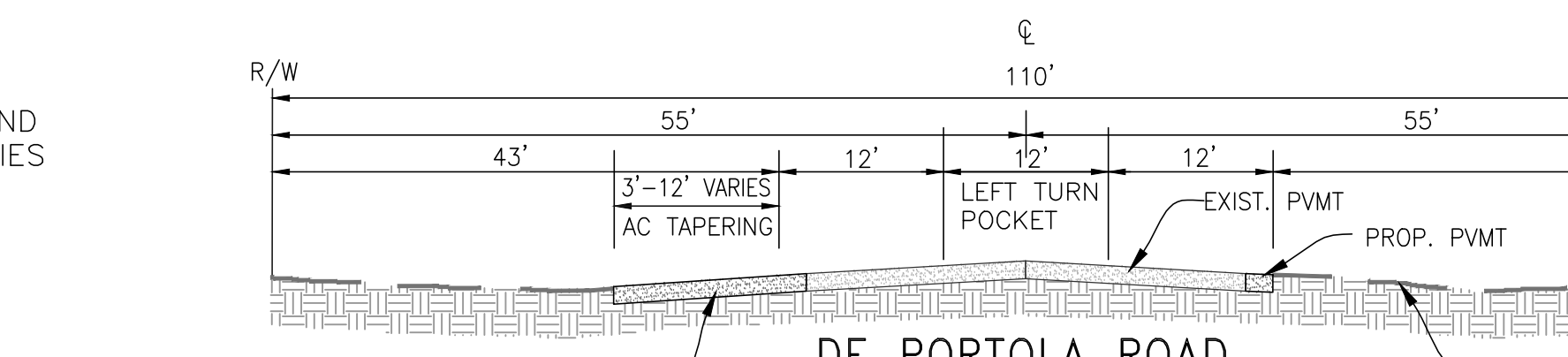
NOT TO SCALE

**LEGEND:**

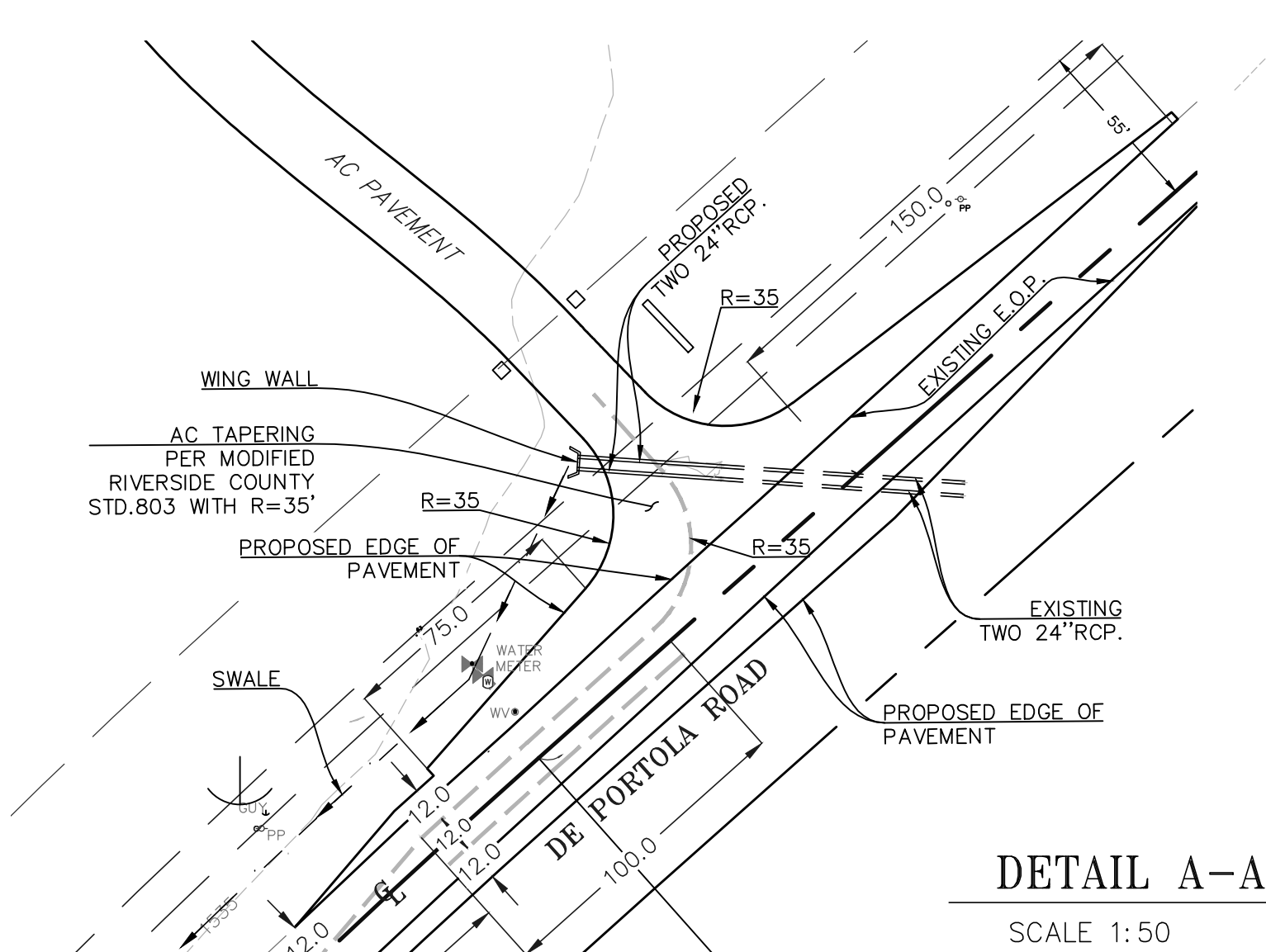
- CENTERLINE
- EXIST. PROPERTY LINE
- PROJECT BOUNDARY
- EXISTING CONTOUR
- ▭ PROPOSED BUILDING
- ▨ INFILTRATION AREA
- ▧ EMERGENCY EGRESS
- ▩ RETAINING WALL
- EXISTING CONTOUR
- DRAINAGE FLOW
- FLOW LINE F.L.
- HIGH POINT H.P.
- FINISHED GRADE F.G.
- PAD ELEVATION P.E.
- EDGE OF PAVEMENT E.O.P.
- TOP OF WALL T.W.



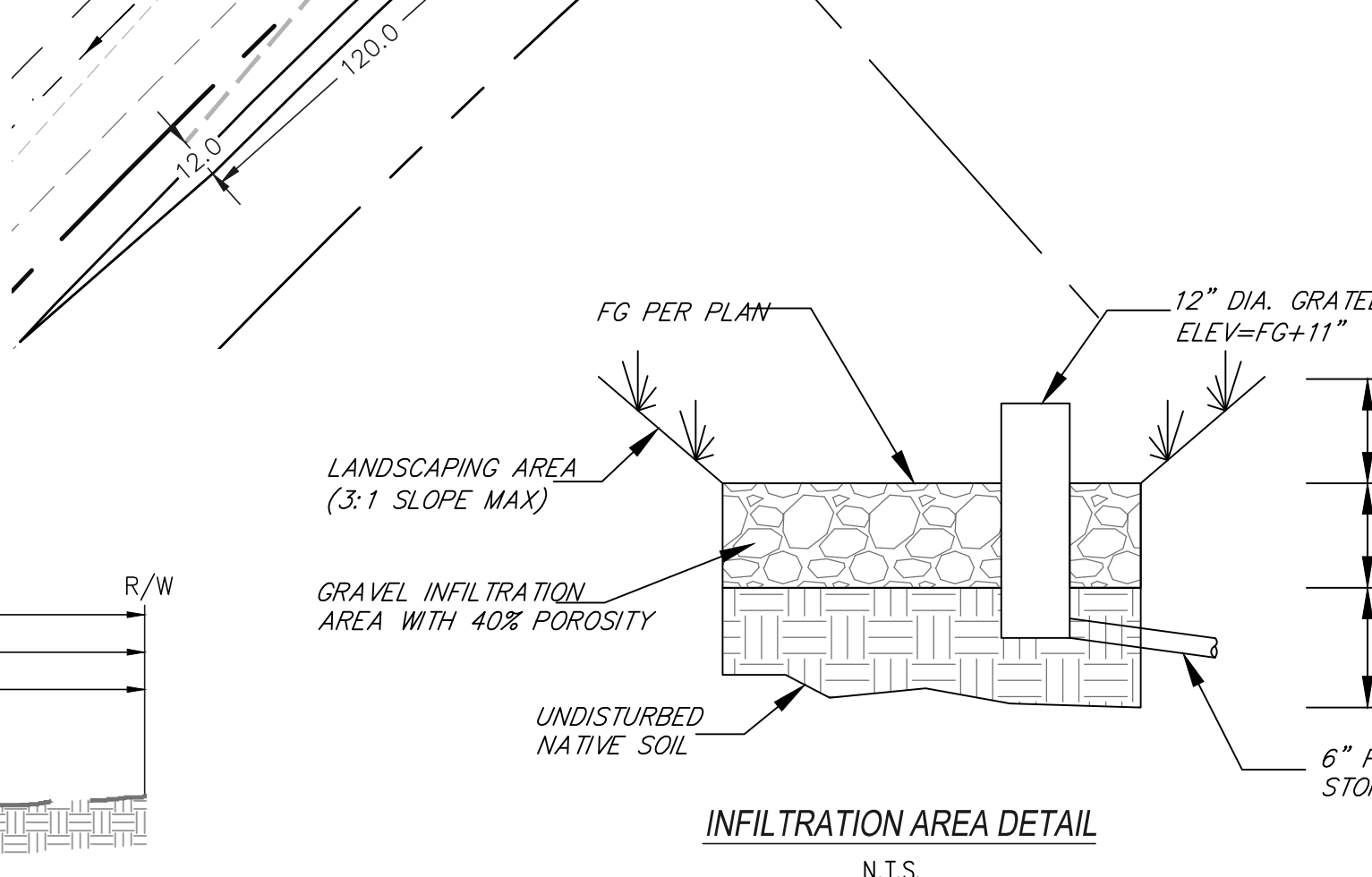
DE PORTOLA ROAD (TYPICAL)  
 N.T.S.



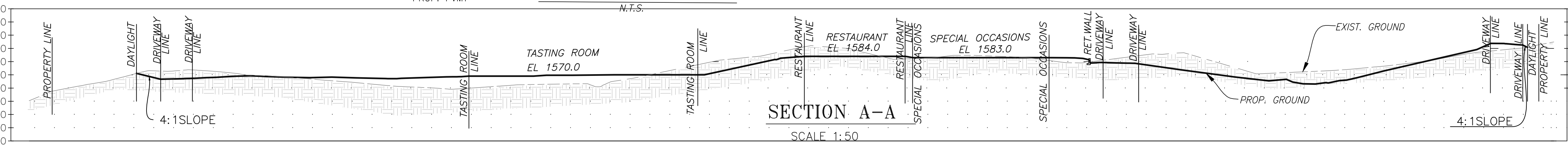
DE PORTOLA ROAD  
 N.T.S.



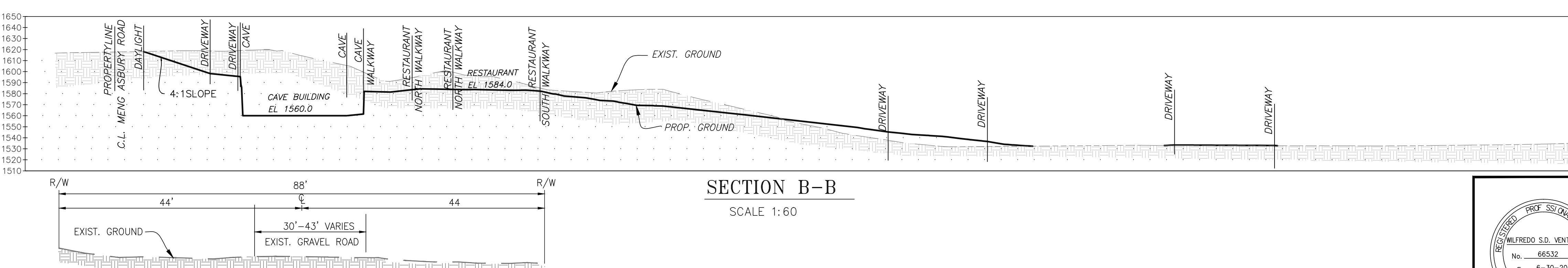
DETAIL A-A  
 SCALE 1:50



INFILTRATION AREA DETAIL  
 N.T.S.



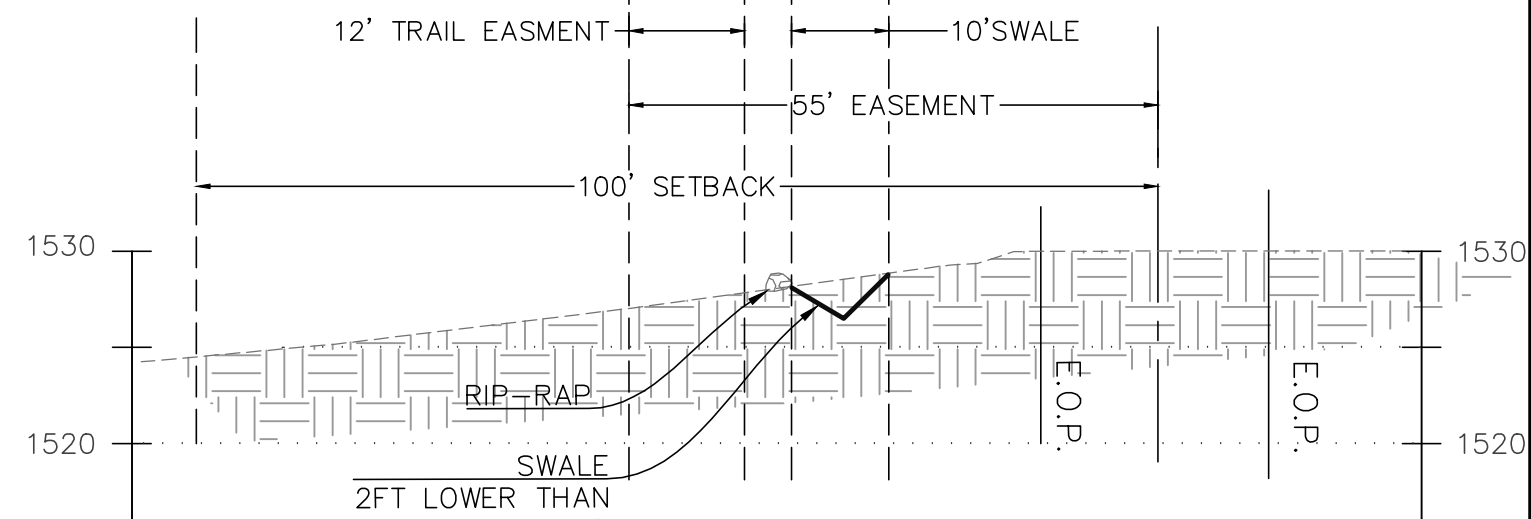
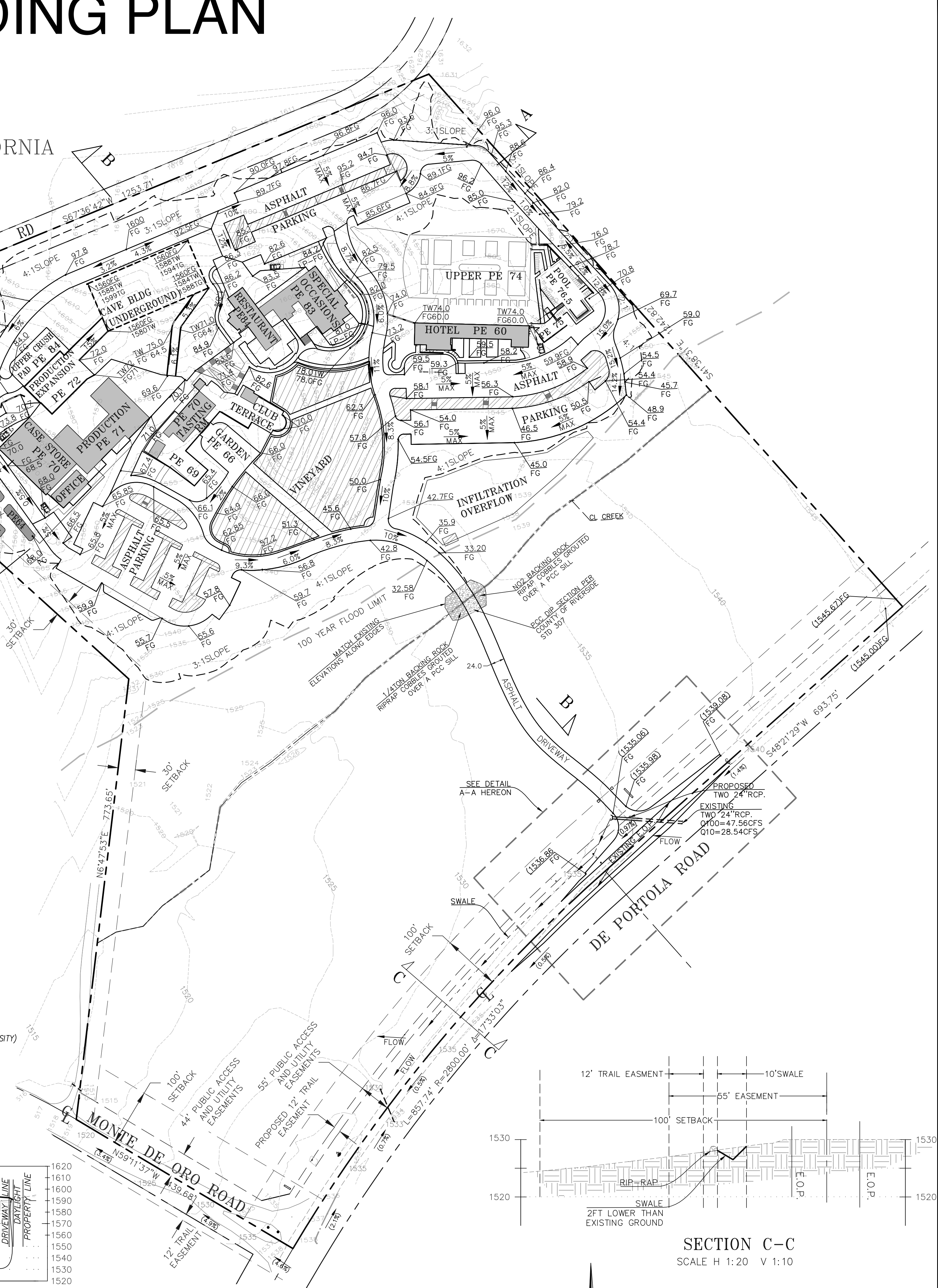
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 SCALE 1:50



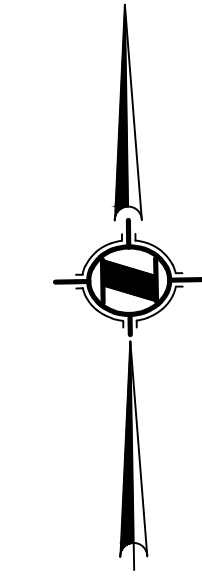
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 SCALE 1:60



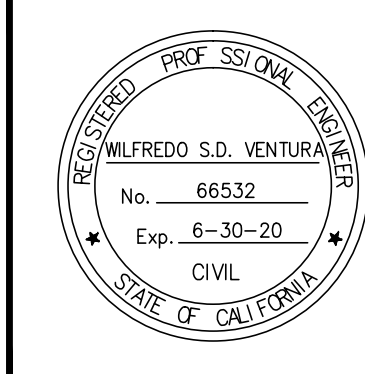
MONTE DE ORO ROAD  
 N.T.S.



SECTION C-C  
 SCALE H 1:20 V 1:10



1" = 100'  
 GRAPHIC SCALE  
 CONTOUR INTERVAL 1'



**VENTURA ENGINEERING INLAND, INC.**  
 27393 Ynez Rd, Suite 159  
 Temecula, CA 92591  
 PHONE (951) 252-7632  
 No. 66532  
 Exp. 8-30-20  
 CIVIL  
 WILFREDO S.D. VENTURA  
 RCE 66532, EXP. 06/30/20

**REVISIONS:**


PPT 180003 FOR PROPOSED WINERY LOT K14, RS 50/68 A.P.N. 941-180-032	SHEET NO. 1 OF 1
--	---------------------------

DATE: 03/12/19

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# APPENDIX B

Revised Western Riverside County Multiple Species Habitat Conservation Plan  
Consistency Analysis for Plot Plan T180003

---

**REVISED**

**WESTERN RIVERSIDE COUNTY**

**MULTIPLE SPECIES HABITAT CONSERVATION PLAN**

**CONSISTENCY ANALYSIS**

***PLOT PLAN T180003***

**APN 941-180-032**

LOCATION:

**Northeast corner of intersection of De Portola Road and Monte De Oro  
in unincorporated Riverside County, California. Mapped in portions  
of Sections 29 and 30, Township 7 South and Range 1 West of  
USGS Topographic Map, 7.5 Minute Series, Bachelor Mountain,  
California Quadrangle**

OWNER/APPLICANT:

**Long Jiang  
FERTILE SOIL, LLC  
79 Dunmore  
Irvine, California 92620  
(949) 981-9026  
[xunbinjiange@gmail.com](mailto:xunbinjiange@gmail.com)**

PRINCIPAL INVESTIGATOR AND REPORT PREPARER:

***Paul A. Principe*  
PRINCIPE AND ASSOCIATES  
29881 Los Nogales Road  
Temecula, California 92591  
(951) 699-3040  
[paulprincipe2@gmail.com](mailto:paulprincipe2@gmail.com)**

REPORT DATE:

**June 20, 2018**

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**APPENDICES (following Page 30)**

<b>Checklist of Vascular Plant Species</b>
<b>Site Photographs</b>
<b>References</b>
<b>RCIP Conservation Summary Report Generator</b>
<b>Biological Report Summary Sheets (E-3)</b>
<b>Level of Significance Checklist (E-4)</b>

## INTRODUCTION

Principe and Associates was hired by Fertile Soil, LLC to prepare a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis on approximately 44.6 acres of land located at the northeast corner of intersection of De Portola and Monte De Oro Roads in unincorporated Riverside County, California (**Site Vicinity Map**). The site is mapped in portions of Sections 29 and 30, Township 7 South and Range 1 West of USGS Topographic Map, 7.5 Minute Series, Bachelor Mountain, California Quadrangle (**USGS Location Map**).

Section 1 of this report describes the project and the project site. Section 2, 'Environmental Assessment', describes the topographic, hydrographic, soils, and biological environments present on the site. The purpose of Section 3, 'Consistency Analysis', is to identify and discuss (1) how the site relates to MSHCP Reserve Assembly and (2) how the site meets requirements of MSHCP Implementation Structure (Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4). To show consistency with Section 6.3.2 of the MSHCP (Additional Survey Needs and Procedures), a Nesting Season Survey for the Burrowing Owl report has been prepared to complete this MSHCP Consistency Analysis. Thresholds of Significance presented in Section 4 are used to determine the significance of environmental impacts. Levels of Significance (*i.e.*, Potentially Significant Impact, Less Than Significant Impact, etc.) are then applied to a checklist of questions (Thresholds BIO A-F) addressing biological resources to be answered during the initial assessment of a project. Section 5 lists Project Design Features and Mitigation Measures That Reduce Impacts.

The County of Riverside, eight (8) additional land jurisdictions, and approximately fourteen (14) cities adopted the Western Riverside County MSHCP in 2003. The MSHCP is a habitat conservation plan formed and permitted under the Federal Endangered Species Act (FESA). The MSHCP builds upon existing preserves and attempts to provide connectivity and wildlife corridors, and proposes to conserve approximately 500,000 acres and 146 different species. Approximately 347,000 acres are anticipated to be conserved on existing Public/Quasi-Public lands with additional contributions of approximately 153,000 acres acquired from private land owners. The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP provides a Section 10(a) take permit under the FESA for property owners, developers, and participating public agencies.

## SUMMARY

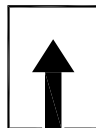
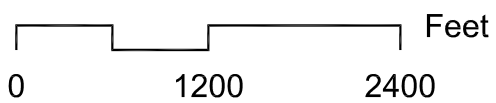
The development and operation of the project has been determined to be consistent with Sections 6.1.1, 6.1.3, 6.1.4, 6.3.2, and 6.4 of the MSHCP. The project will however result in impacts to Riparian/Riverine Areas. To gain consistency with Section 6.1.2 of the MSHCP, a Determination of Biologically Equivalent or Superior Preservation and a Jurisdictional Delineation are required for this project.

Based on the impact analysis, it was determined that the project will have less than a significant impact on biological resources with mitigation measures incorporated.



Source of Aerial Photo: Google Earth 10-21-2016

Scale: 1"= 1200'

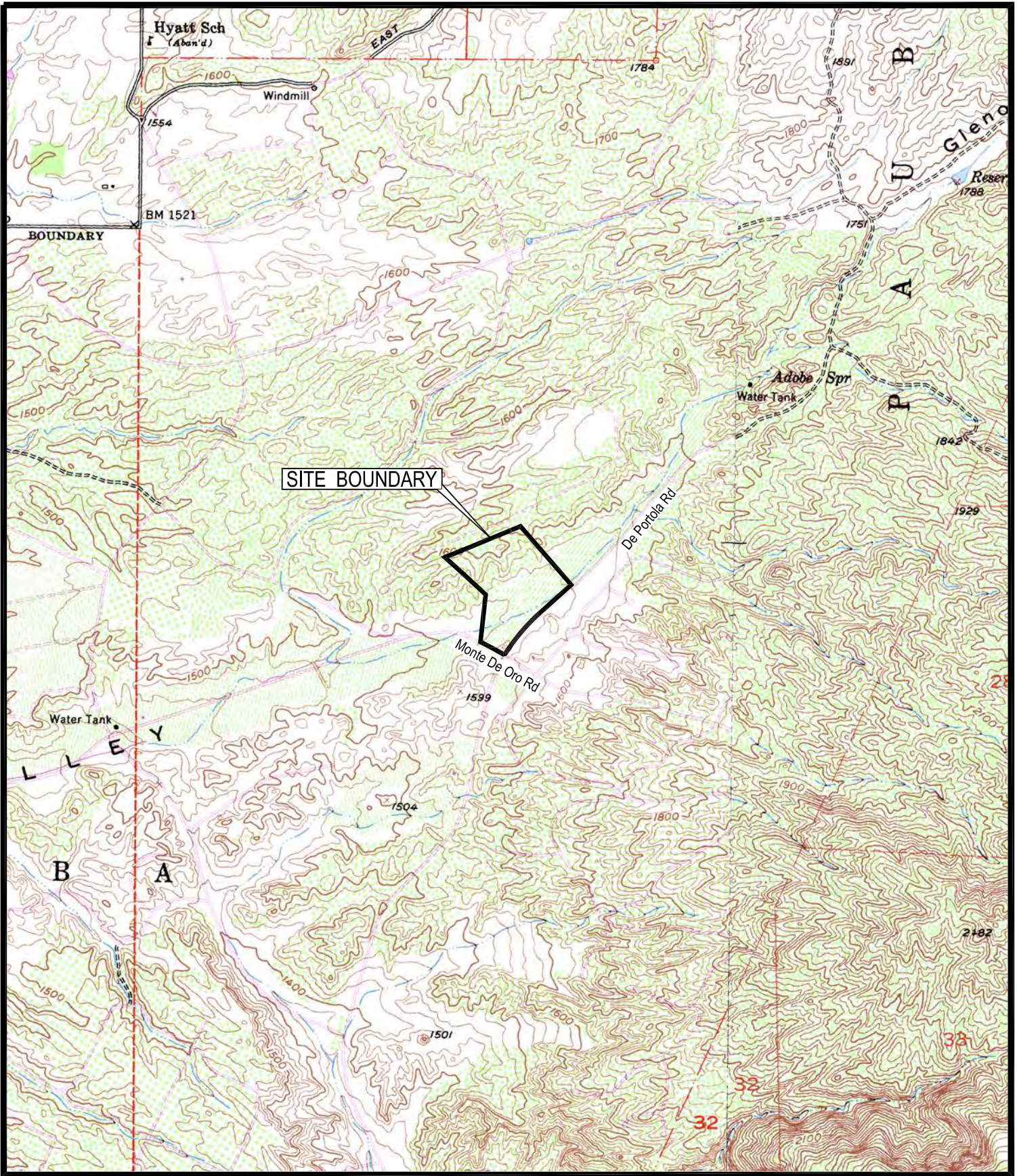


**SITE VICINITY MAP**

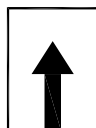
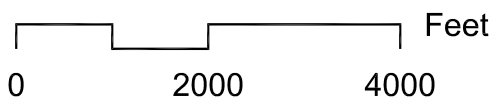
PLOT PLAN T18003

PRINCIPE AND ASSOCIATES





Base Map Source: USGS 7.5 Min.  
Bachelors Mtn., Calif. Quad.



**USGS LOCATION MAP**

PLOT PLAN T18003

PRINCIPE AND ASSOCIATES

## SECTION 1. PROJECT AND SITE DESCRIPTIONS

### 1.1 Project Description

Plot Plan T18003 is the development of a new winery and vineyard, associated retail tasting room, cave restaurant, and 80-room hotel with associated support structures. The project will be developed in five phases:

Phase 1 – tasting building with 4,934.1 square feet of building area  
production building with 9,554 square feet of building area  
offices/storage with 1,805 square feet of building area

Phase 2 – special occasions facility with 8,389.5 square feet of building area

Phase 3 – restaurant building with 4,745.7 square feet of building area

Phase 4 – cave building with 17,400 square feet of building area  
production expansion building with 6,000 square feet of building area  
case storage building with 8,750 square feet of building area

Phase 5 – 3-story hotel with a total of 74,010 square feet of building area

A total of 391 parking spaces will be provided, including ADA accessible spaces (Americans with Disabilities Act spaces). Infiltration trenches will be incorporated into some of the parking areas.

Area Calculations Summary (percent of 44.6-acre site):

Buildings – 118,188.3 square feet or 6.4 %

Parking/Landscaping – 279,239 square feet or 15%

Vineyard – 29.7 acres or 70.3% (Note: The initial phase of the vineyard has been developed on 17.73 acres located in the southern portion of the site (see below).

Vineyard over cave building (Phase 4) – 1.55 acres or 3.7 %

Olive trees – 1.89 acres or 4.4%

Primary access to the project will be taken from a 24-foot-wide paved entry drive off of De Portola Road. It will include an Arizona Crossing through Long Valley Wash. Acceleration/deceleration lanes will be constructed along De Portola Road. In the future, Monte De Oro Road will be improved to its half-width along the site's west property line.

Utilities and public services will be extended onto the site from existing facilities. Water will be provided by Rancho California Water District, gas by propane, electricity by Southern California Edison, telephone by Verizon – Business. Sewage disposal will be accomplished by a private septic tank system. Trash disposal will be provided by Waste Management of Inland Valley.

An Agricultural Grading/Clearing Certificate Exemption was obtained in August 7, 2017 (BFE 170055) by Ben Drake, President of Drake Enterprises, Inc., a farm management company specializing in the development, maintenance and marketing of winegrapes and avocados in Southern Riverside and Northern San Diego Counties. Per the certificate, 17.73 acres of land located in the southern portion of the site (south of Long Valley Wash) was ripped and blended, cross ripped to a depth of 3 feet then floated so planting could occur. The irrigation main lines were taken from an existing Rancho California Water District 3-inch water meter on De Portola Road. The grapevines were planted, and were put on a drip irrigation system. Service road access will be taken from De Portola and Monte De Oro Roads.

## 1.2 Site Description

The site is currently vacant and undeveloped with structures. According to Ben Drake, the western portion of the site was developed as a vineyard in the late 1960s, and was productive through 1999. An aerial photograph from 1996 shows that the hilly northern portion of the site was covered by native sage scrub vegetation, and the southern and eastern portions were covered by grassland vegetation and emergent vegetation associated with Long Valley Wash. By 2002 dirt bike trails were present through the hills, and the flat-lying areas at the base of the hills were cleared of all vegetation and agricultural crops. In 2003, the majority of the sage scrub growing on the hills was cleared. It appears that over the years, the nature of the habitat present along the wash and in the southern portion of the site was dependent on the amount of annual precipitation. Even with the above-average precipitation experienced during the 2016-2017 rainy season, most of that vegetation was severely drought stressed and either dead or dying.

## SECTION 2. ENVIRONMENTAL SETTING

### 2.1 Topography

Topography on the site has been altered in the past by agricultural clearing and grading, but rolling hill and valley contours characteristic of Long Valley are still apparent there. Topography in the northern half of the site is dominated by a series of elongate hilltops and ridges flanked by shallow U-shaped valleys. The ridges trend in general north-to-south directions, decreasing in elevations by about 40 feet (1630→1590 feet, 1620→1580 feet and 1580→1540 feet). The valleys also decrease about 40 feet in elevations between the ridges.

Relatively flat-lying terrain is present in the southern portion of the site. Elevations in this area range from a high of 1545 feet at the site's east property line to a low of 1515 feet at the west property line. This 30-foot change in elevation over a distance of over 1,500 feet is hardly noticeable. South of the wash, the terrain slopes in a general north-to-south direction toward De Portola Road. The change in elevation in this area ranges from 0-15 feet. As such, most of it is located within the 100-year flood limit.

## 2.2 Hydrography and Drainage

Long Valley Wash roughly bisects the site in a northeast-to-southwest direction, the direction of flow. It has been mapped as an intermittent blue-line stream on the USGS Topographic Map, 7.5 Minute Series, Bachelor Mountain, California Quadrangle. The wash meanders over a distance of approximately 1,500 linear feet on the site. The channel of this historic wash is difficult to detect in the eastern and central portions of the site. There are reaches that are not incised into the terrain. The channel is incised in the western portion of the site, where it varies from less than one-foot to about three feet into the terrain. There are earthen berms present along the north bank of the wash. Based on an aerial photograph from 1996, this area of the site was being used to grow winegrapes. The berm may have been constructed in this area to keep the wash from flooding the grapevines in the past.

There is a gully present in the northern portion of the site. It is confined to a small valley or ravine originally worn away by running water originating from the paved surfaces on the single-family residence located adjacent to the northeast corner of the site. The two main processes that result in the formation of gullies are downcutting and headcutting, which are forms of longitudinal (incising) erosion. These actions ordinarily result in erosional cuts that are often deeper than they are wide, with very steep banks and small beds. Gullies are younger than streams in geologic age, and typically lack an ordinary highwater mark (OHWM). They are commonly found in areas with low density vegetative cover and soils that are highly erodible.

After this gully formed, it conveyed storm water runoff downslope and into the central portion of the site characterized by low volume, infrequent and short duration flows that only occurred during and after precipitation events. The gully can be traced for approximately 500 linear feet before it disappears on the surface. From this point on, the runoff spread onto the surface in typical sheet flow fashion. There is no evidence that this gully had a recent confluence with Long Valley Wash. It now ends approximately 175 feet north of the wash.

Drainage on the site is by overland flow or downslope movement of storm water runoff (sheet flow) down the sloping hillsides. Some of the storm water runoff originating on the higher elevated terrain located in the northern portion of the site drains downslope directly into the wash and is carried downstream and off the site. Because the channel is not incised in the eastern portion of the site, storm water runoff drains onto the flat-lying southern portion of the site where it either percolates into the ground or flows into the drainage ditches present along the side of De Portola Road.

Storm water runoff also enters the southern portion of the site via culverts placed beneath De Portola Road. Gullies have also formed on the site downstream of the culverts.

## 2.3 Soils

Review of the “Soil Survey of Western Riverside Area, California” revealed that the surficial soils at the site are included in the Hanford-Tujunga-Greenfield Association (Soils of the Southern California Coastal Plain). Within this association, six soil types have been mapped on the site (**Soils Map**):

- AtD2 – Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded
- GzG – Gullied land
- HcC – Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 – Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- RuF – Rough broken land
- VmC – Visalia fine sandy loam, 2 to 8 percent slopes

## 2.4 Vegetation Associations and Species Composition

Based on the Habitat Accounts described in Volume 2 of the MSHCP, the Vegetation Associations occurring in the areas of the site that were surveyed are classified as Coastal Sage Scrub (17.2 acres), Grasslands (24.7 acres), and Riparian Scrub (0.4 acres) (**Biological Resources Map**).

The **Coastal Sage Scrub Vegetation Association** is distributed throughout Western Riverside County, occupying approximately 159,000 acres (12 percent) of the MSHCP Plan Area. It is represented by three subassociations: Diegan coastal sage, Riversidean sage scrub and undifferentiated coastal scrub. As with the vegetation growing on the site, Coastal Sage Scrub in Riverside County is contained in the **Riversidean Sage Scrub Mapped Subassociation**. Riversidean sage scrub is the dominant sage scrub Mapped Subassociation in the MSHCP Plan Area, occupying

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**Riversidean sage scrub** is growing on the hilltops, ridges and valleys present in the northern portion of the site. It is no longer contiguous with similar sage scrub growing in any direction. This area receives heavy dual-purpose motorcycle use (dirt bikes). Where it is relatively undisturbed between established trails, the growth form is closed canopy with a low abundance and diversity of sage scrub species. Where it is disturbed, it is mixed with a high percentage of invasive, non-native grasses and weeds.

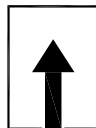
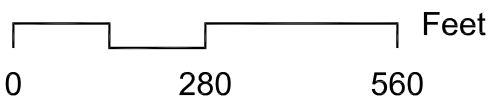
**SOILS LEGEND**

- AtD2 = Arlington and Greenfield fine sandy loams.
- GzG = Gullied land.
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- HcD2 = Hanford course sandy loam.
- RuF = Rough broken land.
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Source of Aerial Photo: Google Earth 10-21-2016

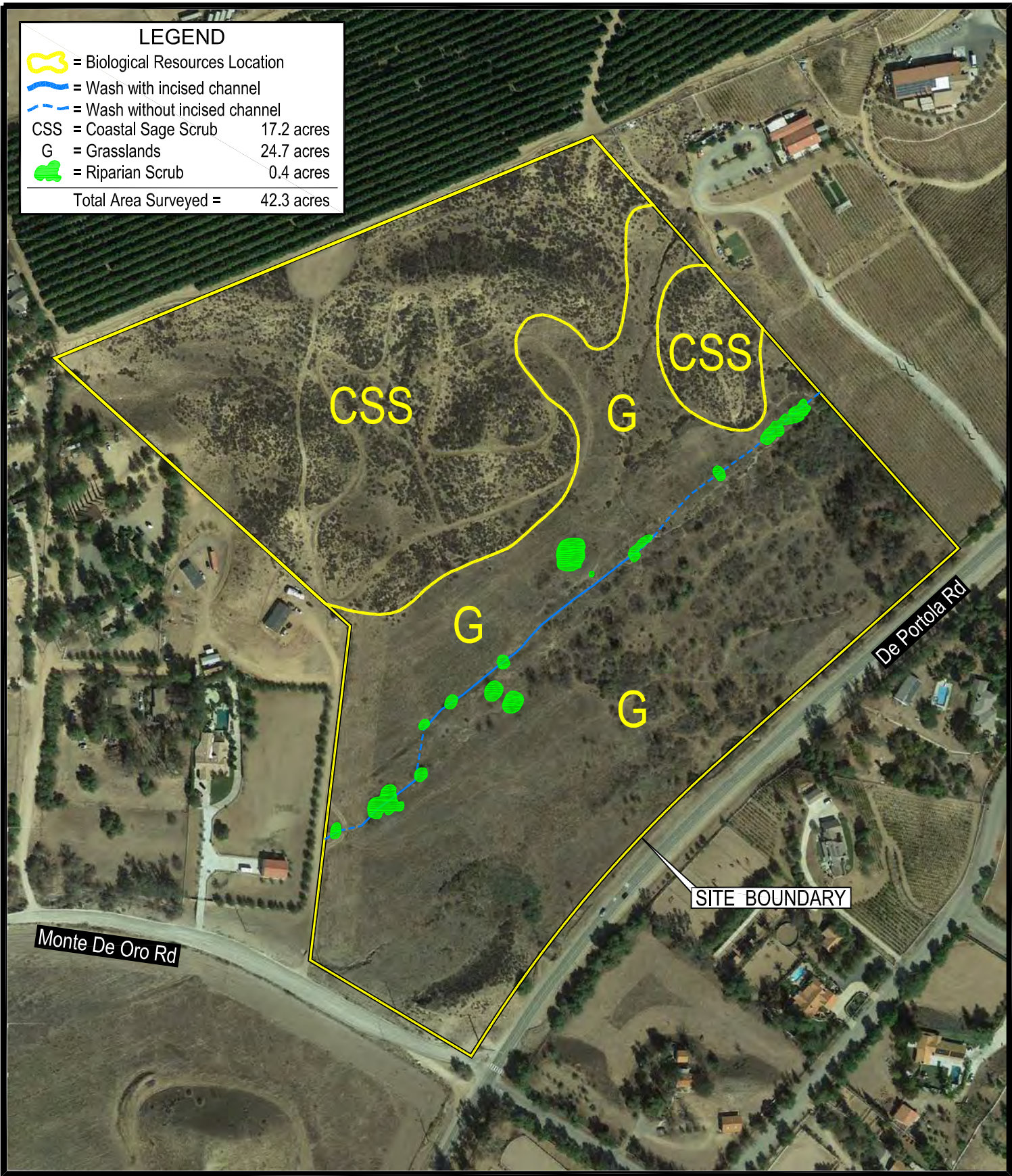
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**SOILS MAP**

PLOT PLAN T18003

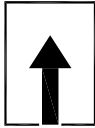
PRINCIPE AND ASSOCIATES



Source of Aerial Photo: Google Earth 10-21-2016

Scale: 1" = 280'

0      280      560      Feet



**BIOLOGICAL RESOURCES MAP**

PLOT PLAN T18003

PRINCIPE AND ASSOCIATES

The dominant sage scrub species is interior California buckwheat (*Eriogonum fasciculatum* subsp. *foliolosum*). Some of the other typical sage scrub species include coastal sagebrush (*Artemisia californica*), pine goldenbush (*Ericameria pinifolia*), Vasey's prickly pear (*Opuntia xvaseyi*), and yellow bush-penstemon (*Keckiella antirrhinoides* subsp. *antirrhinoides*). The understory is also composed of many of the forbs and grasses listed below.

**See attached Checklist of Vascular Plant Species for a complete list of species identified in the Riversidean Sage Scrub Mapped Subassociation.**

The **Grasslands Vegetation Association** occurs throughout most of Western Riverside County, and covers approximately 11.8% (154,421 acres) of the Plan Area. The **Non-native grasslands Vegetation Subassociation** is growing on the site. Non-native grasslands occur throughout the majority of the Plan Area (11.6%), usually within close proximity to urbanized or agricultural land uses.

Non-native grasslands are primarily composed of annual grass species introduced from the Mediterranean basin and other Mediterranean-climate regions with variable presence of non-native and native herbaceous species. Species composition of Non-native grasslands may vary over time and place based on grazing or fire regimes, soil disturbance and annual precipitation patterns. Non-native grasslands typically produce deep layers of organic matter which is inversely related to the abundance of non-native and native forbs. Non-native grasslands also typically support an array of annual forbs from the Mediterranean-climate regions. Low abundances of native species are sometimes present within Non-native grasslands.

**Non-native grasslands** occur primarily in southern portion of the site. It is growing in all previously disturbed areas, and now forms a mosaic with the sage scrub in the northern portion of the site. The ground covering is sparse in most areas, as the vegetation is periodically grazed and cleared for fire prevention purposes. Most of it is dominated by common and widespread non-native annual grass and weed species, but remnants of species that emerge in seasonally wet areas were also present. Dicot species include \*shortpod mustard (*Brassica geniculata*), \*lamb's quarters (*Chenopodium album*), \*summer cypress (*Kochia scoparia*), and \*Russian-thistle (*Salsola tragus*). Monocot species include \*slender wild oat (*Avena barbata*), \*brome grasses (*Bromus diandrus* and *B. hordeaceus*), and \*rattail fescue (*Vulpia myuros* var. *myuros*).

**See attached Checklist of Vascular Plant Species for a complete list of species identified in the Non-Native Grasslands Vegetation Subassociation.**

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\*Denotes non-native species throughout the text

Nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.



An aerial photograph from October 21, 2016 shows that trees had emerged in the southern portion of the site. Older aerial photographs show that storm water runoff has periodically been entering the southern portion of the site via drainage ditches located along the north side of De Portola Road. By the start of the nesting season surveys, two drainage ditches had resulted from storm water runoff entering the site downstream of culverts placed beneath De Portola Road. During certain years, they appear to have eroded drainageways through two or three portions of the site. Due to the above-average rainfall this year, these ditches were deeply incised and relatively long. They were likely the sources of fresh water for these trees. As the majority of the trees were growing a distance south of Long Valley Wash, their root systems were not growing in association with the hydrology of the wash.

Small (<2 feet tall) \*tree tobacco (*Nicotiana glauca*), willow (*Salix* spp.), Mexican elderberry (*Sambucus mexicana*), \*Peruvian pepper tree (*Schinus molle*), and \*Mediterranean tamarix (*Tamarix ramosissima*) seedlings were found growing in the southern portion of the site.

**Riparian Forest/Woodland/Scrub Vegetation Association** subtypes are spatially distributed in drainages throughout much of Western Riverside County, and cover approximately 1.1 percent (14,545 acres) of the Plan Area. Southern Cottonwood/Willow Riparian Forest makes up the largest proportion of the riparian vegetation in the Plan Area comprising nearly one-half of the acreage (6,610 acres). Large complexes containing several of the riparian forest, woodland and scrub types are located in several portions in the Plan Area. The Temecula area supports a diversity of riparian vegetation types among urban and agricultural land uses along Temecula Creek, Sandia Canyon and portions of Wolf Valley.

Long Valley Wash is present on the site. Based on species composition, the **Riparian Scrub Mapped Subassociation** is present along the wash. Based on the hydrological cycle and landform history and dynamics, the wash is only providing a low quality riparian habitat that is not dominated by trees or shrubs depend upon soil moisture from a nearby fresh water source. The entire habitat is severely drought stressed, whereas the few trees still standing are in poor shape and vigor.

The channel of this wash is difficult to detect in the eastern and central portions of the site. There are reaches that are not incised into the terrain. Mule fat (*Baccharis salicifolia*) is the only riparian species growing in these areas. Annual burweed (*Ambrosia acanthicarpa*), a common species found along sandy washes in lowlands, was also growing there. The other species are all upland types, and include \*shortpod mustard, interior California buckwheat, \*brome grasses, and jimsonweed (*Datura wrightii*). Mule fat is on the National Wetland Plant List (USDA 2012).

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growing there. The other species are all upland types, and include \*shortpod mustard, interior California buckwheat, \*brome grasses, and jimsonweed (*Datura wrightii*). Mule fat is on the National Wetland Plant List (USDA 2012).

The channel is incised in the western portion of the site, where it varies from less than one-foot to about three feet into the terrain. *The best examples of Riparian Scrub are present in this portion of the site, but note that the trees are sparse, the canopy is open and intermittent, and the condition and vigor of the trees is poor.* Typical riparian species found growing in this area are western cottonwood (*Populus fremontii* subsp. *fremontii*), black willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis* var. *lasiolepis*). Black, red and arroyo willows are on the National Wetland Plant List (USDA 2012), western cottonwood is not.

**See attached Checklist of Vascular Plant Species for a complete list of species identified in the Riparian Scrub Mapped Subassociation.**

## 2.5 Wildlife Species Observed

A moderate abundance and diversity of wildlife was observed at the site. Native wildlife habitat is primarily provided by the Riversidean sage scrub and the trees, but a few species were observed foraging in the Non-native grasslands. The species composition consists of common and opportunistic species that are adapted to exploit available habitats or resources in close proximity to man. Species observed include the western fence lizard (*Sceloporus occidentalis*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), northern flicker, red-shafted flicker group (*Colaptes auratus*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), western bluebird (*Sialia mexicana*), northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), chipping sparrow (*Spizella passerina*), Savannah sparrow (*Passerculus sandwichensis*), house finch (*Carpodacus mexicana*), and desert cottontail (*Sylvilagus audubonii*).

Diagnostic animal signs were limited to Botta's pocket gopher (*Thomomys bottae*) mounds and coyote (*Canis latrans*) scat in the grasslands habitat, and pocket mice (*Perognathus* sp.), deer mice (*Peromyscus* sp.) and California ground squirrel (*Spermophilus beecheyi*) burrows in the mixed grasslands and sage scrub habitat.

There is a remnant of a raptor nest in the largest western cottonwood tree present on the site. During the four nesting season surveys conducted on the site for the burrowing owl, it was not being used by any bird species. Additional surveys were conducted at the site on September 29, October 4 and 17, 2017 and January 5 and February 9, 2018 which coincided with the nesting season for raptors (September 1 to January 14) and for songbirds (September 1 to February 14). There were no nesting activities observed during those survey dates.

## 2.6 Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, by human disturbance, or by the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Wildlife movement corridors can often mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby allowing depleted populations to be replenished, (2) providing escape routes from fire, predators and human disturbances, thus reducing the risk that catastrophic events such as fire or disease will result in population or local species extinction and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three categories: (1) dispersal (defined as juvenile animals moving from natal areas and individuals extending range distributions), (2) seasonal migration and (3) movements related to home range activities such as foraging for food or water, defending territories or searching for mates, breeding areas or cover. A number of terms have been used in various wildlife movement studies, such as wildlife corridor, travel route, habitat linkage, and wildlife crossing, to refer to areas in which wildlife move from one area to another.

### *Wildlife Movement on the site*

Long Valley Wash is providing a wildlife movement corridor for migrations, foraging movements and/or for finding a mate through this portion of Rancho California. The site does not however connect two or more larger core habitat areas that would otherwise be fragmented or isolated from one another. Long Valley Wash upstream of the site meanders through low density residential developments and commercial wineries and vineyards for approximately 1.4 miles to Glenoaks Road. This area is providing a marginal wildlife movement corridor. Upstream and northeast of Glenoaks Road, Long Valley Wash is still providing a viable wildlife corridor to where it originates on the Glenoaks Hills. Long Valley Wash downstream of the site meanders through low density residential developments and open agricultural lands for approximately 2.3 miles to Anza Road where it is still providing a viable wildlife movement corridor. Downstream and west of Anza Road, it is highly fragmented through developed areas and is no longer providing a wildlife movement corridor.

## SECTION 3. MSHCP CONSISTENCY ANALYSIS

### 3.1 Western Riverside County MSHCP

Based on the final Western Riverside County MSHCP (adopted June 17, 2003), the parcel of land comprising the project site is 'Not A Part' of cell criteria under the MSHCP (see **Riverside County Integrated Project (RCIP) Conservation Summary Report**

**Generator attached).** As such, the project is not located within a Cell, Cell Group or Sub Unit of the Southwest Area Plan. In addition, the site is not located within or along the boundaries of Western Riverside County Regional Conservation Agency (RCA) Conserved Lands or MSHCP Public/Quasi-Public Conserved Lands.

### **3.2 Project Relationship to MSHCP Reserve Assembly**

As stated above, the site is not located within a designated Cell, Cell Group or Sub Unit of the Southwest Area Plan. Therefore, conservation has not been described for this site.

The site is located approximately 0.5 miles south of the closest MSHCP Conservation Area - Cell #6694 of Cell Group C in the Vail Lake Sub Unit (SU3) of the Southwest Area Plan. The MSHCP states that conservation within this Cell Group will contribute to the assembly of Proposed Core 7 and Proposed Constrained Linkage 24. Proposed Core 7 is comprised of a mosaic of upland and wetland habitat types in the Vail Lake, Sage and Wilson Valley areas. Proposed Linkage 24 is comprised of the portion of Temecula Creek east of Redhawk Parkway and west of Pauba Road. Specifically, conservation within this Cell Group will range from 60%-70% of the Cell Group focusing in the southern and central portions of the Cell Group.

The site is located approximately 1.1 miles south of the central portion of Cell Group C where conservation within this Cell Group will contribute to the assembly of Proposed Core 7. It is also located approximately 4.2 miles northeast of where conservation within this Cell Group will contribute to the assembly of Proposed Constrained Linkage 24.

The site does not have direct relationships to the assembly of Proposed Core 7 or Proposed Constrained Linkage 24.

### **3.3 MSHCP Implementation Structure**

In addition, Section 6.0 of the MSHCP, the MSHCP Implementation Structure, imposes all other terms of the MSHCP, including but not limited to the protection of species associated with riparian/riverine areas and vernal pools, narrow endemic plant species, urban/wildlands interface guidelines, and additional survey needs and procedures set forth in Sections 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.3.2, and 6.4.

#### ***Section 6.1.1 - Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS)***

As stated above, the site is not located within an area that has been identified in the MSHCP as an area where conservation potentially needs to occur. A HANS Application will not then have to be reviewed by Planning Department staff from the Environmental Programs Division pursuant to the MSHCP and the Riverside County's General Plan.

**The project is consistent with Section 6.1.1 of the MSHCP.**

### **Section 6.1.2 - Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools**

Portions of the incised channel of Long Valley Wash are located on the site. Based on hydrographic characteristics, the streambed and its associated Riparian Scrub habitat meet the MSHCP definition of Riparian/Riverine Areas: *“lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year”*. Therefore, the biological functions and values of Riparian/Riverine Areas exist, but to a minimum. 0.4 acres of suitable riparian/riverine habitats for the species listed under ‘Purpose’ in Volume 1, Section 6.1.2 of the MSHCP were mapped at the site.

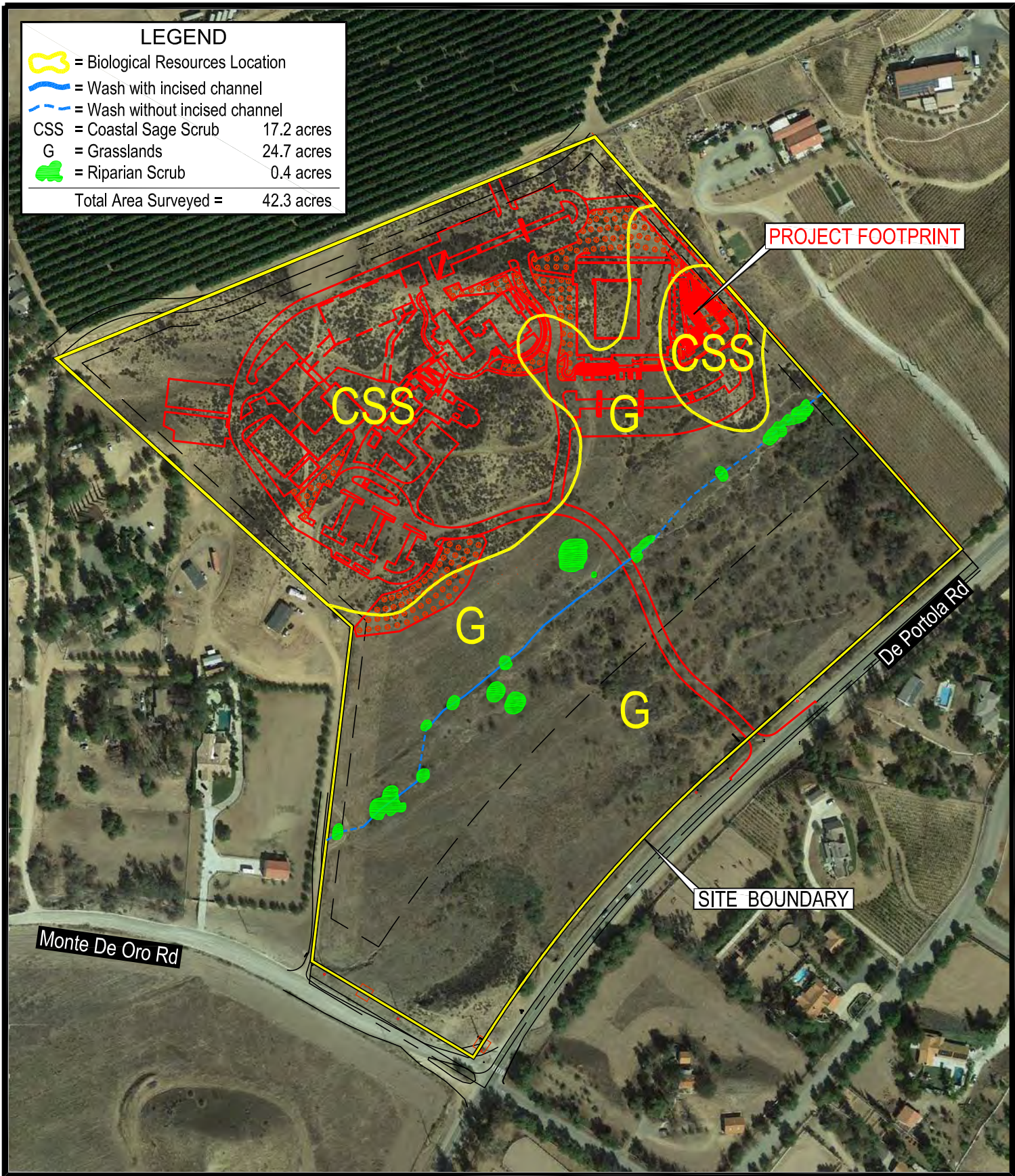
As described in the Project Description, access to the project will be taken from a 24-foot-wide paved entry drive. And, a 24-foot-wide paved Arizona Crossing will be provided through Long Valley Wash. The channel of Long Valley Wash is approximately 3 feet wide at this location, thus resulting in an impact to an unvegetated Riverine Area of approximately 72 square feet (0.001653 acres). The construction of the Arizona Crossing through Long Valley Wash will result in an impact on Riparian/Riverine Areas (**Biological Resources/Project Footprint Map**).

Due to the impact on Riparian/Riverine Areas, the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report based on Western Riverside County MSHCP guidelines is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (the ‘Wildlife Agencies’) prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Also, due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps of Engineers and California Department of Fish and Wildlife (the ‘Regulatory Agencies’) prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Other kinds of aquatic features that could provide suitable habitat for endangered and threatened species of fairy shrimp are not present on the site (e.g. vernal pools or swales, vernal pool-like ephemeral ponds, stock ponds or other human-modified depressions such as tire ruts, etc.).

Topography in the northern half of the site is dominated by a series of elongate hilltops and ridges flanked by shallow U-shaped valleys. The ridges trend in general north-to-south directions, decreasing in elevations by about 40 feet. The valleys also decrease



Source of Project Footprint: CAD file of Portola Winery 2-13-2018

Scale: 1" = 280'

0 280 560 Feet

**BIOLOGICAL RESOURCES / PROJECT FOOTPRINT MAP**

PLOT PLAN T18003

PRINCIPE AND ASSOCIATES

about 40 feet in elevations between the ridges. There was no evidence discovered in that portion of the site of the retention of storm water in naturally-occurring ponds or manmade depressions.

Relatively flat-lying terrain is present in the southern portion of the site. South of the wash, the terrain slopes in a general north-to-south direction toward De Portola Road. Because the channel was not incised in the eastern portion of the site, storm water runoff drained onto the flat-lying southern portion of the site where it either percolated into the ground or flowed into the drainage ditches present along the side of De Portola Road. During the four nesting season surveys for the burrowing owl conducted between July 17 and August 10, 2017 there was no evidence discovered in that portion of the site of the retention of storm water in naturally-occurring pools or manmade depressions. The majority of the soils mapped in that area, Hanford and Visalia sandy loams, were loose and uncompacted when the burrowing owl surveys were being conducted. At that time when data was first being collected to complete this section of the MSHCP Consistency Analysis, it was determined that they did not appear capable of ponding water long enough to support fairy shrimp. The statement was then made that the biological functions and values of Vernal Pools did not exist. Suitable habitats for the species listed under the heading "Purpose" in this section of the MSHCP were not present there.

Please note that when additional surveys were conducted at the site on September 29 and October 4, 2017, the southern portion of the site was ripped and blended, cross ripped to a depth of 3 feet then floated so planting of a vineyard could occur (per Agricultural Grading/Clearing Certificate Exemption BFE 170055). When two more surveys were conducted at the site on January 5 and February 9, 2018, the vineyard was developed with a 3-wire trellis system plus a drip irrigation line, metal strained wire fence supports and braced metal posts. The vineyard will continue to be developed and maintained to grow grapes for the production of wines under a new label for the foreseeable future. Potential fairy shrimp habitat is no longer present in the southern portion of the site.

Other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands as defined by Section 404 of the Clean Water Act are also not present on the site (e.g., rivers, open waters, swamps, marshes, bogs, fens, etc.). The site does not have a direct relationship to existing wetland regulations.

**The project is not consistent with Section 6.1.2 of the MSHCP.**

### ***Section 6.1.3 - Protection of Narrow Endemic Plant Species***

Based on Figure 6-1 of the MSHCP, the site is not located within a Narrow Endemic Plant Species Survey Area.

**The project is consistent with Section 6.1.3 of the MSHCP.**

### **Section 6.1.4 - Guidelines Pertaining to the Urban/Wildlands Interface**

As stated above, the site does not have direct relationships to the assembly of Proposed Core 7 or Proposed Constrained Linkage 24. The maintenance of large intact interconnected habitat blocks and wetland functions and values of Vail Lake and portions of several creeks are important for the Planning Species listed for Proposed Core 7. The site is located approximately 1.1 miles south of where conservation will contribute to the assembly of Proposed Core 7. As a 250-foot buffer is used in the MSHCP to complete an edge analysis, development on the site will not be subject to the treatment and management of edge conditions necessary to ensure habitat quality for species using Proposed Core 7. It then appears that the project will not be subject to Guidelines Pertaining to the Urban/Wildlands Interface for indirect effects of adjacent land uses and/or the treatment and management of edge factors such as lighting, urban runoff, toxics, and domestic predators as presented in *Section 6.1.4 of the MSHCP, Volume 1, The Plan*.

The maintenance of habitat quality and the maintenance of existing floodplain processes along Temecula Creek are important for the Planning Species listed for Proposed Constrained Linkage 24. The site is located approximately 4.2 miles northeast of where conservation will contribute to the assembly of Proposed Constrained Linkage 24. As a 250-foot buffer is used in the MSHCP to complete an edge analysis, development on the site will not be subject to the treatment and management of edge conditions along this linkage to ensure that it provides habitat and movement functions for Planning Species. It again appears that the project will not be subject to Guidelines Pertaining to the Urban/Wildlands Interface for indirect effects of adjacent land uses and/or the treatment and management of edge factors such as lighting, urban runoff, toxics, and domestic predators as presented in *Section 6.1.4 of the MSHCP, Volume 1, The Plan*.

**The project is consistent with Section 6.1.4 of the MSHCP.**

### **Section 6.3.2 - Additional Survey Needs and Procedures**

Based on Figures 6-2 (Criteria Area Species Survey Areas), 6-3 (Amphibian Species Survey Areas) and 6-5 (Mammal Species Survey Areas) of the MSHCP, the site is not located in an area where additional surveys are needed for certain species in conjunction with MSHCP implementation in order to achieve coverage for these species. Also, the site is not located in a Special Linkage Area.

The site is however located within the Burrowing Owl Survey Area, Figure 6-4 of the MSHCP. Based on the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, an independent assessment was made of the presence or absence of burrowing owl habitats on the site and in a 150-meter buffer zone around the project boundary.

The assessment determined that the site and portions of the buffer zone were providing suitable burrowing owl habitats consisting of relatively large open expanses of annual grassland on gentle rolling and level terrain with active small mammal burrows. Required



habitat features capable of being used for nesting and roosting were minimal on the site and in buffer zone, and included California ground squirrel burrows and artificial burrows (culverts).

A Nesting Season Survey following the survey instructions was then undertaken. Four surveys were conducted between July 17 and August 10, 2017. During the 2017 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone. There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last year.

The Revised Nesting Season Survey for the Burrowing Owl prepared by Principe and Associates (April 2, 2018) was approved by the Riverside County Planning Department, Environmental Programs department on April 3, 2018.

Completion of this Nesting Season Survey is consistent with Species Conservation Objective 5 of the MSHCP that was developed for the burrowing owl. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site. The proposed project site would then be consistent with Species Conservation Objective 6 of the MSHCP.

**The project is consistent with Section 6.3.2 of the MSHCP.**

#### ***Section 6.4 - Fuels Management***

Fuels management focuses on hazard reduction for humans and their property. Fuels management for human safety must continue in a manner that is compatible with public safety and conservation of biological resources. Fuels management for human hazard reduction involves reducing fuel loads in areas where fire may threaten human safety or property, suppressing fires once they have started, and providing access for fire suppression equipment and personnel. It is recognized that brush management to reduce fuel loads and protect urban uses and public health and safety shall occur where development is adjacent to the MSHCP Conservation Area.

The site is not located adjacent to a MSHCP Conservation Area. Based on existing fuels management policies, it does not appear that fuels management will be required for future land uses on the site. Grading will however result in the removal of the Riversidean sage scrub growing on the hills and valleys located in the northern portion of the site that may threaten human safety or property during a wildfire.

**The project is consistent with Section 6.4 of the MSHCP.**

## SECTION 4. THRESHOLDS OF SIGNIFICANCE

Thresholds of Significance are used by public agencies in the determination of the significance of environmental effects. A Threshold of Significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. In general, exceeding Thresholds of Significance means the effect will be determined to be significant by the agency, while deceeding Thresholds of Significance means the effect will be determined to be less than significant.

Impacts on biological resources resulting from the proposed project will be based on the following **Levels of Significance**:

- **Potentially Significant Impact** applies where a project is one that has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or wildlife community, or (5) reduce the number or restrict the range of an endangered, rare or threatened Species (CEQA Section 15065(a)).
- **Less Than Significant Impact with Mitigation Measures Incorporated** applies where a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on biological resources, and/or would mitigate the significant effect to a point where clearly no significant effect on biological resources would occur.
- **Less Than Significant Impact** applies where the project creates no significant impact on biological resources.
- **No Impact** applies where a project does not create an impact on biological resources.

The Levels of Significance are then applied to a checklist of questions addressing biological resources to be answered during the initial assessment of a project. The impacts on biological resources resulting from the proposed project have been analyzed and used to answer the checklist of questions on Thresholds of Significance.

<p><b>Threshold BIO A - Will the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</b></p>
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**Answer: Less Than Significant Impact with Mitigation Measures Incorporated**

The California Natural Diversity Database (CNDDDB) for the Bachelor Mountain, California Quadrangle does not include any occurrence records of plant and wildlife species

identified as candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) on the site.

The CNDDDB, including databases from CDFW, USFWS, California Native Plant Society, and MSHCP, was reviewed for all pertinent information regarding the localities of known observations of sensitive plant and wildlife species and habitats in the vicinity of the site. Using those database sources, plant and wildlife lists were compiled.

Generally, 50 listed plant species and 40 listed wildlife species are considered when preparing biological studies on sites located within the greater Temecula Valley area:

Based on the plants list, a number of species are found in Coastal Sage Scrub, Grasslands and Riparian Scrub habitats present in the vicinity of the site. Many sensitive or special status species are not expected to occur at the site because of the absence of suitable growing habitats (i.e., vernal pools, saline-alkaline soils, clay soils, sandy or rocky places, etc.). Overall, plant species would be assessed a low probability of occurring at this site. The grassland vegetation is periodically grazed and cleared for fire prevention purposes and the Coastal Sage Scrub and Riparian Scrub habitats are severely drought stressed and mixed with a high percentage of invasive, non-native grasses and weeds.

Ground disturbance activities could result in the loss of some species, but would not be substantial enough to have the potential to reduce the number or restrict the range of candidate, sensitive or special status plant species. The MSHCP includes a Mitigation Fee to assist in providing revenue to acquire and preserve vegetation communities and natural areas within Riverside County which are known to support populations of threatened, endangered or key sensitive populations of plant species (see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below).

Based on the wildlife list, a number of species are found in Coastal Sage Scrub, Grasslands and Riparian Scrub habitats present in the vicinity of the site. Many sensitive or special status species are not expected to occur at the site because of the absence of suitable habitats (i.e., vernal pools and swales, permanent or temporary freshwater ponds, dense streamside vegetation, rock outcrops, etc.). Overall, wildlife species would be assessed a low probability of occurring at this site. The grassland vegetation is periodically grazed and cleared for fire prevention purposes and the Coastal Sage Scrub and Riparian Scrub habitats are severely drought stressed. The shrubs and trees are in poor shape and vigor, and are providing low quality habitats.

In terms of impacts, highly mobile sensitive or special status wildlife species would not be lost during ground disturbance activities. These species would likely abandon the entire project site and relocate to other suitable habitat available in the vicinity. Ground disturbance activities could result in the loss of some less-mobile species, but would not be substantial enough to have the potential to reduce the number or restrict the range of candidate, sensitive or special status wildlife species. Again, the MSHCP includes a Mitigation Fee to assist in providing revenue to acquire and preserve vegetation communities and natural areas within Riverside County which are known to support

populations of threatened, endangered or key sensitive populations of wildlife species (see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below).

The Migratory Bird Treaty Act (MBTA) of 1918 (USC 703711) is an international treaty that makes it unlawful to take, possess, buy sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). In addition, Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Suitable nesting habitats for migratory birds are present on the site. The Riversidean sage scrub, Non-native grasslands and Riparian scrub provide potential nesting habitats for perching and ground dwelling bird species predatory bird species. The bird species observed at or have a probability of occurring on the site are bird species governed by the MBTA, and are listed in 50 CFR Part 10. The MBTA requires that project-related disturbances at active nesting territories be reduced or eliminated during critical phases of the nesting cycle. The removal of vegetation and/or destruction of nests during the breeding season are considered potentially significant impacts. Compliance with the MBTA would reduce impacts to a less than significant level (see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below).

Kinds of natural-occurring or manmade aquatic features that could provide suitable habitats for endangered and threatened species of fairy shrimp are not present on the site.

During the 2017 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, animal signs diagnostic of burrowing owls that are sometimes overlooked were not discovered anywhere on the site or in the buffer zone. There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last year. To ensure direct mortality of burrowing owls is avoided in the future, a pre-construction presence/absence survey should be conducted within thirty (30) days prior to ground disturbance at the site (see Section 5. Project Design Features and Mitigation Measures That Will Reduce Impacts below).

<p><b>Threshold BIO B - Will the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?</b></p>
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***Answer: Less Than Significant Impact with Mitigation Measures Incorporated***

The biological functions and values of Riparian/Riverine Areas exist, but to a minimum. 0.4 acres of suitable riparian/riverine habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP were mapped at the site.

As described in the Project Description, access to the project will be taken from a 24-foot-wide paved entry drive. And, a 24-foot-wide paved Arizona Crossing will be provided through Long Valley Wash. The channel of Long Valley Wash is approximately 3 feet wide at this location, thus resulting in an impact to an unvegetated Riverine Area of approximately 72 square feet (0.001653 acres). The construction of the Arizona Crossing through Long Valley Wash will result in an impact on Riparian/Riverine Areas.

Due to the impact on Riparian/Riverine Areas, the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report based on Western Riverside County MSHCP guidelines is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (the 'Wildlife Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Also, due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps of Engineers and California Department of Fish and Wildlife (the 'Regulatory Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Riversidean sage scrub is the dominant Coastal Sage Scrub Mapped Subassociation in the MSHCP Plan Area, occupying approximately 10.3 percent (136,278 acres) of the Plan Area. The project will result in the removal of approximately 12 acres of Riversidean sage scrub. This amount of removal is considered to be less than significant as the sage scrub habitat does not possess high quality functions and values to be considered a sensitive biological resource.

<p><b>Threshold BIO C - Will the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</b></p>
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***Answer: Less Than Significant Impact with Mitigation Measures Incorporated***

Long Valley Wash does not qualify as a federally protected wetland because it does not meet the three criteria of a wetland as defined in Section 404 of the Clean Water Act (hydrophytic vegetation, hydric soils and hydrology). Other kinds of perennial or seasonal aquatic features that could be classified as federally protected wetlands are also not present on the site (i.e., rivers, open waters, swamps, marshes, bogs, fens, etc.).

Due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps

of Engineers and California Department of Fish and Wildlife (the 'Regulatory Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

**Threshold BIO D - Will the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas?**

***Answer: Less Than Significant Impact with Mitigation Measures Incorporated***

Long Valley Wash is providing a wildlife movement corridor for migrations, foraging movements and/or for finding a mate through this portion of Rancho California. The site does not however connect two or more larger core habitat areas that would otherwise be fragmented or isolated from one another. Long Valley Wash and its associated Riparian scrub habitat will remain on the site in its existing condition (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

**Threshold BIO E - Will the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

***Answer: Less Than Significant Impact with Mitigation Measures Incorporated***

Riverside County land use-based conservation goals and policies are in place to protect:

- the ecological and lifecycle needs of threatened, endangered, or otherwise sensitive species and their associated habitats;
- the groundwater aquifer, water bodies, and water courses, including reservoirs, rivers, streams, and the watersheds located throughout the region, and to conserve and efficiently use water;
- floodplain and riparian areas, wetlands, forest, vegetation, and environmentally sensitive lands; and,
- native oak trees, specimen trees and trees with historical significance (heritage).

Due to the impact on Riparian/Riverine Areas, the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report based on Western Riverside County MSHCP guidelines is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (the 'Wildlife Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps of Engineers and California Department of Fish and Wildlife (the 'Regulatory Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

**Threshold BIO F - Will the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

***Answer: Less Than Significant Impact with Mitigation Measures Incorporated***

The site is not located within a designated Cell, Cell Group or Sub Unit of the Southwest Area Plan. Also, the site is not located within or along the boundaries of RCA Conserved Lands or MSHCP Public/Quasi-Public Conserved Lands.

The site is located approximately 0.5 miles south of the closest MSHCP Conservation Area, Cell Group C, and approximately 1.1 miles south of the central portion of Cell Group C where conservation within this Cell Group will contribute to the assembly of Proposed Core 7. It is also located approximately 4.2 miles northeast of where conservation within this Cell Group will contribute to the assembly of Proposed Constrained Linkage 24. The site does not have direct relationships to the assembly of Proposed Core 7 or Proposed Constrained Linkage 24.

The site is not located within an area that has been identified in the MSHCP as an area where conservation potentially needs to occur. A HANS Application will not then have to be reviewed by Planning Department staff from the Environmental Programs Division pursuant to the MSHCP and the Riverside County's General Plan.

The biological functions and values of Riparian/Riverine Areas exist, but to a minimum. 0.4 acres of suitable riparian/riverine habitats for the species listed under 'Purpose' in Volume 1, Section 6.1.2 of the MSHCP were mapped at the site.

As described in the Project Description, access to the project will be taken from a 24-foot-wide paved entry drive. And, a 24-foot-wide paved Arizona Crossing will be provided through Long Valley Wash. The channel of Long Valley Wash is approximately 3 feet wide at this location, thus resulting in an impact to an unvegetated Riverine Area of approximately 72 square feet (0.001653 acres). The construction of the Arizona Crossing through Long Valley Wash will result in an impact on Riparian/Riverine Areas.

Due to the impact on Riparian/Riverine Areas, the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report based on Western Riverside County MSHCP guidelines is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Fish and Wildlife Service and California Department of

Fish and Wildlife (the 'Wildlife Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

Also, due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps of Engineers and California Department of Fish and Wildlife (the 'Regulatory Agencies') prior to any public hearing or entitlement approval on this property (see Section 5. Project Design Features and Mitigation Measures That Reduce Impacts).

The biological functions and values of Vernal Pools do not exist on the site. Suitable habitats for the species listed under the heading "Purpose" in Volume 1, Section 6.1.2 of the MSHCP are not present there.

The site does not have a direct relationship to existing wetland regulations.

The site is not located within Narrow Endemic Plant Species Survey Area.

The site is located approximately 1.1 and 4.2 miles from proposed MSHCP Conservation Areas. As such, development on the site will not be subject to the treatment and management of edge conditions necessary to ensure habitat quality for Planning Species using Proposed Core 7, nor will it be subject to the treatment and management of edge conditions along Proposed Constrained Linkage 24 to ensure that it provides habitat and movement functions for Planning Species. It then appears that the project will not be subject to Guidelines Pertaining to the Urban/Wildlands Interface for indirect effects of adjacent land uses and/or the treatment and management of edge factors.

The site is not located in an area where additional surveys are needed for Criteria Area, Amphibian or Mammal Species in conjunction with MSHCP implementation in order to achieve coverage for these species. Also, the site is not located in a Special Linkage Area.

The site is located within the Burrowing Owl Survey Area. As such, an independent assessment was made of the presence or absence of burrowing owl habitats on the site and in a 150-meter buffer zone around the project boundary. The assessment determined that the site and portions of the buffer zone were providing suitable burrowing owl habitats. A Nesting Season Survey report was then prepared. Four surveys were conducted between and July 17 and August 10, 2017. During the 2017 Nesting Season Survey, burrowing owls were not observed. Required burrowing owl habitats capable of being used for nesting and roosting were not being used. Also, animal signs diagnostic of burrowing owls were not discovered anywhere on the site or in the buffer zone. There was no evidence of either active habitats presently being used by burrowing owls, or habitats abandoned within the last year. Completion of the Nesting Season Survey is consistent with Species Conservation Objective 5 of the MSHCP that was developed for the burrowing owl.



The site is not located adjacent to a MSHCP Conservation Area. Based on existing fuels management policies, it does not appear that fuels management will be required for future land uses on the site. Grading will however result in the removal of the Riversidean sage scrub growing on the hills and valleys located in the northern portion of the site that may threaten human safety or property during a wildfire.

## **SECTION 5. PROJECT DESIGN FEATURES AND MITIGATION MEASURES THAT REDUCE IMACTS**

### **Project Design Features**

A project-specific Water Quality Management Plan (WQMP) will be prepared for the project. The WQMP will comply with Riverside County Flood Control and Water Conservation District requirements for the 2010 Santa Margarita Region, Municipal Separate Storm Sewer System (MS4) Permit which includes the requirement for the preparation and implementation of a project-specific WQMP. As required by Riverside County, it will also be in compliance with the San Diego Regional Water Quality Control Board requirements to ensure that the quantity and quality of runoff discharged off the site is not altered in an adverse way when compared with existing conditions. In particular, measures will be put in place to avoid discharge of untreated surface runoff from developed and paved areas into Long Valley Wash.

Project-specific WQMP best management practices (BMPs) will also be used to ensure that siltation and erosion are minimized during and after construction, and will be incorporated into the final design of the project in order to ensure that water quality is not degraded. Regular maintenance of the proposed BMPs will be provided by Fertile Soil, LLC to ensure effective operations of runoff control systems. Construction Guidelines and Standard BMPs are set forth in *Section 7.5.3 and Appendix C of the MSHCP, Volume 1*. No disturbed surfaces will be left without erosion control measures in place from October 1 through April 15.

As required by Riverside County, a site-specific storm drain system will also be designed and engineered for the project site. Stormwater facilities shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes along Long Valley Wash. The basic concept will be that all of the storm water runoff generated by the project will be directed to water quality basins or similar facilities where it will be treated.

The final design of the project will also consider and comply with National Pollution Discharge Elimination System, NPDES. Fertile Soil, LLC will comply by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). The plan is managed by the California Water Resources Control Board. The SWPPP will develop BMPs which will be used to ensure that siltation and erosion are minimized during construction.

## Mitigation Measures

As described in the Project Description, access to the project will be taken from a 24-foot-wide paved entry drive. And, a 24-foot-wide paved Arizona Crossing will be provided through Long Valley Wash. The channel of Long Valley Wash is approximately 3 feet wide at this location, thus resulting in an impact to an unvegetated Riverine Area of approximately 72 square feet (0.001653 acres). The construction of the Arizona Crossing through Long Valley Wash will result in an impact on Riparian/Riverine Areas.

Due to the impact on Riparian/Riverine Areas, the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report based on Western Riverside County MSHCP guidelines is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (the 'Wildlife Agencies') prior to any public hearing or entitlement approval on this property. A finding demonstrating that although the proposed project would not avoid impacts, with proposed project design features and mitigation measures, the project would be Biologically Equivalent or Superior to that which would occur under an Avoidance Alternative without these measures.

If an avoidance alternative is selected, measures shall be incorporated into the project design to ensure the long-term Conservation of the areas to be avoided, and associated functions and values, through the use of deed restrictions, conservation easement, or other appropriate mechanisms.

If an avoidance alternative is not Feasible, a practicable alternative that minimizes direct and indirect effects to riparian/riverine areas and vernal pools and associated functions and values to the greatest extent possible shall be selected. Those impacts that are unavoidable shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth below under the DBESP.

The purpose of the DBESP will be to ensure there are no lost functions and values for Riparian/Riverine Areas as they relate to covered species. Focused surveys for the least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo could be required, and avoidance and minimization measures will be implemented in accordance with the specie-specific conservation objectives for those species.

Also, due to the impact on Long Valley Wash, the preparation of a Jurisdictional Delineation is required for this project. It must be submitted to, reviewed and approved by the Riverside County Planning Department, Environmental Programs Division and the U.S. Army Corps of Engineers and California Department of Fish and Wildlife (the 'Regulatory Agencies') prior to any public hearing or entitlement approval on this property.

To ensure direct mortality of burrowing owls is avoided in the future, a pre-grading/construction presence/absence survey will be conducted within thirty (30) days prior to ground disturbances at the site and follow the MSHCP 30-Day Pre-Construction Burrowing Owl Survey Report Format (Revised: August 17, 2006).

Riversidean sage scrub, Non-native grasslands and trees are present on the site that have the potential to provide suitable nesting habitat for migratory birds. Nesting activity typically occurs from February 15 to August 31. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Game Code Section 3503. The removal of vegetation and/or destruction of nests during the breeding season are considered potentially significant impacts. Compliance with the MBTA would reduce potential impacts to a less than significant level.

Fertile Soil, LLC shall demonstrate to the satisfaction of the Riverside County Planning Department that either of the following has been or will be accomplished:

- Riversidean sage, Non-native grasslands scrub and tree removals shall be scheduled outside the nesting season (September 1 to February 14 for songbirds; September 1 to January 14 for raptors) to avoid potential impacts to nesting birds.
- Any construction activities that occur during the nesting season (February 15 to August 31 for songbirds; January 15 to August 31 for raptors) will require that the Riversidean sage scrub and trees are thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of clearing. If any active nests are detected, then a buffer of at least 300 feet (500 feet for raptors) will be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor to minimize impacts.

The USFWS and CDFW have issued permits pursuant to the Federal Endangered Species Act and the California Natural Community Conservation Planning Act authorizing “Take” of certain species in accordance with the terms and conditions of the acts, the Western Riverside County MSHCP and the associated Implementing Agreement. Under the acts, certain activities by the applicant will be authorized to “Take” certain species, provided all applicable terms and conditions of the acts, MSHCP and the associated Implementing Agreement are met.

With the take permits issued to the County, 118 of 146 species covered by the MSHCP will be adequately conserved. The MSHCP has addressed the Federal, State and local project-specific mitigation requirements for each of these species and their specific habitats. The MSHCP will mitigate direct, indirect and cumulative impacts resulting from the take of these 118 adequately conserved species by establishing and maintaining a reserve system consisting of approximately 500,000 acres (347,000 acres are currently within public ownership, and 153,000 acres are currently in private ownership). Impacts to adequately conserved species will not require additional mitigation under the Endangered Species Act or the California Environmental Quality Act, but will require the following:

- In order to implement the goals and objectives of the MSHCP and to mitigate the impacts caused by new development in the unincorporated area of Riverside County, lands supporting species covered by the MSHCP must be acquired and conserved. A development fee is necessary in order to supplement the financing of the acquisition of lands supporting species covered by the MSHCP and to pay for new

development's fair share of this cost. The appropriate funding source to pay the costs associated with mitigating the impacts of new development to the natural ecosystems and covered species is a fee for residential, commercial and industrial development. The amount of the fee is determined by the nature and extent of the impacts from the development to the identified natural ecosystems and the relative cost of mitigating such impacts. Fertile Soil, LLC will pay the Western Riverside County MSHCP Mitigation Fee for the development of the project or portions thereof to be constructed within the County (Riverside County Ordinance 810.2).

- As the site is located within the Stephens' Kangaroo Rat Mitigation Fee Area, Fertile Soil, LLC will also pay the Stephens' Kangaroo Rat Mitigation Fee (Riverside County Ordinance 663.10).

## **SECTION 6. CERTIFICATION STATEMENT**

Date: March 26, 2018

Revised Date: May 24, 2018

I hereby certify that the statements furnished herein and in the attached exhibits present the data and information required for this MSHCP Consistency Analysis to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

*Paul A. Principe*

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**PRINCIPE AND ASSOCIATES**

**Paul A. Principe**

**Principal**

## CHECKLIST OF VASCULAR PLANT SPECIES

<u>GROUP</u>	<u>FAMILY</u>	<u>Species</u>	<u>COMMON NAME</u>	<u>HABITATS</u>
<b>ANGIOSPERMAE - DICOTS</b>				
	<b>ADOXACEAE – ELDERBERRY FAMILY</b>			
		<i>Sambucus mexicana</i>	MEXICAN ELDERBERRY	RSS, NNG, RS
	<b>AMARANTHACEAE – AMARANTH FAMILY</b>			
		* <i>Amaranthus albus</i>	TUMBLING PIGWEED	NNG
	<b>ANACARDIACEAE – SUMAC FAMILY</b>			
		* <i>Schinus molle</i>	PERUVIAN PEPPER TREE	NNG, RS
	<b>ASCLEPIADACEAE – MILKWEED FAMILY</b>			
		<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	HARTWIG'S MILKVINE	RSS, NNG
	<b>ASTERACEAE – SUNFLOWER FAMILY</b>			
		<i>Ambrosia acanthicarpa</i>	ANNUAL BURWEED	NNG (DD)
		<i>Ambrosia psilostachya</i> var. <i>californica</i>	WESTERN RAGWEED	NNG (DD)
		<i>Artemisia californica</i>	COASTAL SAGEBRUSH	RSS
		<i>Baccharis salicifolia</i>	MULE FAT	RS
		* <i>Centaurea melitensis</i>	TOCALOTE	NNG
		* <i>Cirsium vulgare</i>	BULL THISTLE	NNG
		* <i>Conyza canadensis</i>	COMMON HORSEWEED	NNG
		<i>Deinandra fasciculata</i>	FASCICLED TARWEED	RSS, NNG
		<i>Deinandra paniculata</i>	PANICULATE TARWEED	RSS, NNG
		<i>Ericameria pinifolia</i>	PINE GOLDENBUSH	RSS
		<i>Erigeron foliosus</i> var. <i>foliosus</i>	LEAFY DAISY	RSS
		<i>Filago californica</i>	CALIFORNIA FILAGO	RSS
		<i>Gnaphalium californicum</i>	CALIFORNIA EVERLANSTING	RSS, RS
		<i>Helianthus annuus</i>	WESTERN SUNFLOWER	NNG (DD)
		<i>Heterotheca grandiflora</i>	TELEGRAPH WEED	NNG
		* <i>Lactuca serriola</i>	PRICKLY LETTUCE	NNG (DD)
		<i>Lessingia glandulifera</i> var. <i>glandulifera</i>	VALLEY LESSINGIA	RSS
	<b>ASTERACEAE – SUNFLOWER FAMILY</b>			
		* <i>Senecio vulgaris</i>	COMMON GROUNDSEL	NNG
		* <i>Sonchus asper</i>	PRICKLY SOW-THISTLE	NNG
		<i>Stephanomeria virgata</i> subsp. <i>virgata</i>	VIRGATE WREATH-PLANT	RSS, RS
	<b>BORAGINACEAE – BORAGE FAMILY</b>			
		<i>Amsinckia menziesii</i> var. <i>intermedia</i>	COMMON FIDDLENECK	RSS, NNG
		<i>Heliotropium curassavicum</i> subsp. <i>oculatum</i>	SALT HELIOTROPE	NNG (DD)

<b>FAMILY</b>	<b>Species</b>	<b>COMMON NAME</b>	<b>HABITATS</b>
<b>BRASSICACEAE (CRUCIFERAE) – MUSTARD FAMILY</b>			
	<i>*Brassica geniculata</i>	SHORTPOD MUSTARD	RSS, NNG (DD)
	<i>*Sisymbrium irio</i>	LONDON ROCKET	NNG
<b>CACTACEAE – CACTUS FAMILY</b>			
	<i>Cylindropuntia californica</i>	VALLEY CHOLLA	RSS
	<i>Opuntia xvaseyi</i>	VASEY'S PRICKLY PEAR	RSS
<b>CHENOPODIACIAE – GOOSEFOOT FAMILY</b>			
	<i>*Atriplex semibaccata</i>	AUSTRALIAN SALTBUSH	NNG
	<i>*Chenopodium album</i>	LAMB'S QUARTERS	NNG (DD)
	<i>*Kochia scoparia</i>	SUMMER CYPRESS	NNG
	<i>*Salsola tragus</i>	RUSSIAN THISTLE	RSS, NNG (DD)
<b>CONVOLVULACEAE – MORNING-GLORY FAMILY</b>			
	<i>Calystegia macrostegia</i> subsp. <i>tenuifolia</i>	NARROW-LEAVED MORNING GLORY	NNG
	<i>Cuscuta californica</i> var. <i>californica</i>	CALIFORNIA WITCH'S HAIR	RSS
<b>CUCURBITACEAE – GOURD FAMILY</b>			
	<i>Cucurbita foetidissima</i>	CALABAZILLA	RSS, NNG, RS
<b>EUPHORBIACEAE – SPURGE FAMILY</b>			
	<i>Croton setiger</i>	DOVEWEED	RSS, NNG (DD)
<b>FABACEAE (LEGUMINOSAE) – PEA FAMILY</b>			
	<i>*Lotus purshianus</i>	SPANISH CLOVER	NNG
	<i>Lotus scoparius</i> subsp. <i>scoparius</i>	COASTAL DEERWEED	RSS
	<i>Lupinus</i> sp.	LUPINE	RSS
<b>GERANIACEAE – GERANIUM FAMILY</b>			
	<i>*Erodium botrys</i>	LONG-BEAK FILAREE	NNG
<b>HYDROPHYLLACEAE – WATERLEAF FAMILY</b>			
	<i>Phacelia</i> sp.	PHACELIA	NNG (DD)
<b>LAMIACEAE – MINT FAMILY</b>			
	<i>Salvia columbariae</i>	CHIA	RSS
	<i>Trichostema lanceolatum</i>	VINEGAR WEED	RSS, NNG
<b>MALVACEAE – MALLOW FAMILY</b>			
	<i>*Malva parviflora</i>	CHEESEWEED	NNG
<b>NYCTAGINACEAE – FOUR-O'CLOCK FAMILY</b>			
	<i>Mirabilis californica</i>	CALIFORNIA WISHBONE BUSH	RSS
<b>ONAGRACEAE – EVENING PRIMROSE FAMILY</b>			
	<i>Camissonia strigulosa</i>	STRIGULOSE EVENING PRIMROSE	RSS

<b>FAMILY</b>	<b>Species</b>	<b>COMMON NAME</b>	<b>HABITATS</b>
<b>PLANTAGINACEAE – PLANTAIN FAMILY</b>			
	<i>Plantago erecta</i>	CALIFORNIA PLANTAIN	RSS
<b>POLYGONACEAE – BUCKWHEAT FAMILY</b>			
	<i>Eriogonum fasciculatum</i> subsp. <i>foliolosum</i>	INTERIOR CALIFORNIA BUCKWHEAT	RSS, NNG, RS
	* <i>Rumex crispus</i>	CURLY DOCK	NNG (DD)
<b>PORTULACACEAE – PURSLANE FAMILY</b>			
	* <i>Portulaca oleracea</i>	COMMON PURSLANE	NNG
<b>SALICACEAE – WILLOW FAMILY</b>			
	<i>Populus fremontii</i> subsp. <i>fremontii</i>	WESTERN COTTONWOOD	NNG, RS
	<i>Salix gooddingii</i>	BLACK WILLOW	NNG, RS
	<i>Salix laevigata</i>	RED WILLOW	NNG, RS
	<i>Salix lasiolepis</i> var. <i>lasiolepis</i>	ARROYO WILLOW	NNG, RS
<b>SCROPHULARIACEAE – FIGWORT FAMILY</b>			
	<i>Keckiella antirrhinoides</i> subsp. <i>antirrhinoides</i>	YELLOW BUSH-PENSTEMON	RSS
<b>SOLANACEAE – NIGHTSHADE FAMILY</b>			
	<i>Datura wrightii</i>	JIMSONWEED	NNG (DD), RS
	* <i>Nicotiana glauca</i>	TREE TOBACCO	RSS, NNG (DD), RS
<b>TAMARICACEAE – TAMARISK FAMILY</b>			
	* <i>Tamarix ramosissima</i>	MEDITERRANEAN TAMARISK	NNG, RS
<b>URTICACEAE – NETTLE FAMILY</b>			
	* <i>Urtica urens</i>	DWARF NETTLE	NNG (DD)
<b>VITACEAE – GRAPE FAMILY</b>			
	* <i>Vitis vinifera</i>	WINE GRAPE	NNG
<b>ZYGOPHYLLACEAE – CALTROP FAMILY</b>			
	* <i>Tribulus terrestris</i>	PUNCTURE VINE	NNG

<u>GROUP</u>	<u>FAMILY</u>	<u>Species</u>	<u>COMMON NAME</u>	<u>HABITATS</u>
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## MONOCOTYLEDONES - MONOCOTS

### AGAVACEAE – AGAVE FAMILY

*Yucca schidigera* MOJAVE YUCCA RSS

### POACEAE – GRASS FAMILY

\**Avena barbata* SLENDER WILD OAT SS, NNG  
 \**Bromus diandrus* COMMON RIPGUT GRASS RSS, NNG, RS  
 \**Bromus hordeaceus* SOFT CHESS NNG  
 \**Cynodon dactylon* BERMUDA GRASS NNG  
 \**Hordeum murinum* subsp. *leporinum* FOXTAIL BARLEY RSS, NNG  
 \**Poa annua* ANNUAL BLUEGRASS RSS, NNG  
 \**Vulpia myuros* var. *myuros* RATTAILE FESCUE RSS, NNG

### THEMIDACEAE – BRODIAEA FAMILY

*Dichelostemma pulchellum* var. *pulchellum* BLUE-DICKS RSS

## HABITATS:

RSS = RIVERSIDEAN SAGE SCRUB

NNG = NON-NATIVE GRASSLANDS

NNG (DD) = NON-NATIVE GRASSLANDS IN THE DRAINAGE DITCHES ALONG DE PORTOLA AND MONTE DE ORO ROADS

RS = RIPARIAN SCRUB

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\*Denotes non-native species throughout Checklist  
 Nomenclature after Roberts, Jr., Fred M., Scott D. White, Andrew C. Sanders, David E. Bramlet, and Steve Boyd. 2004.





VIEW OF THE NORTHEAST CORNER OF THE SITE.



VIEW OF THE NORTHWEST CORNER OF THE SITE.

SITE PHOTOGRAPH 1  
PRINCIPE AND ASSOCIATES



VIEW ALONG THE SITE'S SOUTH PROPERTY LINE



VIEW FROM SOUTHWEST TO NORTHEAST CORNERS

SITE PHOTOGRAPH 2  
PRINCIPE AND ASSOCIATES



VIEW ALONG THE SITE'S EAST PROPERTY LINE



VIEW ALONG THE SITE'S WEST PROPERTY LINE

SITE PHOTOGRAPH 3  
PRINCIPE AND ASSOCIATES



LONG VALLEY WASH IS NOT INCISED IN THE EASTERN PORTION OF THE SITE



ITS CHANNEL IS INCISED IN THE CENTRAL PORTION OF THE SITE



VIEW OF RIPARIAN SCRUB IN WESTERN PORTION OF THE SITE



VIEW OF WESTERN COTTONWOOD IN CENTER OF THE SITE WITH OLD NEST

SITE PHOTOGRAPH 5  
PRINCIPE AND ASSOCIATES



VIEW OF THE PRIMARY ACCESS ONTO THE SITE THROUGH THE VINEYARD



VIEW OF THE GULLY PRESENT IN THE NORTHEAST PORTION OF THE SITE

SITE PHOTOGRAPH 6  
PRINCIPE AND ASSOCIATES

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Search: Glenoaks Hills Community, Temecula, California

Imagery Dates: 10/1/1995 through 10/21/2016

Image Sources: U.S. Geological Survey, NASA, © 2016 DigitalGlobe, and USDA. Farm Service Agency

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# Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

APN	Cell	Cell Group	Acres	Area Plan	Sub Unit
941180032	Not A Part	Independent	42.49	Southwest Area	Not a Part

## HABITAT ASSESSMENTS

Habitat assessment shall be required and should address at a minimum potential habitat for the following species:

APN	Amphibia Species	Burrowing Owl	Criteria Area Species	Mammalian Species	Narrow Endemic Plant Species	Special Linkage Area
941180032	NO	YES	NO	NO	NO	NO

### Burrowing Owl

Burrowing owl.

If potential habitat for these species is determined to be located on the property, focused surveys may be required during the appropriate season.

## Background

The final MSHCP was approved by the County Board of Supervisors on June 17, 2003. The federal and state permits were issued on June 22, 2004 and implementation of the MSHCP began on June 23, 2004.

For more information concerning the MSHCP, contact your local city or the County of Riverside for the unincorporated areas. Additionally, the Western Riverside County Regional Conservation Authority (RCA), which oversees all the cities and County implementation of the MSHCP, can be reached at:

Western Riverside County Regional Conservation Authority  
 3403 10th Street, Suite 320  
 Riverside, CA 92501

Phone: 951-955-9700  
 Fax: 951-955-8873

[www.wrc-rca.org](http://www.wrc-rca.org)

## BIOLOGICAL REPORT SUMMARY SHEET

(Submit two copies to the County)

Applicant Name: Long Jiang, FERTILE SOIL, LLC  
 Assessor's Parcel Number (APN): 941-180-032  
 APN cont. :  
 Site Location: Section: 29 + 30 Township: 7 Range: 1  
 Site Address: Northeast corner of De Portola and Monte De Oro Roads in Riverside County, California  
 Related Case Number(s): Plot Plan T18003 PDB Number:

CHECK SPECIES SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE OF CONCERN	(Circle Yes, No or N/A regarding species findings on the referenced site)		
		Yes	No	N/A
	Arroyo Southwestern Toad	Yes	No	N/A
✓	Blue-line Stream(s)	Yes	No	N/A
	Coachella Valley Fringed-Toed Lizard	Yes	No	N/A
✓	Coastal California Gnatcatcher	Yes	No	N/A
✓	Coastal Sage Scrub	Yes	No	N/A
	Delhi Sands Flower-Loving Fly	Yes	No	N/A
	Desert Pupfish	Yes	No	N/A
	Desert Slender Salamander	Yes	No	N/A
	Desert Tortoise	Yes	No	N/A
	Flat-Tailed Horned Lizard	Yes	No	N/A
	Least Bell's Vireo	Yes	No	N/A
✓	Oak Woodlands	Yes	No	N/A
	Quino Checkerspot Butterfly	Yes	No	N/A
	Riverside Fairy Shrimp	Yes	No	N/A
	Santa Ana River Woollystar	Yes	No	N/A
	San Bernardino Kangaroo Rat	Yes	No	N/A
	Slender Horned Spineflower	Yes	No	N/A
✓	Stephen's Kangaroo Rat	Yes	No	N/A
✓	Vernal Pools	Yes	No	N/A
✓	Wetlands	Yes	No	N/A

CHECK SPECIES SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE OF CONCERN	(Circle Yes, No or N/A regarding species findings on the referenced site)		
✓	Other Burrowing Owl	Yes	<input checked="" type="radio"/> No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A
	Other	Yes	No	N/A

Species of concern shall be any unique, rare, endangered, or threatened species. It shall include species used to delineate wetlands and riparian corridors. It shall also include any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened or candidate species by either State, or Federal regulations, or for Riverside County as listed by the California Department of Fish and Game Natural Diversity Data Base (NDDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report.

*Paul A. Principe*  
 Signature and Company Name

PRINCIPE AND ASSOCIATES FEB. 16, 2018

Report Date

10(a) Permit Number (if applicable)

Permit Expiration Date

*County Use Only*

Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
 PD-B# \_\_\_\_\_

**LEVEL OF SIGNIFICANCE CHECKLIST**  
 For Biological Resources  
 (Submit Two Copies)

Case Number: \_\_\_\_\_ Lot/Parcel No. \_\_\_\_\_ EA Number \_\_\_\_\_

**Wildlife & Vegetation**

Potentially Significant Impact		Less than Significant with Mitigation Incorporated		Less than Significant Impact		No Impact
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(Check the level of impact the applies to the following questions)

- a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?  
                                   9                                  9                                  9                                  9
- b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?  
                                   9                                  9                                  9                                  9
- c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?  
                                   9                                  9                                  9                                  9
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?  
                                   9                                  9                                  9                                  9
- e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?  
                                   9                                  9                                  9                                  9
- f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?  
                                   9                                  9                                  9                                  9
- g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  
                                   9                                  9                                  9                                  9

Source: CGP Fig. VI.36-VI.40

Findings of Fact:

Proposed Mitigation:

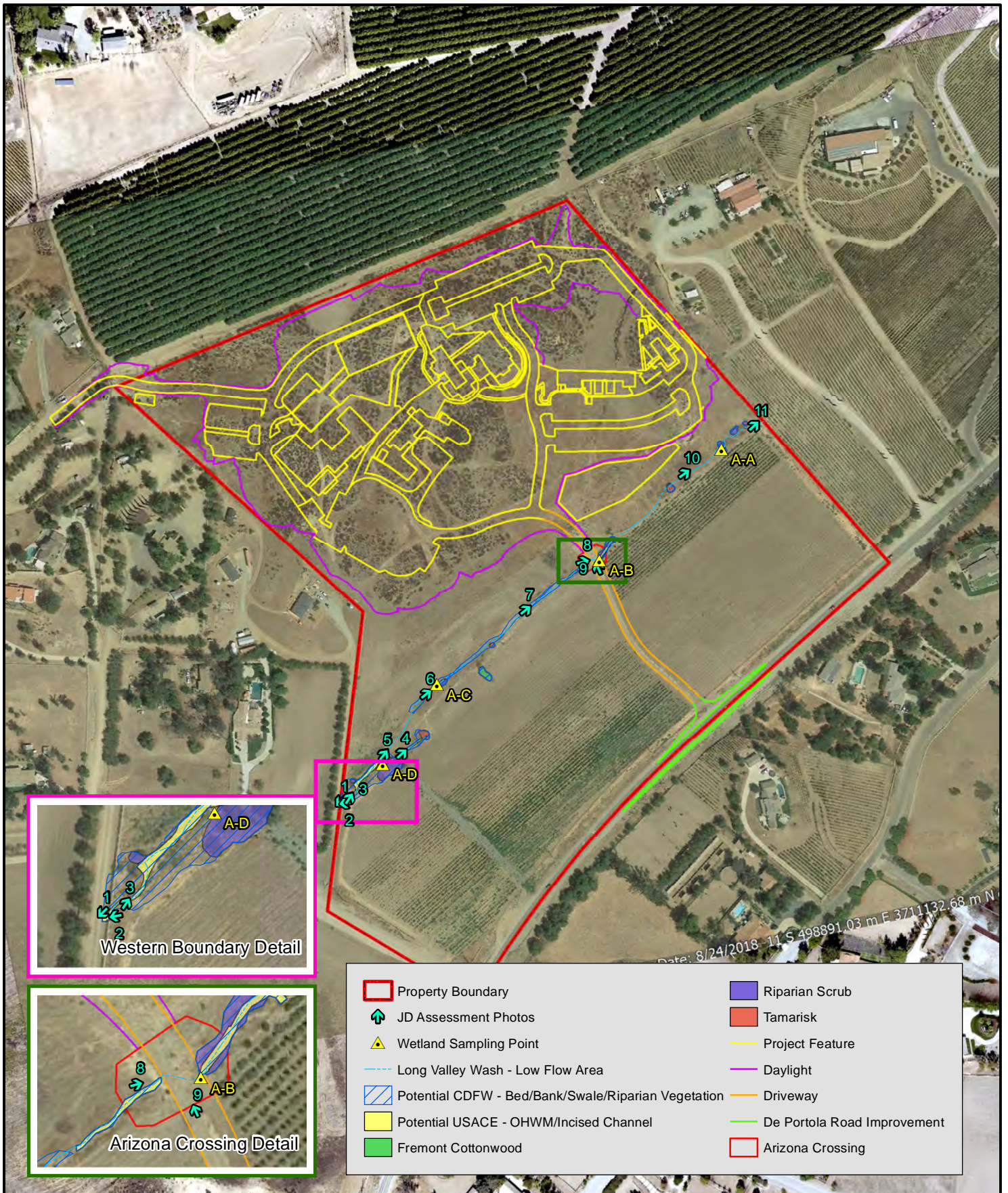
Monitoring Recommended:

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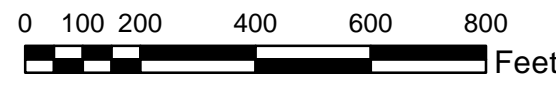
# APPENDIX C

Preliminary Jurisdictional Assessment Photographs

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**Appendix C**  
**Photographic Key Map**



DATE: April 3, 2019  
 COORDINATE SYSTEM: NAD 1983 State Plane California VI FIPS 0406 (US Feet)  
 SOURCE: Ventura Engineering Inland, Inc., Google Earth August 24, 2018  
 Image (Georeferenced), Riverside County GIS, SBS



**PHOTOGRAPH 1:** Flow offsite through dirt driveway.



**PHOTOGRAPH 2:** Flow concentrating, then exiting the Site beneath a vinyl fence lined with wire.



**PHOTOGRAPH 3:** Strong evidence of ordinary flow in the western portion of the Site.



**PHOTOGRAPH 4:** An OHWM coming from the edge of the vineyard. The OHWM began near the salt cedar and drought stressed mulefat pictured in the background.





**PHOTOGRAPH 5:** Flows from a recent storm appeared to collect at this earthen bank coming off the vineyard from the right side of the photo. Weak evidence of flow was present upstream.



**PHOTOGRAPH 6:** Mulefat pictured in the “upland swale” area. Wetland sampling point A-C was assessed near the mulefat. Two cottonwoods were in the vineyard area outside of the estimated low flow area of the wash.



**PHOTOGRAPH 7:** Sandy substrates somewhat exposed in this area; however, evidence of recent flow was absent even subsequent to a storm that produced 6.04 inches of rain in four days. The cottonwood pictured was dead.



**PHOTOGRAPH 8:** A remnant channel is depicted in the foreground near the crossing. Blue elderberry is pictured in the background on the east side of the dirt road.



**PHOTOGRAPH 9:** No evidence of concentrated flow over the crossing was present.



**PHOTOGRAPH 10:** Dense non-native grassland was dominant throughout.



**PHOTOGRAPH 11:** The Property fence-line was bent and damaged in the upstream end indicating that strong surface sheetflow with debris (i.e., some Russian thistle was present on east side of fence) encountered this area. The fence-line likely dissipates flows since evidence of concentrated flow downstream of the fence was absent.

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# APPENDIX D

Wetland Data Sheets

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## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Monarch Winery City/County: Unincorporated/Riverside County Sampling Date: 3-5-2019  
 Applicant/Owner: Fertile Soil, LLC State: CA Sampling Point: A-A  
 Investigator(s): T. Searl and M. Searl Section, Township, Range: Section 29, Township 7S, Range 1W  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2-8  
 Subregion (LRR): C - Mediterranean California Lat: 33.540570 Long: -117.010344 Datum: NAD83  
 Soil Map Unit Name: HcC - Hanford coarse sandy loam, 2 to 8 percent slopes NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

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

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>No Trees Present</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>100</u> x 4 = <u>400</u> UPL species <u>55</u> x 5 = <u>275</u> Column Totals: <u>175</u> (A) <u>735</u> (B) Prevalence Index = B/A = <u>4.2</u>
Sapling/Shrub Stratum (Plot size: <u>10 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Baccharis salicifolia (mulefat)</u>	<u>20</u>		<u>FAC</u>	
2. _____				
3. _____				
4. _____				
<u>20</u> = Total Cover				
Herb Stratum (Plot size: <u>5 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Hordeum murinum (wall barley)</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Bromus diandrus (ripgut grass)</u>	<u>50</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Bromus madritensis ssp. rubens (foxtail grass)</u>	<u>5</u>		<u>UPL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>155</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>No woody vines present</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>				

**Hydrophytic Vegetation Indicators:**

Dominance Test is >50%

Prevalence Index is ≤3.0<sup>1</sup>

Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

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

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
 Riverine system with few scattered mulefat present. Dominant vegetation community throughout was non-native grassland.

**SOIL**

Sampling Point: A-A

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 12	10YR 4/3						Sandy loam	

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

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

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

Type: No Restrictive Layer present  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

**Field Observations:**

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

Wetland Hydrology Present? Yes  No

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

Review of aerial photography indicates weak evidence of concentrated flow in this area

Remarks:

No distinct evidence of concentrated flow in this area. OHWM is absent.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Monarch Winery City/County: Unincorporated/Riverside County Sampling Date: 3-5-2019  
 Applicant/Owner: Fertile Soil, LLC State: CA Sampling Point: A-B  
 Investigator(s): T. Searl and M. Searl Section, Township, Range: Section 29, Township 7S, Range 1W  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2-8  
 Subregion (LRR): C - Mediterranean California Lat: 33.539783 Long: -117.011363 Datum: NAD83  
 Soil Map Unit Name: HcC - Hanford coarse sandy loam, 2 to 8 percent slopes NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: An OHWM was present at the sampling point but no other indicators of a wetland present. An upland drainage area.			

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>No Trees Present</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Sambucus nigra (blue elderberry)</u>	<u>15</u>		<u>FACU</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species <u>105</u> x 4 = <u>420</u>
	<u>15</u>	= Total Cover		
				UPL species <u>30</u> x 5 = <u>150</u>
				Column Totals: <u>135</u> (A) <u>570</u> (B)
				Prevalence Index = B/A = <u>4.22</u>
Herb Stratum (Plot size: <u>5 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Hordeum murinum (wall barley)</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Bromus diandrus (ripgut grass)</u>	<u>25</u>		<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Amsinckia intermedia (fiddleneck)</u>	<u>5</u>		<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
	<u>120</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. <u>No woody vines present</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust <u>0</u>				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks:  
 Dominant vegetation community throughout was non-native grassland. Existing dirt road accounted for bare ground.



**SOIL**

Sampling Point: A-B

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 14	10YR 4/4						Sand	

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

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

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

Type: No Restrictive Layer present  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

**Field Observations:**

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

Wetland Hydrology Present?    Yes     No

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

**Review of aerial photography indicates weak evidence of concentrated flow in this area**

Remarks:

An OHWM was present at the location of the sampling point. It was approximately 1-foot wide then dissipated to sheetflow downstream at dirt road. The incised channel did not appear to be currently hydrologically active.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Monarch Winery City/County: Unincorporated/Riverside County Sampling Date: 3-5-2019  
 Applicant/Owner: Fertile Soil, LLC State: CA Sampling Point: A-C  
 Investigator(s): T. Searl and M. Searl Section, Township, Range: Section 29, Township 7S, Range 1W  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2-8  
 Subregion (LRR): C - Mediterranean California Lat: 33.538896 Long: -117.012725 Datum: NAD83  
 Soil Map Unit Name: HcC - Hanford coarse sandy loam, 2 to 8 percent slopes NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: No OHWM present at sampling point. Only an upland swale with no evidence of concentrated flow. Upland swale appeared to be human-created and has likely been in place for a period of years.			

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>No Trees Present</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 feet r</u> )				<b>Prevalence Index worksheet:</b>
1. <u>Baccharis salicifolia (mulefat)</u>	<u>15</u>		<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species <u>15</u> x 3 = <u>45</u>
5. _____				FACU species <u>75</u> x 4 = <u>300</u>
	<u>15</u>	= Total Cover		
				UPL species <u>35</u> x 5 = <u>175</u>
				Column Totals: <u>125</u> (A) <u>520</u> (B)
				Prevalence Index = B/A = <u>4.16</u>
Herb Stratum (Plot size: <u>5 feet r</u> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Erodium botrys (long-beak filaree)</u>	<u>75</u>	<u>Y</u>	<u>FACU</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Bromus madritensis ssp. rubens (foxtail grass)</u>	<u>20</u>		<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Bromus diandrus (ripgut grass)</u>	<u>10</u>		<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Lupinus bicolor (miniature lupine)</u>	<u>5</u>		<u>UPL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
	<u>110</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 feet r</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>No woody vines present</u>				
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u>		Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks:  
 Dense non-native grassland dominant throughout the upland swale.

**SOIL**

Sampling Point: A-C

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 2	10YR 5/3						Loam	
3-10	10YR 3/2						Sandy Loam	

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

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

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

Type: No Restrictive Layer present  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

**Field Observations:**

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

Wetland Hydrology Present?    Yes     No

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

**Review of aerial photography indicates weak evidence of concentrated flow in this area**

Remarks:

Upland swale with no evidence of concentrated flow at sampling point.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Monarch Winery City/County: Unincorporated/Riverside County Sampling Date: 3-5-2019  
 Applicant/Owner: Fertile Soil, LLC State: CA Sampling Point: A-D  
 Investigator(s): T. Searl and M. Searl Section, Township, Range: Section 29, Township 7S, Range 1W  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2-8  
 Subregion (LRR): C - Mediterranean California Lat: 33.538333 Long: -117.013176 Datum: NAD83  
 Soil Map Unit Name: HcC - Hanford coarse sandy loam, 2 to 8 percent slopes NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: Though willow and mulefat both present at this location, both were limited to only a few scattered plants (i.e., 2 willows, 3 mulefat).			

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix laevigata (polished willow)</u>	20	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____				
	20	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 feet r</u> )				Prevalence Index worksheet:
1. <u>Baccharis salicifolia (mulefat)</u>	10		FAC	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>20</u> x 2 = <u>40</u>
4. _____				FAC species <u>15</u> x 3 = <u>45</u>
5. _____				FACU species _____ x 4 = _____
	10	= Total Cover		
				UPL species <u>75</u> x 5 = <u>375</u>
				Column Totals: <u>110</u> (A) <u>420</u> (B)
				Prevalence Index = B/A = <u>3.82</u>
Herb Stratum (Plot size: <u>5 feet r</u> )				Hydrophytic Vegetation Indicators:
1. <u>Bromus diandrus (ripgut grass)</u>	70	Y	UPL	<input type="checkbox"/> Dominance Test is >50%
2. <u>Xanthium strumarium (rough cocklebur)</u>	5		FAC	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Hirschfeldia incana (shortpod mustard)</u>	5		UPL	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
	80	= Total Cover		
Woody Vine Stratum (Plot size: <u>30 feet r</u> )				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>No woody vines present</u>				
2. _____				
	0	= Total Cover		
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: Strong evidence of concentrated flow in this area. Majority of flow appears to originate from sheetflow off the vineyard area. Two willows present. Sediment deposits accounted for bare ground.				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**SOIL**

Sampling Point: A-D

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

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

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

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

- |  |   |
|--|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

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

**Restrictive Layer (if present):**

Type: No Restrictive Layer present  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Salt Crust (B11)                              |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Biotic Crust (B12)                            |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                   |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)      | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine)         | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)    |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7)                        |
| <input type="checkbox"/> Water-Stained Leaves (B9)                 | <input type="checkbox"/> Other (Explain in Remarks)                    |

Secondary Indicators (2 or more required)

- Water Marks (B1) (Riverine)
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- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

**Field Observations:**

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

Wetland Hydrology Present? Yes  No

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

Review of aerial photography indicates weak evidence of concentrated flow in this area

Remarks:

Only area on the property with strong evidence of flow.