

**COMBINED JURISDICTIONAL AND AQUATIC RESOURCES DELINEATION
FOR APN 470-070-043 (HAN190029), RIVERSIDE COUNTY, CALIFORNIA**

±9.2-Acre Parcel, ±9.2 Acres Surveyed

APN 470-070-043, HAN190029, St. Johns Canyon Area, Section 13, Township 6 South,
Range 1 West, USGS Hemet 7.5' Topographic Quadrangle Map
San Bernardino Base and Meridian

Prepared For:

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Report Summary:

Jurisdictional drainage features are present on the parcel and are planned for avoidance. The owner plans to develop ±2.42 acres and to place ±6.78 acres into conservation. Nearly all of the jurisdictional drainage features are within the 6.7 acres planned for conservation. Aquatic and Streambed Resources present on the parcel include 1,839 lf (0.12 acre) of non-wetland "waters of the U. S." (NWW) and 52,535 sf (1.20 acre) of combined California Streambed and California Wetland. The proponent has redesigned the project to allow for 100% avoidance and conservation of the majority of the drainages within the 6.7 acres. Based on the level of conservation this project alternative is the LEDPA and offers long-term conservation value to Riverside County.

Delineation Conducted By: Leslie Nay Irish & Rachel M. Irish, M.A., Ph.D.

Delineation Conducted On: March 27, 2020

Report Date: April 22, 2020

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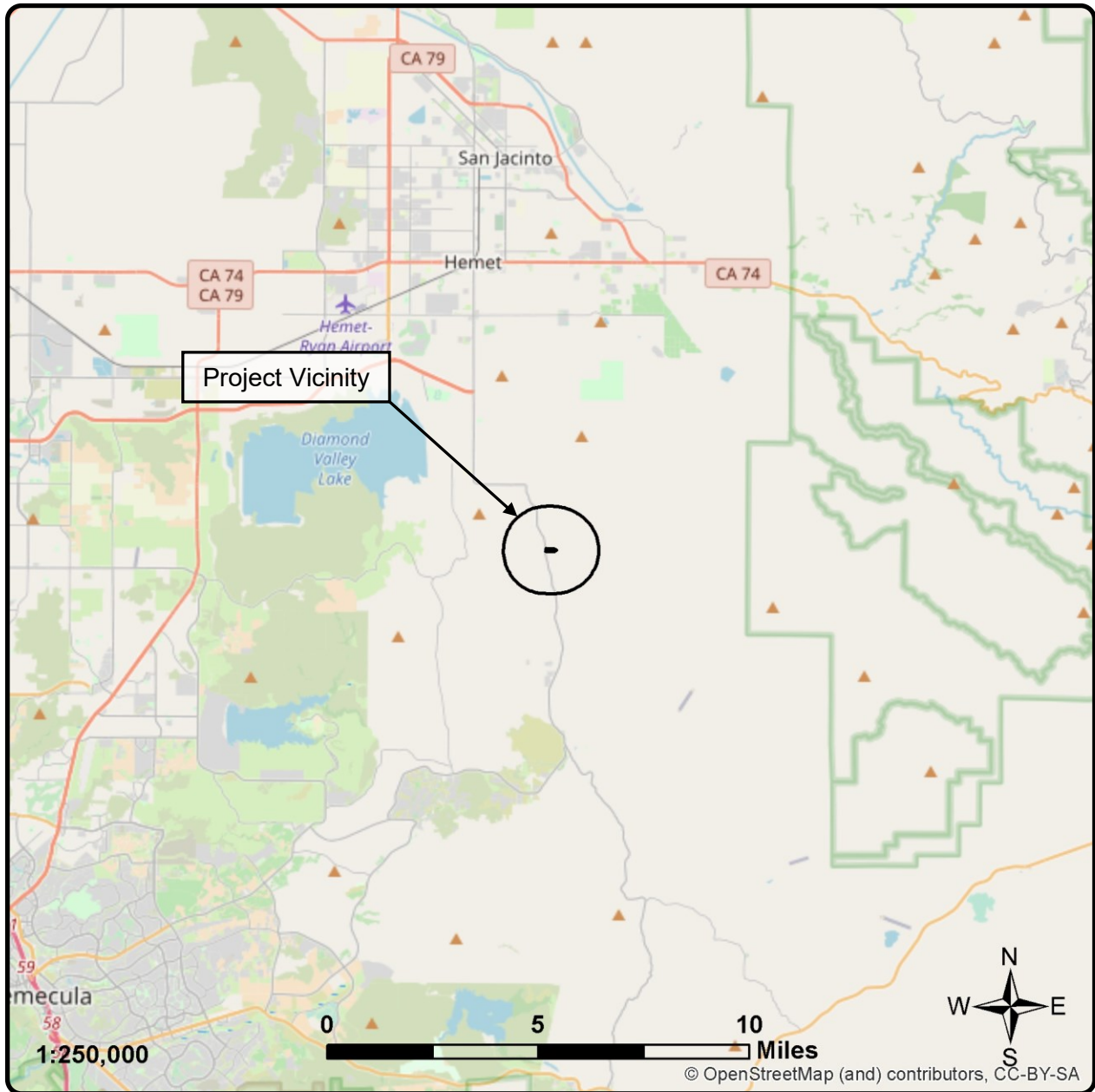
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SECTION I: COMMON SITE FIGURES



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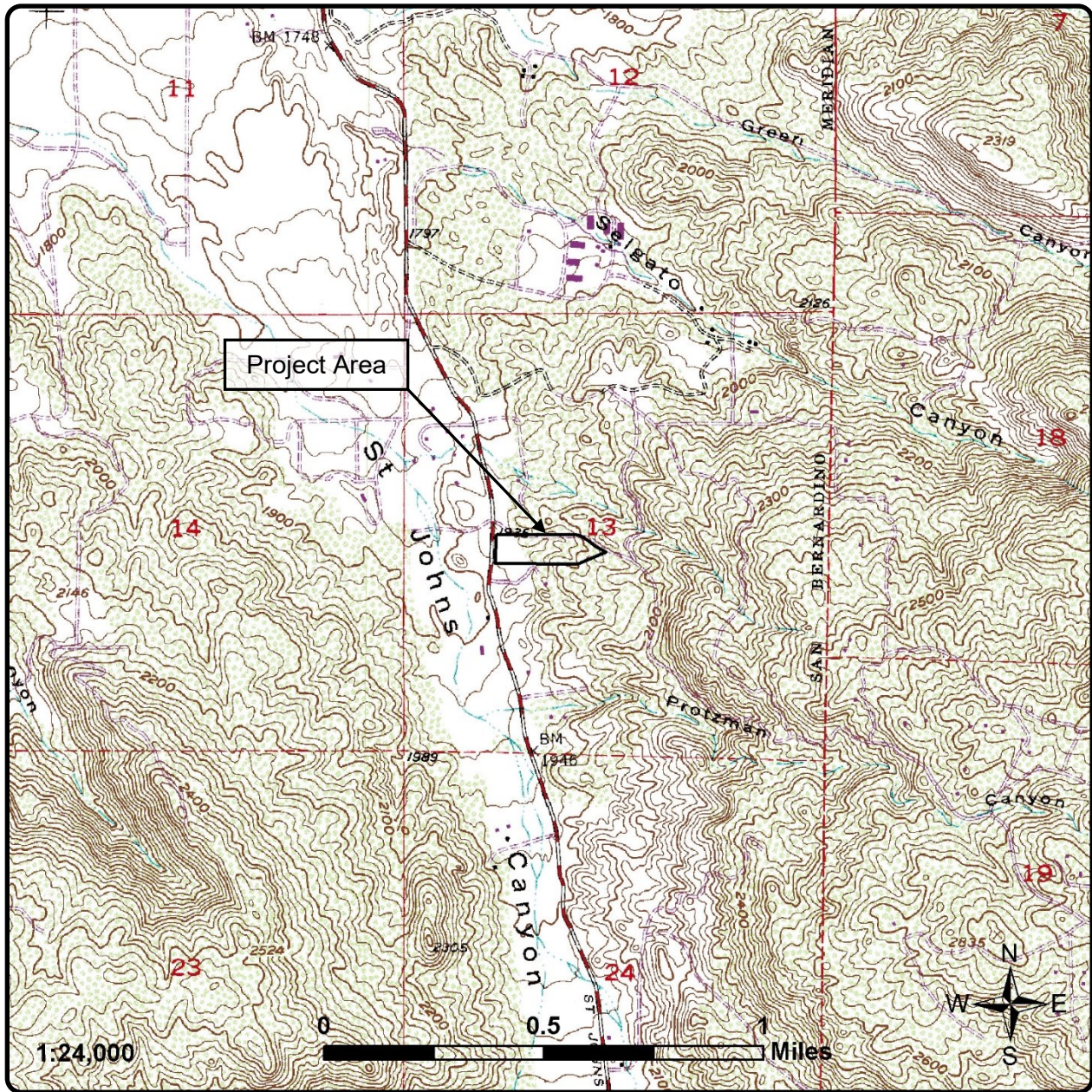
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Figure 1

Project Vicinity Map

*Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California*



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Figure 2
Project Location Map
(USGS Hemet [1979] quadrangle,
Section 13, Township 6 South, Range 1 West)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California



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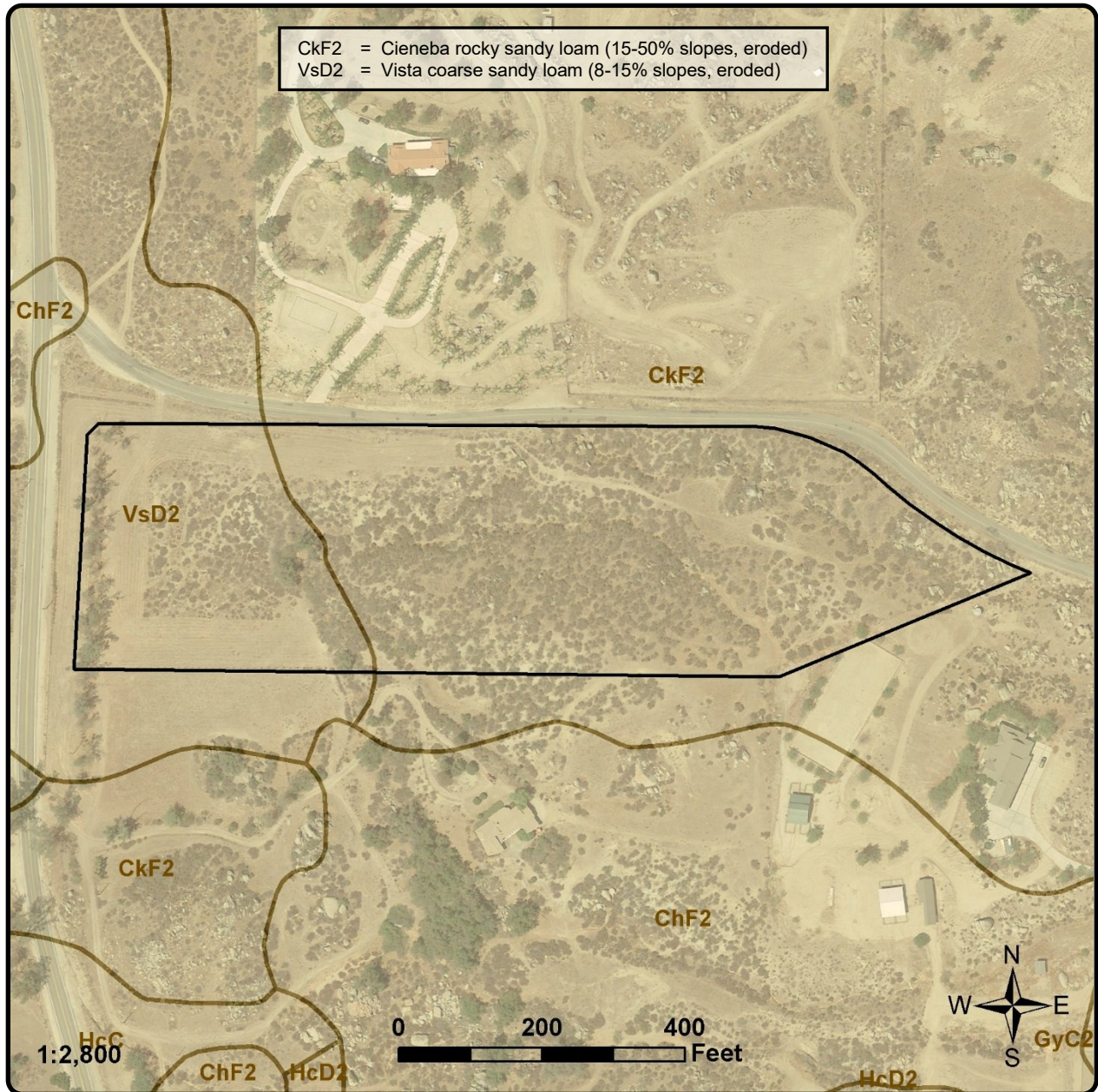
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Figure 3

Aerial Photograph
(Aerial obtained from Google Earth, August 2018)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California



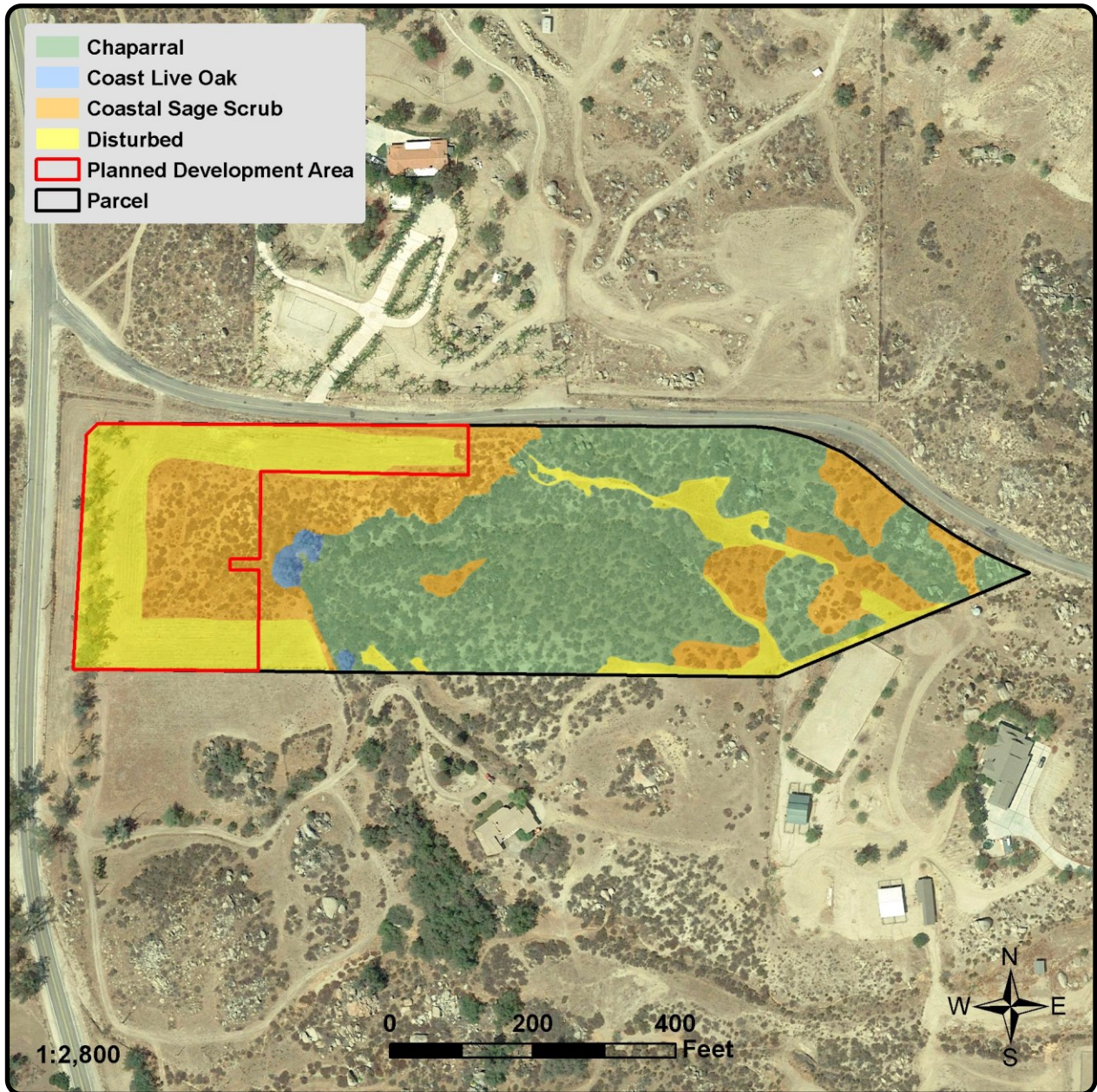
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April 2020

Figure 4
Soils Map
(Aerial obtained from Google Earth, August 2018,
USDA Nat. Res. Cons. Serv. SSURGO Data)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California



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April 2020

Figure 5

Habitat Map
(Aerial obtained from Google Earth, August 2018)

*Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California*

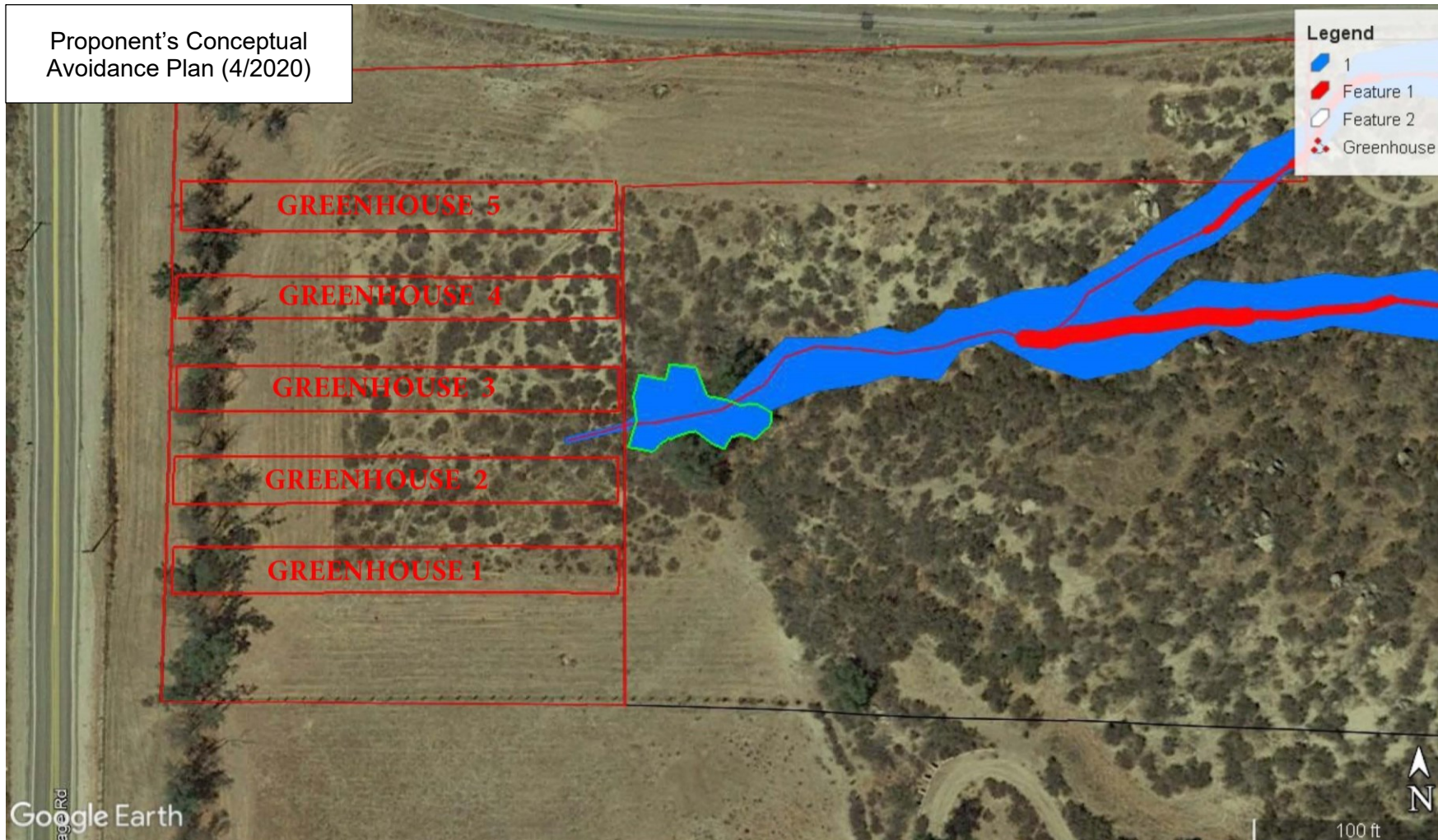
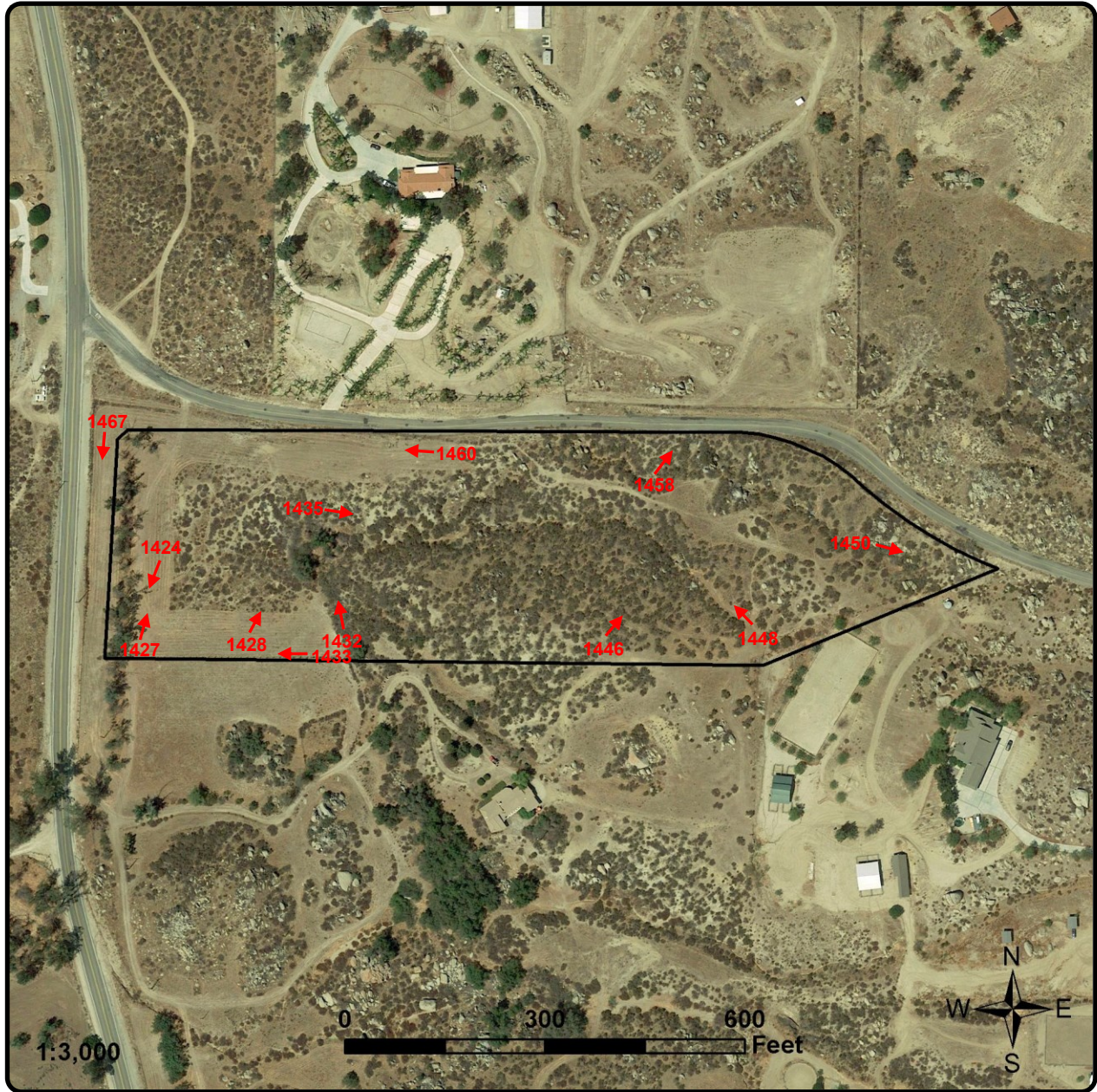


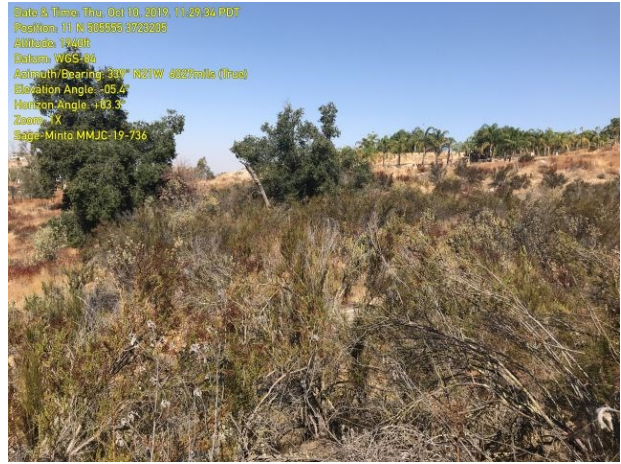
Figure 6. Development Plan

Site Photographs





(1424)



(1432)



(1427)



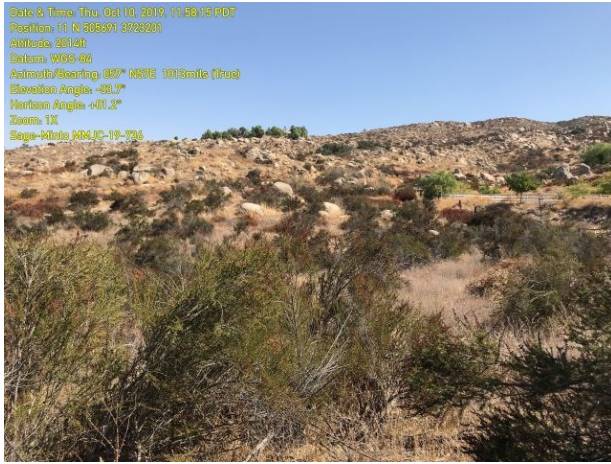
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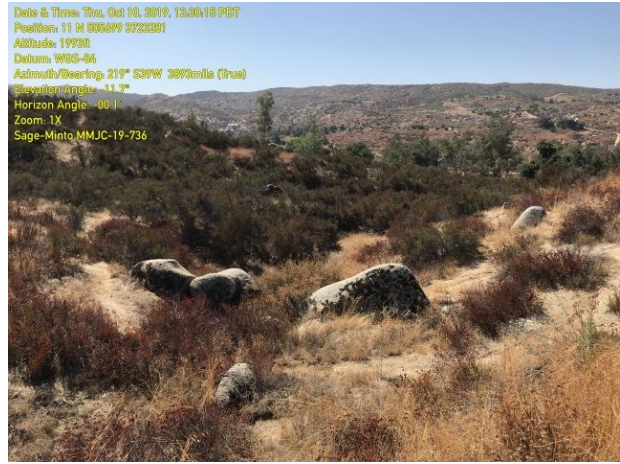
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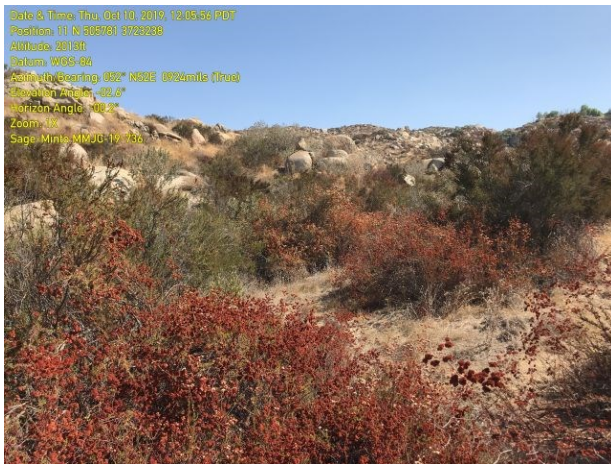
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(1460)

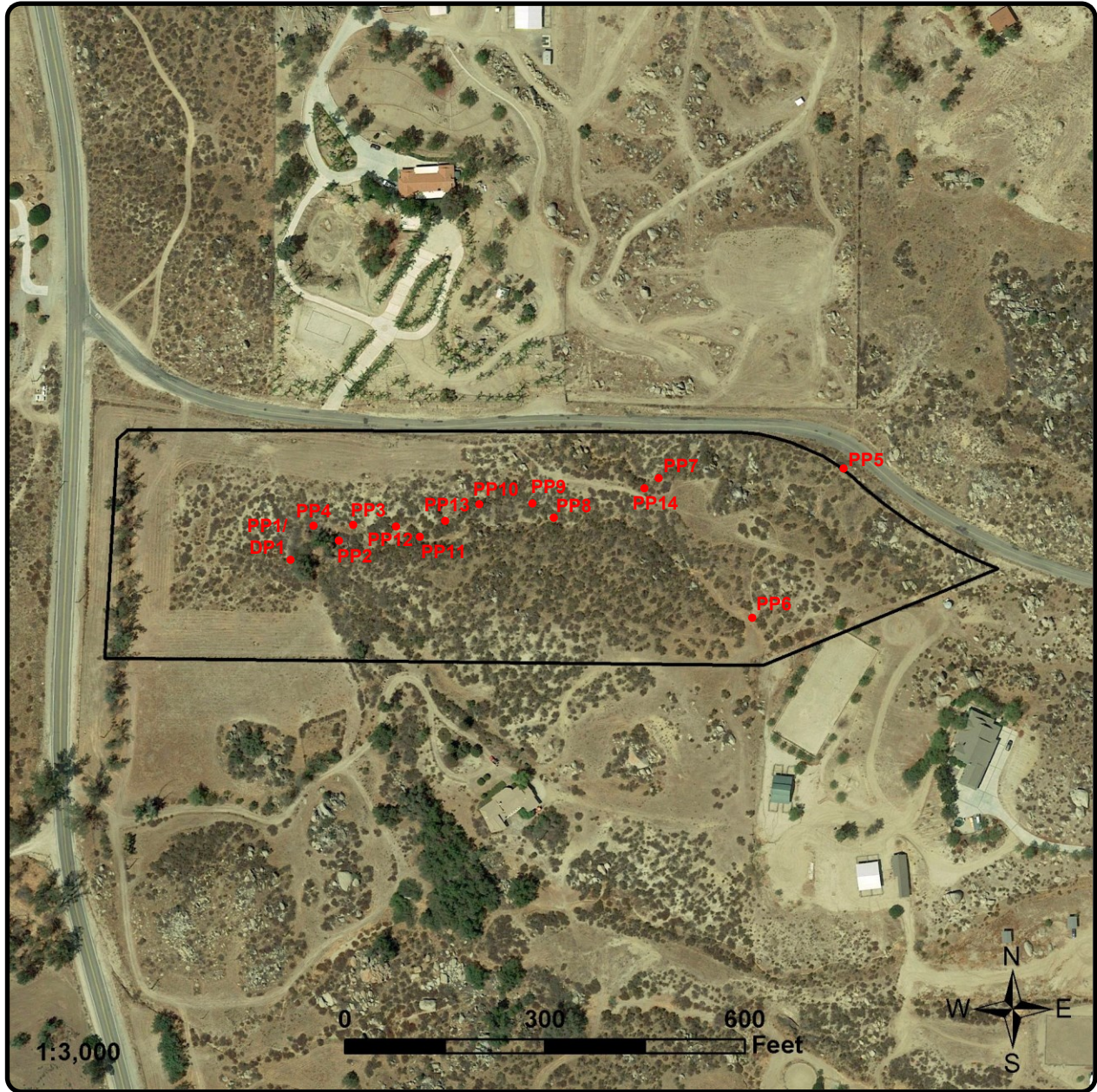


(1450)



(1467)

Drainage Photographs



2:35:47 PM
 Friday, March 27
 Hemet, CA PDT
 GMT -07:00

☉ 6:41 AM ☾ 7:06 PM
 12h 24m
 2m 5sΔ

2135Z
 33° 38' 57.2" N, 116° 56' 27.4" W
 1,938 ft. AMSL
 Accuracy (+/-ft) H 16, V 39

60°F / 16°C
 Wind: SSW 9 mph
 Visibility: 10 Miles
 Pressure: 30.06 in. Hg ...
 Dew Point: 36°F / 2°C
 Humidity: 39.9%
 Feels Like: 61°F / 16°C

Updated 3/27/20, 2:32 PM



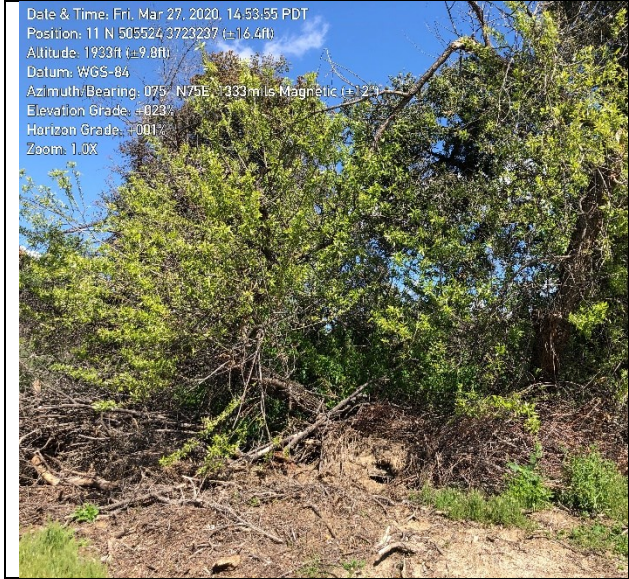
Start time /temp

PP 1 Apparent pipe near wetland/riparian area



DP #1 Test Pit

DP #1 Test Pit



DP #1 View looking northeast.







DP #1 View looking northeast.



PP 1



PP 1

<p>Date & Time: Fri, Mar 27, 2020, 15:22:42 PDT Position: 11 N 505547 3723250 (+16.4ft) Altitude: 1954ft (+13.1ft) Datum: WGS-84 Azimuth/Bearing: 195° S81E 1700mils Magnetic (+11°) Elevation Grade: +008% Horizon Grade: +024% Zoom: 1.0X</p> 	<p>Date & Time: Fri, Mar 27, 2020, 15:23:24 PDT Position: 11 N 505593 3723248 (+32.0ft) Altitude: 1962ft (+105.0ft) Datum: WGS-84 Azimuth/Bearing: 105° S75E 1867mils Magnetic (+11°) Elevation Grade: +032% Horizon Grade: +004% Zoom: 1.0X</p> 
<p>PP 3 looking east (Drainage 1)</p>	<p>PP4 looking east (Drainage 1)</p>
<p>Date & Time: Fri, Mar 27, 2020, 16:57:40 PDT Position: 11 N 505767 3723280 (+32.0ft) Altitude: 2000ft (+52.5ft) Datum: WGS-84 Azimuth/Bearing: 295° N65W 5266mils Magnetic (+14°) Elevation Grade: +027% Horizon Grade: +003% Zoom: 1.0X</p> 	<p>Date & Time: Fri, Mar 27, 2020, 16:01:12 PDT Position: 11 N 505736 3723209 (+16.4ft) Altitude: 2008ft (+9.8ft) Datum: WGS-84 Azimuth/Bearing: 146° S34E 2596mils Magnetic (+12°) Elevation Grade: +005% Horizon Grade: +001% Zoom: 1.0X</p> 
<p>PP 5 looking west (Drainage 1a)</p>	<p>PP 6 looking southwest (top of D 1a)</p>



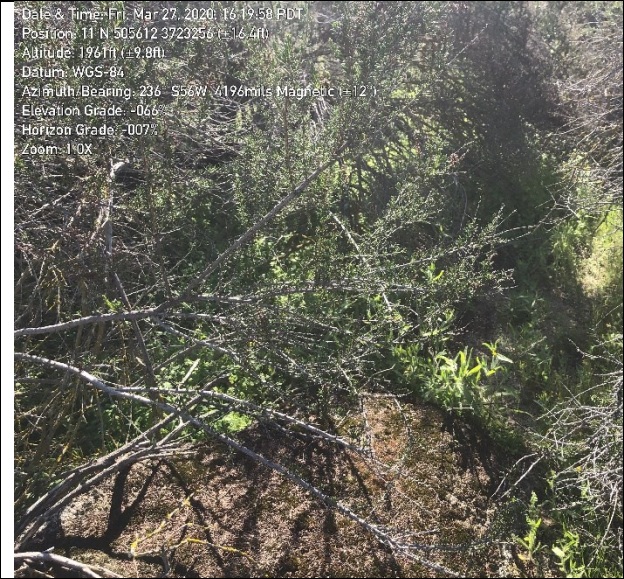
PP 7 looking west (D 1a)



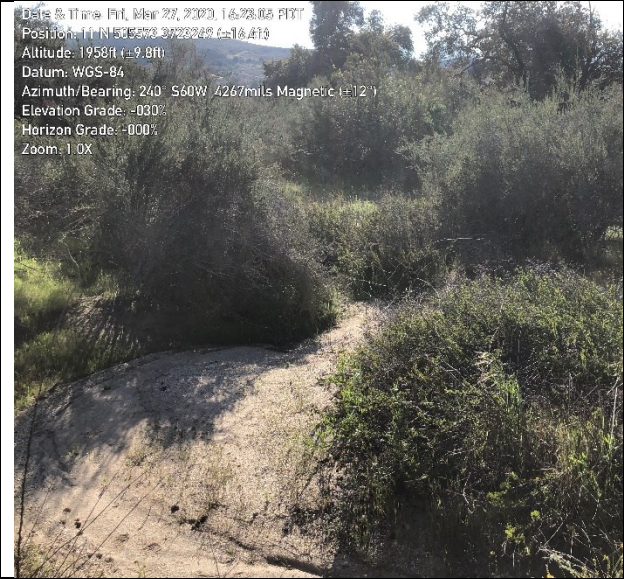
PP 8



PP 9



PP 10



PP 11 Merge Point of D1 and D1a

PP 12



PP12

PP 13

 <p>15:44 PM 3/27/20 Lat: 33.649238° N Long: 117.111111° W</p>	
PP 14	

SECTION II: AQUATIC RESOURCES DELINEATION REPORT

This Section of the Report is intended as a standalone section for submittal to the Los Angeles District of the USACE during regulatory permit processing. Aquatic Resources Delineation Reports are required after March 20, 2017.

1. Cover letter and forms

Detach this section and place it under cover to the ACOE along with the required application materials.

2. Contact information

Applicant

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Property Owner

same

Preparer of Jurisdictional Delineation

Leslie Irish
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3. Signed Statement Allowing Access

I, Judy Bailey-Savage by my signature below authorize the U. S. Army Corps of Engineers to access the proposed project for the purpose of verifying the information in this report and in the materials submitted for the purposes of obtaining a 404 permit for fill of Waters of the U. S.

Signed: _____ Dated: _____
(signature required for submittal)

4. Directions, Address, and Geographic Coordinates

Access to the site is via a partially hidden driveway between a barbwire fence and a small hill/steep slope located immediately following the first curve along Minto Way (approximately 160 feet). The project is located just southeast of the intersection of Sage Road and Minto Way in the Hemet area of Riverside County, California.

From Los Angeles take I-10 east toward San Bernardino, take CA-71 toward Corona, merge onto the CA-60 freeway east toward Riverside, then the 215 south toward San Diego. Take exit 10 and turn left onto Newport Road, continue to Domenigoni Parkway and turn right onto State Street. Continue onto Cactus Road, take a slight right onto Sage Road and go 1.6 miles to the intersection of Sage Road and Minto Way.

The site is located on the left just past the intersection, at GPS coordinates 33.649430°N, -116.941202° W. Parking is along Sage Road and/or near Sage on Minto Way. A barbwire fence ends 16 feet east of Sage Road, where a small driveway is present. It is possible to turn right onto the site if you are able to see the driveway at the time of the field visit. At other times it is obscured by vegetation.

5. Delineation in Accordance with USACE Guidance

This Aquatic Resources Delineation (ARD) was conducted according to the USACE 1987 Wetlands Delineation Manual, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual, Arid West Region (Version 2.0), the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (March 2017), Regulatory Guidance Letter 05-05; SUBJECT: Ordinary High Water Mark Identification, A Field Guide to the Identification of the Ordinary High Watermark (OHWM) in the Arid West Region of the Western United States (2008), and Updated Map and Drawing Standards for the South Pacific Division Regulatory Program. Waters of the U. S. (WoUS) subject to the Clean Water Act (CWA) is defined by 33 CFR part 328. Waters subject to the Rivers and Harbors Act (RHA) is defined by 33 CFR part 329.

Nomenclature Used

Terminology has changed over the years; therefore, toward greater clarity and understanding L&L uses terms in this Corps report that follow the Aquatic Resources Delineation language published by the Los Angeles District in October 2019 and also follows Federal level guidance. We describe the resources as Low Flow Channels (below the OHWM), Active Floodplain (at the OHWM), and Low Terrace (above the OHWM). We also describe linear features or channels as Non-Wetland Waters (NWW) or areas as Federal Wetlands (WW) where they fall within the jurisdiction of the

Corps by meeting the three (3) criteria of appropriate hydrology, hydric soils, and hydric vegetation. A Non-Wetland Water of the U. S. (formerly referred to as WoUS) where it is within a Low Flow Channel would be written as NNW LFC. Active Floodplain appears as AFP and Low Terrace appears as LT. The criteria for these designations can be found in the Arid West Field Guide to OHWM and many other publications.

6. Narrative Describing Aquatic Resources

A) Site Description and Landscape Setting

The parcel is surrounded by unoccupied open space and sparsely inhabited rural residences. The western, southwestern, and northwestern edges of the parcel are disturbed by periodic weed abatement activities and a row of mature Eucalyptus trees is located along Sage Road. The remainder of the site is mostly undisturbed, except for a few additional cleared grassy areas and roads. Undisturbed or recovering areas are covered by chaparral and coastal sage scrub.

The site contains a single disconnected NWW that splits (NWW1 and 1a) relatively steep sided canyons on the higher (eastern) 2/3 of the site. There is no evidence that water leaves the site under ordinary or recent conditions (during the last 20 years). The site is located perpendicular to St. John's Canyon on the east side of Sage Road. Sage Road forms a slightly raised barrier between the site and St. Johns Canyon and a mapped blue-line.

Protzman Canyon (contains a blue-line) is located approximately 1,660 feet to the south and Selgato Canyon (contains a blue-line) is located approximately 2,837 feet to the north. A smaller unnamed blue-line drainage is located 540 feet to the north between Selgato Canyon and the site. The entire area, including Cactus Valley which is 6,200 feet to the northwest, drains to the northwest toward Diamond Valley. Using ridgelines, L&L calculated the entire site and uphill tributary area as 755,242 sf (17.3 acres).

B) Site Alterations, Current and Past Land Use

The western 1/3 of the property is disturbed and the eastern 2/3 of the property is mostly undisturbed chaparral/coastal sage scrub with a network of trails and cleared patches, including driveway access along the southeastern boundary. Aerial photo research at the historicaerials.com indicates that the western 1/3 of the site was cleared in the early to mid-1960s. A lesser area has been routinely maintained for ± 20 years. L&L inferred a floodplain based on topography and via Google Earth images; however, there is no evidence that water currently leaves the site. Consultation with the USACOE for a final jurisdictional determination will be required.

B.1) Soils and Geology

Geology

The *Hemet, CA 7.5'* quadrangle is located near the eastern edge of the Perris block of the Peninsular Ranges batholith. The geology of the quadrangle is dominated by Cretaceous tonalite. A now dissected late to middle Pleistocene alluvial complex was produced by the coalesced fans of Goodhart, St. Johns, and Avery canyons, and Cactus Valley (D. M. Morton and J. C. Matti, rev 2008). Surficial sediments in the unindurated, undissected alluvial sediments of the Hemet Map (DF-118, Dibblee and Minch) include Qg Alluvial gravel and sand of stream channels and Qa Alluvial clay and sand of the flat valley areas and sand and pebble gavel of the Bautista Creek alluvial fan, covered by gray soil.

The site is mapped within the plutonic rocks of medium grained holocrystalline granitic rocks of the Peninsular Ranges; Cretaceous age Qdi Quartz diorite (tonalite), ranging to granodiorite, leucocratic, gray-white, composed of about ¼ quartz, ½ sodic plagioclase feldspar, less than ¼ potassic feldspar, about 5% biotite, very little hornblende, massive to faintly gneissoid, locally contains small dark glassy discoid inclusions (xenoliths) oriented parallel to faint gneissoid structure of rock.

Soils

Soil Survey Geographic (SSURGO) Database shapefiles and Web-Soils soils onsite are mapped as Cieneba rocky sandy loam, 15 to 50% slopes, eroded and Vista coarse sandy loam 8 to 15% slopes, eroded (see Figure 4). These carry a hydric rating of zero (Table 1).

Table 1. Hydric rating by mapping unit.

Hydric Rating by Mapping Unit - Western Riverside Area, California (CA679)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	0	6.6	71.4%
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded	0	2.6	28.6%
Totals for Area of Interest			9.2	100.0

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support growth and reproduction of hydrophytic vegetation (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>, accessed 3/26/2020). The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil more specific information, such as the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff 2014) and in the "Soil Survey Manual" (Soil Survey Division Staff 2017). If soils are wet for long enough to be considered hydric, they should exhibit certain properties easily observed in the field. These visible properties are indicators of hydric soils and are specified in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and CV Noble 2010). Soils were examined in the field via test pit (Drainage Photographs).

B.2) Test Pit #1

A single test pit (Test Pit #1) located near to the small patch of oak/willow was excavated by Rachel Irish and Leslie Irish on March 27, 2020. The most recent rain event occurred on March 27, 2020 in the early morning hours. By midday when the survey commenced, soils throughout the site were well drained but moist at the surface.

Test Pit #1 was excavated to a depth of 20 inches and revealed course sandy soils throughout, with a small area of buried and rotting wood located at about 4 inches below the surface. Soils excavated and in the sidewalls of the pit were well drained with little organic component. Moisture levels were uniform throughout and did not increase with depth. Color ranged from sandy white at the surface to gray and finally brown near to the bottom of the pit.

The results of the test pit indicated absence of hydric soil development. Ponding rating for this soil type is none, meaning that the chance of ponding is considered zero in any year.

B.3) Vegetation

A total of 47 plant species were observed and identified during the survey. A list of observed plant species is included in Appendix A.

B.3.1) *Adenostoma fasciculatum* Shrubland Alliance

This habitat type is identified as “Chaparral” in Figure 5. Conspicuous perennials observed in mixed chaparral areas of the site include (but were not limited to) chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus berberidifolia*), hollyleaf redberry (*Rhamnus ilicifolia*), valley cholla (*Cylindropuntia californica*), southern honeysuckle (*Lonicera subspicata*), yellow bush penstemon (*Keckiella antirrhinoides*), and coast figwort (*Scrophularia californica*). Annuals observed in these areas include (but are not limited to) wild cucumber (*Marah macrocarpus*), phacelia (*Phacelia* sp.), chia (*Salvia columbariae*), sapphire woolstar (*Eriastrum sapphirinum*), and fescue (*Festuca* sp.)

B.3.2) *Quercus agrifolia* Woodland Alliance

Only three (3) coast live oak trees (*Quercus agrifolia*) are present within the parcel (Figure 5). These trees are also associated with 4-5 immature and small red willows (*Salix laevigata*), poison oak (*Toxicodendron diversilobum*), yerba santa (*Eriodictyon crassifolium*), and giant wild rye (*Leymus condensatus*).

B.3.3) *Eriogonum fasciculatum* Shrubland Alliance

This habitat is identified as “Coastal Sage Scrub” in Figure 5. Plants observed include California buckwheat (*Eriogonum fasciculatum*), slender buckwheat (*Eriogonum gracile*), brittlebush (*Encelia farinosa*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), deerweed (*Acmispon glaber*), slender tarweed (*Deinandra fasciculata*), dot-seed plantain (*Plantago erecta*), wreath plant (*Stephanomaria* sp.), and fiddleneck (*Amsinckia menziesii* var. *intermedia*). Various non-native grasses have invaded these areas.

B.3.4) Disturbed Non-Native Grasses

Areas of disturbance are associated primarily with the western, northwestern, and southwestern edge of the parcel where weed abatement occurs (Figure 5). The western edge of the parcel also contains mature Eucalyptus trees along Sage Road. Many weedy non-native plant species have invaded this area, including non-native grasses (*Bromus* spp., *Avena barbata*), mustards (*Hirschfeldia* and *Sisymbrium*), Russian thistle (*Salsola tragus*), tumble pigweed (*Amaranthus*

albus), tocolate (*Centaurea melitensis*), and prickly-lettuce (*Lactuca serriola*). Other plants observed in more open and disturbed areas of the site include jimsonweed (*Datura wrightii*), horseweed (*Erigeron canadensis*), and telegraph weed (*Heterotheca grandiflora*).

C) Precipitation Data and Analysis

C.1) Climate and Growing Season

The hot season in the Hemet area lasts for approximately three (3) months, from about June 15 to September 22, with an average daily high temperature above 89° F. The hottest day of the year is typically around August 14, with an average high of 95° F and low of 66° F. The cool season lasts for approximately four (4) months, from about November 21 to March 15, with an average daily high temperature below 70° F. The coldest day of the year is around December 24, with an average low of 41° F and high of 64° F.

The first spring blooms in Hemet should appear around January 19, only rarely appearing before January 13 or after January 29 (<https://weatherspark.com/y/2109/Average-Weather-in-Hemet-California-United-States-Year-Round>). The average temperature in Hemet is 58.92° F and the growing season is 11 months (or 344 days), averaging from January 16 to December 25, rarely starting after March 1 or ending before November 23.

C.2) Precipitation

The rainy period of the year in Hemet lasts for approximately 5.5 months, from October 29 to April 14, with a sliding 31-day rainfall of at least 0.5 inches. Highest rainfall occurs during the 31 days centered around February 19, with an average total accumulation of 2.3 inches. The rainless period of the year lasts for approximately 6.5 months, from April 14 to October 29. The least rain falls around June 16, with an average total accumulation of 0.1 inch. <https://weatherspark.com/y/2109/Average-Weather-in-Hemet-California-United-States-Year-Round>.

Information for March during the period just prior to field work (NRCS WETS for Riverside County, Hemet 2.0 ESE, CA (CoCoRaHS) totaled 4.38 inches for the first 27 days of March. The most recent rain was trace (T) on the night before field work (3.26.2020). Rainfall in the preceding week (3/19 to 3/26) prior to the field visit totaled 0.82 inch of rain.

Precipitation data for the Hemet area during a two (2) hour event average (recurrence of 2 years) is 0.613 inch, 10 year is 1.02, and 100 year is 1.73 inches, on average.

https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?st=ca&sta=04-3896&data=depth&units=english&series=pds (accessed 3/29/2020)

Table 2. Precipitation and NRCS WETS

Climatological Data for HEMET 2.0 ESE, CA (CoCoRaHS) - February 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-02-01	M	M	M	M	M	0.00	M	M
2020-02-02	M	M	M	M	M	0.00	M	M
2020-02-03	M	M	M	M	M	0.04	M	M
2020-02-04	M	M	M	M	M	0.00	M	M
2020-02-05	M	M	M	M	M	0.00	M	M
2020-02-06	M	M	M	M	M	0.00	M	M
2020-02-07	M	M	M	M	M	0.00	M	M
2020-02-08	M	M	M	M	M	0.00	M	M
2020-02-09	M	M	M	M	M	T	M	M
2020-02-10	M	M	M	M	M	0.09	M	M
2020-02-11	M	M	M	M	M	0.00	M	M
2020-02-12	M	M	M	M	M	0.00	M	M
2020-02-13	M	M	M	M	M	0.00	M	M
2020-02-14	M	M	M	M	M	0.00	M	M
2020-02-15	M	M	M	M	M	0.00	M	M
2020-02-16	M	M	M	M	M	0.00	M	M
2020-02-17	M	M	M	M	M	0.00	M	M
2020-02-18	M	M	M	M	M	0.00	M	M
2020-02-19	M	M	M	M	M	0.00	M	M
2020-02-20	M	M	M	M	M	0.00	M	M
2020-02-21	M	M	M	M	M	0.00	M	M
2020-02-22	M	M	M	M	M	0.00	M	M
2020-02-23	M	M	M	M	M	0.21	M	M
2020-02-24	M	M	M	M	M	0.00	M	M
2020-02-25	M	M	M	M	M	0.00	M	M
2020-02-26	M	M	M	M	M	0.00	M	M
2020-02-27	M	M	M	M	M	0.00	M	M
2020-02-28	M	M	M	M	M	0.00	M	M
2020-02-29	M	M	M	M	M	0.00	M	M
AverageSum	M	M	M	M	M	0.34	M	M

Climatological Data for HEMET 2.0 ESE, CA (CoCoRaHS) - March 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-03-01	M	M	M	M	M	0.00	M	M
2020-03-02	M	M	M	M	M	T	M	M
2020-03-03	M	M	M	M	M	0.00	M	M
2020-03-04	M	M	M	M	M	0.00	M	M
2020-03-05	M	M	M	M	M	0.00	M	M
2020-03-06	M	M	M	M	M	0.00	M	M
2020-03-07	M	M	M	M	M	0.01	M	M
2020-03-08	M	M	M	M	M	0.00	M	M
2020-03-09	M	M	M	M	M	M	M	M
2020-03-10	M	M	M	M	M	0.94	M	M
2020-03-11	M	M	M	M	M	0.34	M	M
2020-03-12	M	M	M	M	M	T	M	M
2020-03-13	M	M	M	M	M	1.86	M	M
2020-03-14	M	M	M	M	M	0.10	M	M
2020-03-15	M	M	M	M	M	0.02	M	M
2020-03-16	M	M	M	M	M	0.00	M	M
2020-03-17	M	M	M	M	M	0.29	M	M
2020-03-18	M	M	M	M	M	T	M	M
2020-03-19	M	M	M	M	M	0.26	M	M
2020-03-20	M	M	M	M	M	0.09	M	M
2020-03-21	M	M	M	M	M	0.00	M	M
2020-03-22	M	M	M	M	M	0.00	M	M
2020-03-23	M	M	M	M	M	0.32	M	M
2020-03-24	M	M	M	M	M	0.15	M	M
2020-03-25	M	M	M	M	M	0.00	M	M
2020-03-26	M	M	M	M	M	T	M	M
2020-03-27	M	M	M	M	M	M	M	M
2020-03-28	M	M	M	M	M	M	M	M
2020-03-29	M	M	M	M	M	M	M	M
2020-03-30	M	M	M	M	M	M	M	M
2020-03-31	M	M	M	M	M	M	M	M
AverageSum	M	M	M	M	M	4.38	M	M

C.3) Hydrology

The project is located within LRRC-19 (Southern CA Coastal Plain) within the HUC 802.115 (Hemet HAS) of the Santa Ana Hydrologic Basin Planning Area, as mapped in 1984. The San Jacinto Watershed and the San Jacinto Valley Hydrologic Unit includes Perris HA, Perris Valley HAS, Menifee HAS, Winchester HAS, Lakeview HAS, Hemet HAS, San Jacinto HA, Gilman Hot Springs HAS, Hemet Lake HAS, Bautista HAS, Elsinore Valley HA, Elsinore HAS, and Railroad HSA.

The parcel with within Zone X an area of minimal flood hazard, flood map for the selected area is number 06065C2115G (RIRMette <https://msc.fema.gov/portal/search#searchresultsanchor>).

Visual surface indicators and test pits found no indication of soil saturation for periods long enough to cause changes in the soil. All soils observed were well drained and dry.

Table 3. Arid West Hydrology Indicators.

Indicator	Category	
	Primary	Secondary
Group A – Observation of Surface Water or Saturated Soils (Use Data Point)		
A1 – Surface Water	NO	
A2 – High Water Table	NO	
A3 – Saturation	Yes	
Group B – Evidence of Recent Inundation		
B6 – Surface Soil Cracks	NO	
B7 – Inundation Visible on Aerial Imagery	NO	
B9 – Water-stained leaves	NO	
B11 – Salt Crust	NO	
B12 – Biotic Crust	NO	
B12 – Aquatic Invertebrates	NO	
B1 – Water Marks	Yes	(riverine)
B2 – Sediment deposits	Yes	(riverine)
B3 – Drift Deposits	Yes	(riverine)
B10 – Drainage Patterns	Yes	
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen Sulfide Order	NO	
C3 – Oxidized rhizospheres Along Living Roots	NO	
C4 – Presence of Reduced Iron	NO	
C6 – Recent Iron Reduction in Tilled Soils	NO	
C7 – Thin Much Surface	NO	
C2 - Dry Season Water Table	NO	
C8 – Crayfish Burrows	NO	
C9 – Saturation Visible on Aerial Imagery	NO	
Group D – Evidence From Other Site Conditions or Data		
Shallow Aquitard	NO	
D5 – FAC Neutral Test	NO	

D) Investigation Methods

D.1) Pre-field Review

To ensure efficiency and greater accuracy in the field, areas of interest are identified during the research stage prior to conducting the field survey. Useful maps are uploaded to handheld GPS and applications are downloaded in preparation for real-time data inquiries. Potential for jurisdictional features (streambeds/drainages) or wetlands to occur onsite is assessed via aerial photography, topographic mapping, soil types, trends to hydric conditions, area hydrology, and prior wetlands inventory mapping, etc. Finally, condition of area drainages is forecast based on available rainfall data.

- <http://agacis.rcc-acis.org/?fips=06065> (accessed March 27, 2020)
- <https://www.wunderground.com/dashboard/pws/KCAMONRO6> (accessed March 27, 2020)
- http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html (accessed March 27, 2020)
- <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> (accessed March 27, 2020)
- <https://www.fws.gov/wetlands/Data/Mapper.html> (accessed April 1, 2020))
- https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2019/New/Chapter_3_June_2019.pdf (accessed March 27, 2020)
- <https://viewer.nationalmap.gov/basic/> (accessed October 27, 2019)
- <http://agacis.rcc-acis.org/?fips=06065> (accessed October 27, 2019)
- <https://viewer.nationalmap.gov/basic/> (accessed October 27, 2019)
- https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca (accessed October 27, 2019)
- <https://msc.fema.gov/portal/search?AddressQuery=10701%20Desert%20Lawn%20Drive%2C%20Calimesa%2C%20Riverside%2C%20County%2C%20CA#searchresultsanchor> (accessed on November 5, 2019)
- https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rb8_map_index_hydrologic_areas.pdf (accessed April 1, 2020)

D.2) Onsite Wetland Investigation

Field work was conducted March 27, 2020, during which 10 person hours were expended. The project boundaries are investigated to identify areas where water is received onto the property or transmitted offsite to downstream resources. Each feature was then walked, measured, and assessed via three (3) criteria to determine the presence or absence of OHWM/evidence of flow,

hydrophilic vegetation, or hydric soil conditions. Where evidence of flow is present, combined with or without hydrophytes, soils are examined for anoxic conditions. Soils identified as suitable for development of hydric conditions were given special attention. Soil color characteristics were evaluated using a "Munsell color chart" and all data are reported on appropriate Arid West Wetland Determination Data Forms. The hydrology criterion is satisfied by the observation of standing or flowing water. The soil condition is satisfied by the development of saturated soils with anoxic conditions. The vegetation criterion is satisfied if half or more of the dominant plant species onsite are ranked as "obligate wetland," "facultative wetland," or "facultative" species (OBL, FACW, or FAC, respectively, see Table 4) for federal jurisdiction or presence of any of these species for state/local jurisdiction. A WDP is collected for each test pit location and a WD Form is completed.

During our analysis we used the following indicators of wetlands vegetation:

Table 4. Summary of Wetlands Vegetation Indicator Categories

Indicator Status	Symbol	Definitions
Obligate	OBL	Almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface.
Facultative Wetland	FACW	Usually occur in wetlands but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
Facultative	FAC	Occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.
Facultative Upland	FACU	Usually occur in non-wetlands but may occur in wetlands. These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
Upland	UPL	Almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

D.3) Onsite OHWM Investigation

Geomorphic indicators on the parcel above the OHW included soil development, surface color/tone changes, drainage development, surface relief, surface rounding. Vegetation

indicators on the parcel above the OHW include annual herbs, non-clonal perennial herbs, and mature pioneer trees (no young trees).

OHW physical indicators included shelving, soil character changes, destruction of terrestrial vegetation, bed and banks, changes in plant community. Geomorphic indicators were litter and silt deposits, while the vegetation indicator was annual herbs.

E) Description of Wetlands and Non-Wetland Waters

E.1) Wetlands Results

L&L did not find federal wetlands present onsite, based on the results of a test pit displaying well drained sandy soils near the facultative vegetation present onsite (Test Pit #1). Information gathered in the field is depicted in Figure 7 and Table 5.

Table 5. Summary Aquatic Resources.

Label	Length (ft.)	ACOE (sq. ft.)	ACOE (acres)	Planned Impact
1	1,257	2,675	0.06	0.00
1a	582	2,598	0.06	0.00
Total	1,839	5,273	0.12	0.00

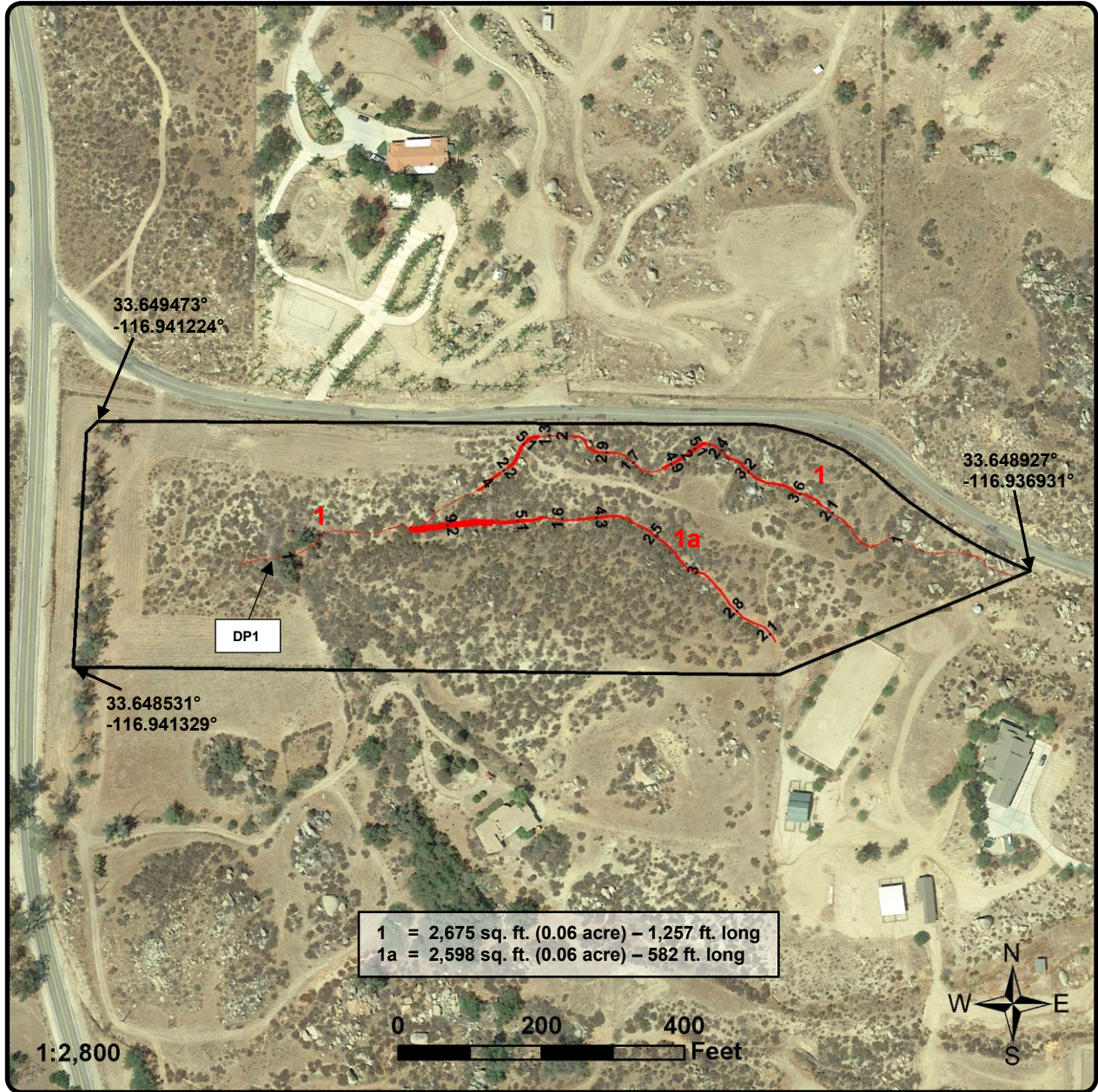
E.2) Drainage Features

E.2.1) NWW #1

NWW #1 begins at the most northeasterly boundary of the property and roughly follows Minto Way, then merges with Streambed #1a and ends just below a wetland that confines flows into a pipe. Thereafter, flows disappear into the sandy substrate. On the day of our site visit, the NWW OHWM ended ± 50 feet below the wetland area. As clear evidence of OHWM was not visible below this point and not visible on aerial photos, we terminated flows before leaving the site.

Feature 1 ranges in width between 1-5 feet with cut vertical sidewalls that range in height from 3 inches at trail crossing to as deep as 4 feet within the steeper walled portions. The deepest cuts are within loamy soils with annual grass cover and the shallowest cutting occurs near granite rock boulders that range in size from 3-10 feet in diameter.

Vegetation in these features is either annual grasses or chamise chaparral, with occasional buckwheat punctuated by exposed granitic boulders without soil cover.



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL
INVESTIGATIONS AND MONITORING

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Figure 7

ACOE Features
(Aerial obtained from Google Earth, August 2018)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California

E.2.2) NWW #1a

Feature #1a begins at a graded and disturbed area along the southeastern boundary of the parcel, just downhill from an adjacent ranch. Feature 1a flows west and then curves north to connect with Feature 1, just upstream of the state wetland.

Very similar to Feature 1, Feature 1a ranges in width but has stretches of broader OHWM ranging between 1-9 feet, with deeper cut vertical sidewalls that range in height from three (3) inches at trail crossing to as deep as six (6) feet within the steeper walled portions. The deepest cuts are within loamy soils with annual grass cover and the shallowest cutting occurs near trails and granite rock boulders that range in size from 3-12 feet in diameter. The major difference between the two portions of the combined feature are that Feature 1a is a bit less arid, falling within a steeper more confined area that contains more exposed granite boulders. It also has fewer hiking trails, but more apparent disturbance at the upper end adjacent and related to a graded driveway entrance and gate.

Vegetation in Feature 1a is either annual grasses or dense chamise chaparral, with occasional buckwheat punctuated with boulders without soil cover.

F) Deviations for LWI or NWI

Mapping between USGS and NWI is consistent.

G) Mapping Methods

L&L collects data in the field with handheld GPS and then post-processes the information with Google Earth. In most cases Google Earth files are converted to ArcGIS shapefiles and maps and exhibits as well as data tables are generated from the GIS layer.

H) Additional Information

N/A

Remote Sensing

Remote sensing was not used in the preparation of this report.

Bulk Upload Spreadsheet

The site does not have more than two (2) separate aquatic features and a Bulk Upload Aquatic Resources spreadsheet is not required.

GIS Data

GIS files are provided as an attachment to the electronic version of this report and as digital media (CD-ROM) with the hardcopy version.

I) Results and Conclusions

L&L found both jurisdictional “waters of the U. S.” and “waters of the state” within the Project, based on hydrogeomorphology and OHWM alone. The site shows no surface hydrological connection to downstream waters, due primarily to soil porosity and low volume flows.

L&L concluded that 0.12 acre of NWW subject to the control of the USACE is present within the parcel, all of which is planned for avoidance. There will be no impact to jurisdictional features by the proposed site development.

This Aquatic Resources Delineation should form the basis of a discussion with the Corps at a Riverside County Regional Conservation Authority Pre-Application Meeting, where the proponent and consultant may share project information and determine next best steps.

J) Disclaimer Statement (preliminary evaluation and USACE must agree)

All jurisdictional delineations conducted by L&L are considered “preliminary” until verified and accepted or acted upon by the USACE.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: MMJC-19-736.JD City/County: Riverside Unincorporated Sampling Date: 3/27/20
 Applicant/Owner: Judy Baily Savage State: CA Sampling Point: DP 1
 Investigator(s): Rachel Irish/ Leslie Irish Section, Township, Range: Section 13, T6S R1W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): ±10
 Subregion (LRR): C-19 Lat: 33.648948° Long: -116.940446° Datum: NAD86
 Soil Map Unit Name: Vista Corse Sandy Loam 8-15% slope 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>10 x 10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____				
2. <u>Salix laevigata (red willow species)</u>	<u>50</u>	<u>no</u>	<u>FacW</u>	
3. <u>Quercus agrifolia (coast live oak)</u>	<u>50</u>	<u>no</u>	<u>Up</u>	
4. _____				
	<u>100</u>	<u>= Total Cover</u>		
Sapling/Shrub Stratum (Plot size: <u>10 x 10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>50</u> x 2 = <u>100</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>35</u> x 4 = <u>140</u> UPL species <u>105</u> x 5 = <u>525</u> Column Totals: <u>190</u> (A) <u>765</u> (B) Prevalence Index = B/A = <u>4.02</u>
1. <u>Toxicodendron diversilbum (pacific poison oak)</u>	<u>10</u>	<u>no</u>	<u>FacU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>10</u>	<u>= Total Cover</u>		
Herb Stratum (Plot size: <u>10 x 10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Amsinckia menziesii var intermedia (common fiddleneck)</u>	<u>10</u>	<u>no</u>	<u>Up</u>	
2. <u>Avena barbata (slender wild oat)</u>	<u>5</u>		<u>Up</u>	
3. <u>Bromus madritensis ssp rubens (foxtail chess)</u>	<u>20</u>		<u>FacUp</u>	
4. <u>Bromus hordeaceus (soft chess)</u>	<u>5</u>		<u>FacUp</u>	
5. <u>Festuca arvernensis (field fescue)</u>	<u>30</u>		<u>Up</u>	
6. <u>Melica imperfecta (common melic)</u>	<u>5</u>		<u>Up</u>	
7. <u>Schismus barbatus (mediterranean grass)</u>	<u>5</u>		<u>Up</u>	
8. _____				
	<u>70</u>	<u>= Total Cover</u>		
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Echinocystis lobata (wild cucumber)</u>	<u>5</u>		<u>FacUp</u>	
2. _____				
	<u>5</u>	<u>= Total Cover</u>		
% Bare Ground in Herb Stratum <u>30</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

SOIL

Sampling Point: DP #1

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 ¹	Loc ²		
4	10YR - 8/1						course sand	buried wood at 4"
5-8	7.5YR 4/2						course sand	moist well drained

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: 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"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<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 Soils³:

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

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	

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

Remarks:

SECTION III: PRELIMINARY CDFW REPORT

MANAGEMENT SUMMARY

At the request of Judy Bailey-Savage of MMJ Construction, Inc., L&L Environmental, Inc. (L&L) conducted a preliminary jurisdictional delineation on ±9.2 Acres identified as APN 470-070-043 in Riverside County, California.

The purpose of this delineation is to quantify the portion of a property that is subject to California Department of Fish and Wildlife (CDFW) jurisdiction under the CDFG 1600 Code and to provide additional information to the Regional Water Quality Control Board (RWQCB) for consideration under Section 401 of the Clean Water Act. A jurisdictional delineation is performed to map wetland and non-wetland features of a property that may be subject to regulation by the State of California and may require permits prior to disturbance/construction. All jurisdictional delineations are considered preliminary until verified and accepted by the agencies.

Due to changes in regulatory guidelines, this report has been produced in three (3) sections: a federal level document intended for use with the USACE and the RWQCB, a California level document intended for use with the California Department of Fish and Wildlife under the 1600 Code, with additional information applicable to the Regional Water Quality Control Board under Section 401 of the Clean Water Act, and a third section that addresses the Western Riverside County MSHCP. For convenience, it is bound together but is intended to be separated for permit application submittal.

L&L regulatory analyst and wetland delineators Leslie Irish and Rachel Irish evaluated the site during a series of actions that included pre-survey research and data review, followed by a field survey and mapping effort conducted on the property March 27, 2020.

Research consisted of a review of topographic maps, soils information, aerial photography, and a field examination of vegetation, soils, and hydrology using the USACE three (3) parameter method (hydrophilic vegetation, hydric soils, and hydrology) of wetland delineation (U. S. Department of the Army 1987). Post processing of the data included a review of files collected with a handheld Trimble GPS device synthesized with topographic and LiDAR maps and Google Earth.

The project is a largely rectangular open and mostly undeveloped lot. The parcel is located within Criteria Cell 4991, which is a part of Cell Group S'. Criteria for the Cell Group call for 75-85% conservation for the construction of Proposed Linkage 14. More than 98% of Cell Group S' remains available for conservation. The proposed project will impact ±2.42 acres and provide

±6.78 acres of conservation land to the MSHCP. Surveys for Los Angeles pocket mouse and slender-horned spinyflower are not required by the MSHCP for this parcel.

A discrepancy in the size of the lot was noted during the development of this report and it has been agreed that the property will be described as 9.2 acres (per communication with Matthew Poonamallee, 3-17-2020).

L&L found 52,353 sf (1.20 acres) of State Streambed(s) subject to the California Department of Fish and Game 1600 Code present on the parcel; however, these areas are nearly entirely within the 6.7 acres planned for conservation, with a small area of avoidance planned for the parcel outside of the conservation area. A Streambed Alteration Agreement (SAA) has not been recommended, as the project will avoid all mapped streambeds. The planned project will impact no state streambed and no state wetland.

1.0) INTRODUCTION

The following report was written by L&L Environmental, Inc. (L&L) for MMJ Construction, Inc. It describes the results of a delineation conducted for a proposed development located within the County of Riverside (HAN190029).

The site consists of a single parcel, APN 470-070-043 (Parcel Map 18252) ±9.2 acres, with 2.5 acres planned for development and 6.7 acres planned for conservation. Development onsite is intended to provide growing space (within greenhouses) for medical marijuana to be made available to low income and/or short life expectancy patients. The site will be surrounded by a chain-link fence and contain greenhouses, an access road, warehouses, solar panels, and a picnic/recreation area. The development is planned to take place within 2.5 acres of the western portion of the site, which is disturbed, compacted, and leveled.

Our assessment consisted of (1) a records search and literature review, conducted to determine what species of concern are in the project area, proximity to closest documented special status species, and MSHCP objectives and (2) field reconnaissance, intended to identify plants and animals on the property and presence/absence of habitat for species of concern.

1.1) Location

The site is located in the St. Johns Canyon area (Figure 1), just southeast of the intersection of Sage Road and Minto Way. The site is situated within Section 13 of Township 6 south, Range 1 west, within the USGS *Hemet, CA 7.5'* series quadrangle map (Figure 2).

The site is generally bounded as follows: to the west by Sage Road, open space, and sparse rural residences; to the east by open space and sparse rural residences; to the north by open space, and sparse rural residences; and to the south by open space, and sparse rural residences (Figure 3).

1.2) Vegetation and Setting

The parcel is surrounded by unoccupied open space and sparsely inhabited rural residences. The western, southwestern, and northwestern edges of the parcel are disturbed by periodic weed abatement activities and a row of mature Eucalyptus trees is located along Sage Road. The remainder of the site is mostly undisturbed, except for a few additional cleared grassy areas and roads. Undisturbed or recovering areas are covered by chaparral and coastal sage scrub.

2.0) METHODS

2.1) Pre-Survey Research Methods and Purpose

A wealth of information is available online and is updated at regular intervals by the agencies and universities. To ensure efficiency and greater accuracy in the field, areas of interest are identified during the research stage prior to conducting the field survey. Useful maps are uploaded to handheld GPS and applications are downloaded in preparation for real-time data inquiries. Potential for jurisdictional features (streambeds/drainages) or wetlands to occur onsite is assessed via aerial photography, topographic mapping, soil types, trends to hydric conditions, area hydrology, and prior wetlands inventory mapping, etc. Finally, condition of area drainages is forecast based on available rainfall data.

Sources Project Level Engineering Topo (March 6, 2019) , LiDAR (The National Map <https://viewer.nationalmap.gov/basic/>), Wildlife agencies, CNPS, CNDDDB, WebSoil, USDI Geological Survey, GlobeXplorer, Google Earth (1994-2018, accessed, July-August 2019), 2013 Arid West Regional Wetland Plant List, Natural Resources Conservation Service, University of California at Davis, Agriculture and Natural Resources, California Soil Resources Lab, U. S. Department of the Interior Geological Survey.

- <http://agacis.rcc-acis.org/?fips=06065> (accessed March 27, 2020)
- <https://www.wunderground.com/dashboard/pws/KCAMONRO6> (accessed March 27, 2020)
- http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html (accessed March 27, 2020)
- <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> (accessed March 27, 2020)
- <https://www.fws.gov/wetlands/Data/Mapper.html> (accessed April 1, 2020)
- https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2019/New/Chapter_3_June_2019.pdf (accessed March 27, 2020)
- <https://viewer.nationalmap.gov/basic/> (accessed April 1, 2020)
- <http://agacis.rcc-acis.org/?fips=06065> (accessed April 1, 2020)
- <https://viewer.nationalmap.gov/basic/> (accessed April 1, 2020)
- https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca (accessed April 1, 2020)
- <https://msc.fema.gov/portal/search?AddressQuery=10701%20Desert%20Lawn%20Drive%2C%20Calimesa%2C%20Riverside%20County%2C%20CA#searchresultsanchor> (accessed April 1, 2020)

- https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rb8_map_index_hydrologic_areas.pdf (accessed April 1, 2020)

2.2) Field Survey Methods and Purpose

The project boundaries are investigated to identify areas where water is received onto the property or transmitted offsite to downstream resources. Each feature is then walked, measured, and assessed via three (3) criteria to determine the presence or absence of OHWM/evidence of flow, hydrophilic vegetation, or hydric soil conditions. Where evidence of flow is present, combined with or without hydrophytes, soils are examined for anoxic conditions. Soils identified as suitable for development of hydric conditions are given special attention. Soil color characteristics are evaluated using a "Munsell color chart" and all data are reported on appropriate Arid West Wetland Determination Data Forms. The hydrology criterion is satisfied by the observation of standing or flowing water. The soil condition is satisfied by the development of saturated soils with anoxic conditions. The vegetation criterion is satisfied if half or more of the dominant plant species onsite are ranked as "obligate wetland," "facultative wetland," or "facultative" species (OBL, FACW, or FAC, respectively, see Table 1) for federal jurisdiction or presence of any of these species for state/local jurisdiction.

Vernal Pools

In the course of our investigation of the property we searched for vernal pools. To meet the definition of a vernal pool three (3) factors must be addressed: suitable soil and soil conditions, proper hydrology, and one (1) or more indicator species.

During our analysis we used the following indicators of wetlands vegetation:

Table 1. Summary of wetlands vegetation indicator categories.

Indicator Status	Symbol	Definitions
Obligate	OBL	Almost always occur in wetlands. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface.
Facultative Wetland	FACW	Usually occur in wetlands but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
Facultative	FAC	Occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.
Facultative Upland	FACU	Usually occur in non-wetlands but may occur in wetlands. These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
Upland	UPL	Almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

3.0) RESULTS

3.1) Site Specific Hydrology

Approximately 4.72 inches of rainfall was recorded in east south east Hemet during the months of February and March preceding the field survey date (https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?st=ca&sta=043896&data=depth&units=english&series=pds, accessed 3/29/2020), between February 1 and March 27, 2020. The most recent rainfall was trace (T) occurring early in the morning on the day of the field visit. Rainfall runoff generally ceases to flow through features on the parcel within a few days at most and water does not pond or pool at the surface. Water was not found to be present at the surface or subsurface in the Test Pit. All of the features were determined to be ephemeral riverine carriers of rainfall within the San Jacinto River watershed.

3.2) Topography

Topographically, the site contains an isolated shallow canyon within the parcel. Elevation onsite ranges between 2,047 feet above mean sea level (AMSL) at the eastern corner and 1,920 AMSL at the southwest corner of the parcel, adjacent to Sage Road.

The site is located along St. John's Canyon on the east side of Sage road, which forms a slightly raised barrier between St. Johns Canyon's mapped blue-line and the site. Protzman Canyon (blue-line) is located approximately 1,680 feet south and Selgato Canyon (blue-line) is located approximately 3,150 feet north of Minto Way. The entire area, including Cactus Valley which is 4,900 feet to the north, drain to the northwest toward Diamond Valley. Using ridgelines, L&L calculated the watershed of the entire site and tributary area as ± 20 acres.

3.3) Soils and Geomorphology

Geology

The *Hemet, CA 7.5'* quadrangle is located near the eastern edge of the Perris block of the Peninsular Ranges batholith. The geology of the quadrangle is dominated by Cretaceous tonalite. A now dissected late to middle Pleistocene alluvial complex was produced by the coalesced fans of Goodhart, St. Johns, and Avery canyons, and Cactus Valley (D. M. Morton and J. C. Matti, rev 2008). Surficial sediments in the unindurated, undissected alluvial sediments of the Hemet Map (DF-118, Dibblee and Minch) include Qg Alluvial gravel and sand of stream channels and Qa

Alluvial clay and sand of the flat valley areas and sand and pebble gravel of the Bautista Creek alluvial fan, covered by gray soil.

The site is mapped within the plutonic rocks of medium grained holocrystalline granitic rocks of the Peninsular Ranges; Cretaceous age Qdi Quartz diorite (tonalite), ranging to granodiorite, leucocratic, gray-white, composed of about ¼ quartz, ½ sodic plagioclase feldspar, less than ¼ potassic feldspar, about 5% biotite, very little hornblende, massive to faintly gneissoid, locally contains small dark glassy discoid inclusions (xenoliths) oriented parallel to faint gneissoid structure of rock.

Soils

Soil Survey Geographic (SSURGO) Database shapefiles and Web-Soils soils onsite are mapped as Cieneba rocky sandy loam, 15 to 50% slopes, eroded and Vista coarse sandy loam 8 to 15% slopes, eroded (see Figure 4). These carry a hydric rating of zero (Table 1).

Table 2. Hydric rating by mapping unit.

Hydric Rating by Mapping Unit - Western Riverside Area, California (CA679)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	0	6.6	71.4%
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded	0	2.6	28.6%
Totals for Area of Interest			9.2	100.0

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support growth and reproduction of hydrophytic vegetation (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>, accessed 3/26/2020). The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil more specific information, such as the depth and duration of the water table, is needed. Thus, criteria that identify those estimated

soil properties unique to hydric soils have been established (Federal Register 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff 2014) and in the "Soil Survey Manual" (Soil Survey Division Staff 2017). If soils are wet for long enough to be considered hydric, they should exhibit certain properties easily observed in the field. These visible properties are indicators of hydric soils and are specified in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and CV Noble 2010). Soils were examined in the field via test pit (Drainage Photographs).

Test Pit #1

A single test pit (Test Pit #1) located near to the small patch of oak/willow was excavated by Rachel Irish and Leslie Irish on March 27, 2020. The most recent rain event occurred on March 27, 2020 in the early morning hours. By midday when the survey commenced, soils throughout the site were well drained but moist at the surface.

Test Pit #1 was excavated to a depth of 20 inches and revealed course sandy soils throughout, with a small area of buried and rotting wood located at about 4 inches below the surface. Soils excavated and in the sidewalls of the pit were well drained with little organic component. Moisture levels were uniform throughout and did not increase with depth. Color ranged from sandy white at the surface to gray and finally brown near to the bottom of the pit.

The results of the test pit indicated absence of hydric soil development. Ponding rating for this soil type is none, meaning that the chance of ponding is considered zero in any year.

Soils onsite are mapped as Cieneba rocky sandy loam (15-50% slopes, eroded) and Vista coarse sandy loam (8-15% slopes, eroded, see Figure 4). Soils observed matched those mapped. More specifically, the elevation change within the parcel boundary is a total of 127 feet (2,047-1,920) between the eastern boundary corner and the southwestern boundary corner, a distance of 1,340 feet creating a ± 9.5 percent grade. Due to the coarse sand and rocky substrate, drainages are deeply incised and precipitation soaks into the ground within the sandy sloped area at the lowest point (southwest) without leaving the site. Areas outside the parcel that may be incorporated into the project design near the intersection of Sage and Minto and along Sage road are moderately sloped but without defined erosion or drainages.

The site is best understood if divided into thirds. Within the eastern end of the property two (2) features are present, largely vegetated by chaparral with buckwheat and an understory of non-

native grasses and native herbs. Features in the eastern third of the property are level to deeply incised within small erosional features that range in width at top of slope from nearly level to approximately 34 feet along Minto Way.

In the second or middle section of the site the erosional features are narrow (3-6 feet) and confined with higher ridgelines on the north and south, with shallow to deeply incised vertical cut sandy soils (1-6 feet deep) that are heavily vegetated and nearly impassable due to old growth chaparral, trending to broader open areas where the features merge.

The lowest and western third of the property has a change in topography direction and slopes from northeast to southwest, which has created a narrow somewhat confined wetland. A stratified wetland contains a vine (wild cucumber), a grass/herb layer (*Amsinckia* and non-native grasses), a shrub layer of poison oak, and an overhead layer consisting of a single willow. A moderate amount of woody debris and deadfall is present, which adds to the containment.

Flows west of the wetland extend from a 6-8-inch pipe that is present underground at a level ranging in depth between three (3) feet on the upstream end and one (1) foot on the downstream end. Flanking the wetland in the tree layer are two (2) mature oaks located north and south of a single old growth (trunk size exceeding 12 inches in diameter) fallen (prostrate) willow that is partially decayed and separated into two (2) living sections visible on photos. An additional section of the willow (possibly a section of the original willow tree trunk) is located parallel to and overlaying the drainage on the uphill side of the wetland.

Information provided by the current owner (Judy Baily-Savage) indicates the land was owned for approximately 60 years by the Smith family (residents of Hemet). The Smiths intended to grow vegetables on the property and cleared the western $\pm 1/3$ of the property. The vegetable growing operation never materialized, but it may account for the confinement of flow at the natural narrowed area of the wetland and the placement of the pipe to allow direction of flows.

In the current condition, flows are generated within the parcel or within a short distance upstream near ridgelines and travel westward, conjoining into a central area within the southern middle 1/3 of the site. A watermark is present below the wetland for a distance of approximately 40 feet; thereafter, evidence of surface flow disappears as water is absorbed into the deep coarse sand bed that is present between the wetland and Sage Road. Because of the amount of disturbance in the general area (which includes the construction of Sage Road and Minto Way) and the upstream development of several large parcels, L&L investigated the history and timing of

disturbance on the property and in the general area that may have influenced current hydrogeomorphology.

Google Earth:

Google Earth aerial photos are available for the property between June of 1996 and 2018. The 1996 aerial shows an area of disturbance that is fairly consistent with the current condition, with one exception, the presence of evidence of flow across the westerly (disturbed/graded) portion of the site is seen flowing in a southwesterly direction. The 2002 aerial is essentially the same, but shows evidence of development uphill of the site.

By October of 2003 development had occurred near the southeastern boundary and dirt paths and hiking trails are present on the parcel along the northern and southern boundary. Some evidence of clearing and leveling had occurred in these areas. Three (3) years later in 2006 the site appears to have recovered somewhat and disturbed areas are seen recovering, although a row of eucalyptus trees had been planted along Sage Road and the drainage no longer appears to connect to downstream waters. The site may have been cut off from upstream flows by the development of a ranch facility immediately to the west.

By June of 2009 site development and disturbances were confined to the shape and condition that appears today.

Historic Aerials/Historic Topo

An evaluation of the project on HistoricAerials.com shows that disturbance to the area planned for impact during development, plus a larger area totaling an estimated 30% of the property, had been cleared and somewhat leveled as early as 1967.

A single Test Pit located near the small patch of oak/willow was excavated by Rachel Irish and Leslie Irish on March 27, 2020. The most recent rain event occurred on March 27, 2020 in the early morning hours. By midday when the survey commenced soils throughout the site were well drained, but moist at the surface.

Test Pit #1 was excavated to a depth of 20 inches and revealed course sandy soils throughout, with a small area of buried and rotting wood located at about four (4) inches below the surface. Soils excavated and in the sidewalls of the pit were well drained, with little organic component. Moisture levels were uniform throughout and did not increase with depth. Color ranged from sandy white at the surface to gray and finally brown near to the bottom of the pit.

The results of the Test Pit indicate absence of hydric soil development. Ponding rating for this soil type is “none” – meaning that the chance of ponding is considered zero in any year.

3.4) Vegetation and Setting

The site has been partially developed and contains a cleared lot. The habitat map developed for the MSHCP shows this area as developed land. Away from the developed portion of the lot the land is mostly undisturbed, with the exception of several trails and cleared areas (Figure 5).

3.4.1) Vegetation Series

A total of 47 plant species were observed and identified during surveys by L&L. A list of observed plant species is included in Appendix A.

3.4.2) *Adenostoma fasciculatum* Shrubland Alliance

This habitat type is identified as “Chaparral” in Figure 5. Conspicuous perennials observed in mixed chaparral areas of the site include (but were not limited to) chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus berberidifolia*), hollyleaf redberry (*Rhamnus ilicifolia*), valley cholla (*Cylindropuntia californica*), southern honeysuckle (*Lonicera subspicata*), yellow bush penstemon (*Keckiella antirrhinoides*), and coast figwort (*Scrophularia californica*). Annuals observed in these areas include (but are not limited to) wild cucumber (*Marah macrocarpus*), phacelia (*Phacelia* sp.), chia (*Salvia columbariae*), sapphire woolstar (*Eriastrum sapphirinum*), and fescue (*Festuca* sp.)

3.4.3) *Quercus agrifolia* Woodland Alliance

Only three (3) coast live oak trees (*Quercus agrifolia*) are present within the parcel (see Figure 5). These trees are also associated with 4-5 immature and small red willows (*Salix laevigata*), poison oak (*Toxicodendron diversilobum*), yerba santa (*Eriodictyon crassifolium*), and giant wild rye (*Leymus condensatus*).

3.4.4) *Eriogonum fasciculatum* Shrubland Alliance

This habitat is identified as “Coastal Sage Scrub” in Figure 5. Plants observed include California buckwheat (*Eriogonum fasciculatum*), slender buckwheat (*Eriogonum gracile*), brittlebush (*Encelia farinosa*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), deerweed (*Acmispon glaber*), slender tarweed (*Deinandra fasciculata*), dot-seed plantain (*Plantago erecta*), wreath plant

(*Stephanomaria* sp.), and fiddleneck (*Amsinckia menziesii* var. *intermedia*). Various non-native grasses have invaded these areas.

3.4.5) Disturbed Non-Native Grasses

Areas of disturbance are associated primarily with the western, northwestern, and southwestern edge of the parcel where weed abatement occurs (Figure 5). The western edge of the parcel also contains mature Eucalyptus trees along Sage Road. Many weedy non-native plant species have invaded this area, including non-native grasses (*Bromus* spp., *Avena barbata*), mustards (*Hirschfeldia* and *Sisymbrium*), Russian thistle (*Salsola tragus*), tumble pigweed (*Amaranthus albus*), tocolate (*Centaurea melitensis*), and prickly-lettuce (*Lactuca serriola*). Other plants observed in more open and disturbed areas of the site include jimsonweed (*Datura wrightii*), horseweed (*Erigeron canadensis*), and telegraph weed (*Heterotheca grandiflora*).

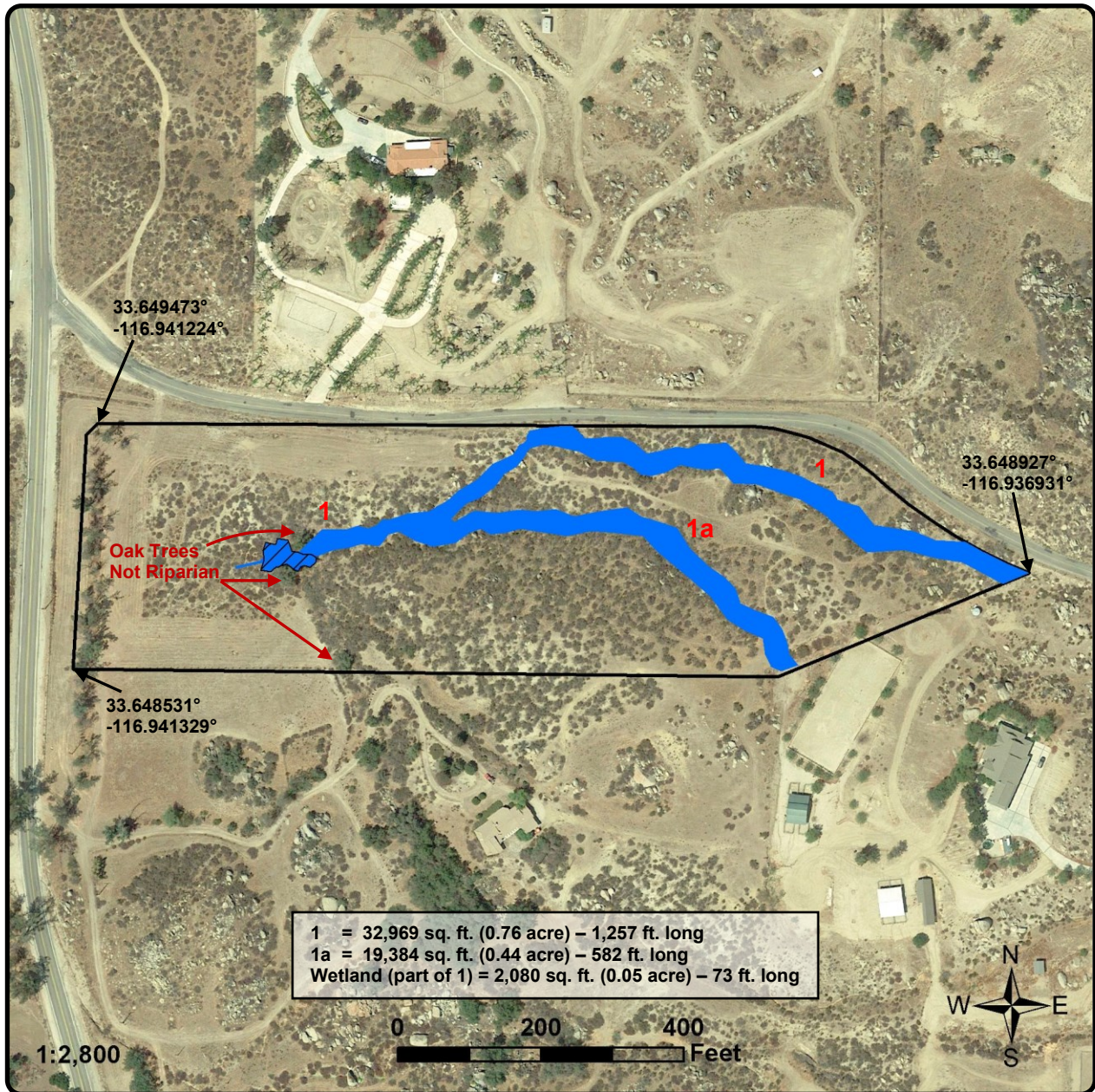
3.4.6) State Wetland Habitat #1

At the terminal end of the erosional feature, just uphill and generally west of the planned impacts, a small area of state wetland is present (Figure 7). Vegetation in this area consists of a single prostrate willow flanked on the toe of slope to the north and south by mature oaks. The understory contains poison oak and wild cucumber, *Amsinckia*, giant wild rye, and non-native annual grasses. A branch of the willow has re-sprouted, forming two (2) living sections. The remaining portions of the tree, including the trunk, are scattered around the wetland and are well rotted and decomposing. The area of this wetland has been combined into the overall jurisdiction for CDFW.

3.4.7) Vernal Pool and Vernal Pool Habitat

Vernal pools and vernal pool habitat were not present within the parcel and soil types are not consistent with an alkali playa or vernal pool complex. No evidence of pools or depressions characteristic of vernal pool habitat were noted as present on the subject property. Vernal pools are defined as:

“ . . . seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.”



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL
INVESTIGATIONS AND MONITORING

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Figure 7

CDFW Streambed & Riparian Habitat
& MSHCP Riparian/Riverine Habitat
(Aerial obtained from Google Earth, August 2018)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California

3.5) Identified Features

The project is located within LRRC-19 (Southern CA Coastal Plain) and within the HUC 802.115 (Hemet HAS) of the Santa Ana Hydrologic Basin Planning Area, as mapped in 1984. The San Jacinto Watershed and the San Jacinto Valley Hydrologic Unit includes Perris HA, Perris Valley HAS, Menifee HAS, Winchester HAS, Lakeview HAS, Hemet HAS, San Jacinto HA, Gilman Hot Springs HAS, Hemet Lake HAS, Bautista HAS, Elsinore Valley HA, Elsinore HAS, and Railroad HSA.

The parcel is located within Zone X, an area of minimal flood hazard. The flood map for the selected area is number 06065C2115G, effective on 08/28. RIRMette Map:

<https://msc.fema.gov/portal/search#searchresultsanchor>

3.5.1) Streambed #1

Streambed #1 begins at the northeastern boundary of the parcel and roughly follows Minto Way, then merges with Streambed #1a and ends just below the wetland. An underground pipe carries flow below the wetland for approximately 40 feet, before ending in the sandy substrate.

Streambed #1 ranges in width between 1-9 feet, with cut vertical sidewalls that range in height from three (3) inches at trail crossing to as deep as four (4) feet within the steeper walled portions. The deepest cuts are within loamy soils, with annual grass cover where the shallowest cutting occurs near granite rock boulders that range in size between 3-12 feet in diameter.

Vegetation in the feature, outside of the wetland, is either annual grasses or chamise chaparral with occasional buckwheat.

3.5.2) Streambed #1a

Streambed #1a begins at a graded and disturbed area along the southeastern parcel boundary, just downhill from an adjacent ranch. Streambed #1a flows west and then curves north to connect with Streambed #1, just upstream of the state wetland.

Very similar to Streambed #1, Streambed #1a ranges in width between 1-12 feet, with cut vertical sidewalls that range in height between three (3) inches at trail crossings to as deep as six (6) feet within the steeper walled portions. The deepest cuts are within loamy soils, with annual grass cover and shallowest cutting occurring near granite rock boulders that range in size between 3-12 feet in diameter. The major difference between the features is that Streambed #1a is a bit less

arid, because it is located within a steeper more confined area that contains more granite boulders. It also has fewer hiking trails, but more apparent disturbance on the upper end adjacent to a graded driveway entrance and gate. Vegetation within the feature is either annual grasses or dense chamise chaparral, with occasional buckwheat.

Table 3. CDFW Jurisdiction.

Label	CDFW (sq. ft.)	CDFW (acres)	Wetland (acres)	Planned Impact (acres)
1	32,969	0.71	0.05	0.00
1a	19,384	0.44	0.00	0.00
Total	52,353	1.15	0.05	0.00

3.6) Functions and Values Assessment

The purpose of a functions and values assessment is to determine the net effect of impact(s) to state and federal waters where a project proposes to modify a drainage feature for non-water dependent use, such as housing. From a regulatory perspective human occupation is not water dependent, rather humans consume water or use water for recreation, etc. and these are considered beneficial human uses under the Clean Water Act. Because other biological lifeforms are water dependent, our system of laws requires us to consider the net impact of any action that would directly or indirectly affect a water feature. Federal law first requires avoidance (where practicable), next minimization of impacts, and finally mitigation to the “no net loss” standard. State laws require specific analysis of planned impacts and mitigation for impacts, including temporal loss which would result in loss of functional (biological) uses between the period of impact and the point fully functional mitigation is available to wildlife, etc. These factors are considered in the ratios applied for a determination that mitigation has reduced or eliminated any significant impact.

In considering functions and values, planned impact is weighed against the planned offsetting measure to determine increase or decrease in functions or values. The goal is status quo or a net increase in functions and values for the combined actions (impacts and offsets). L&L accessed the Waterboards.ca.gov website to determine the beneficial uses for the subject site on April 1, 2020. The project falls within the Hemet South management Zone, San Jacinto Basins Updated beneficial uses (June 2019) for Hemet South are (HUC 802.13) include: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PROC).

https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2019/New/Chapter_3_June_2019.pdf

Table 4. Functions and values assessment.

<u>Functions and Values</u>	<u>Net Increase or Loss</u>
Municipal and Domestic Supply	<u>Functional status quo</u> – after BMP mitigation the project should have no net impact on the functions and values of the municipal or domestic water supply.
Agricultural Supply	<u>Functional status quo</u> – after BMP mitigation the project should have no net impact on the functions and values of the agricultural water supply.
Industrial Service Supply	<u>Functional status quo</u> – after BMP mitigation the project should have no net impact on the functions and values of the agricultural water supply.
Industrial Process Supply (PROC)	<u>Functional status quo</u> – after BMP mitigation the project should have no net impact on the functions and values of the Industrial process water supply.

4.0) CONCLUSIONS

L&L found “waters of the state” present within the Project. “Waters of the state” means any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code Section 13050[e]). Jurisdictional streambeds or drainages connect to downstream flows and are also jurisdictional.

Wetland areas within or adjacent to a project site that exhibit one (1) or more of the three (3) parameters (water modified soils, facultative vegetation, or surface or subsurface water) are regulated by the California Department of Fish and Wildlife (CDFW). All jurisdictional determinations are considered preliminary unless the State of California has identified jurisdiction of the feature.

Total Resources Present within the Study Boundary

L&L found 52,535 sf (1.20 acre) of combined California Streambed and California Wetland present within onsite. Included within the limits of the California State Streambed are federal Aquatic Resources of 1,839 lf (5273 sf/0.12 acre) of non-wetland waters of the U. S. (NWW).

Planned Impacts

The proponent has redesigned the project to allow for 100% avoidance of all jurisdictional areas onsite and conservation of 6.78 acres that contain the majority of the Streambed. A small area of state and federal jurisdiction extends into the non-conserved proposed project (2.42 acre) area; however, this will be avoided by the project design (Figure 5). Based on the level of conservation, this project alternative is the Least Environmentally Damaging Practical Alternative (LEDPA) and offers long term conservation value to Riverside County.

Avoidance and Minimization Measures

The project has agreed to dedicate 6.78 acres of the site to the RCA as conservation lands as a part of the HANs process.

SECTION IV: MSHCP RIPARIAN/RIVERINE REPORT

1.0) MSHCP Section 6.1.2

This section of the report is intended to address Section 6.1.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), covering riparian/riverine or vernal pool resources.

Section 6.1.2 of the MSHCP requires an assessment of potentially significant effects that a proposed project might have on riparian/riverine areas and vernal pools (as currently required by CEQA) using available information augmented by project-specific mapping. Riparian/Riverine areas and vernal pools are defined as follows:

- Riparian/Riverine Areas are lands that have flow for all or a portion of the year and 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.
- Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses, to which it has been subjected, and weather and hydrologic records.

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

2.0) Results

2.1) Riparian Habitat

The parcel was evaluated for the presence of woody water dependent vegetation (willow, mulefat, etc.) associated with a drainage feature, pond, or waterway. Woody riparian vegetation is present on the property. A small patch containing a single mature (but damaged and decaying) willow is present at the terminal end of the combined features. Located in this area are two (2) mature oaks and annual herbaceous vegetation.

MSHCP riparian area onsite is calculated to be 2,080 sf (0.05 acre, see Figure 7 and Table 1).

2.2) Riverine Habitat

L&L evaluated the parcel for the presence of discrete (individual, separate and distinct) flow lines where water is present for all or a portion of the year and that connect to downstream resources. There is currently no evidence that surface water leaves the property as a discrete flow confined to a discernable drainage. It appears that water is absorbed into the ground within or just below the riparian area, depending on the rain event.

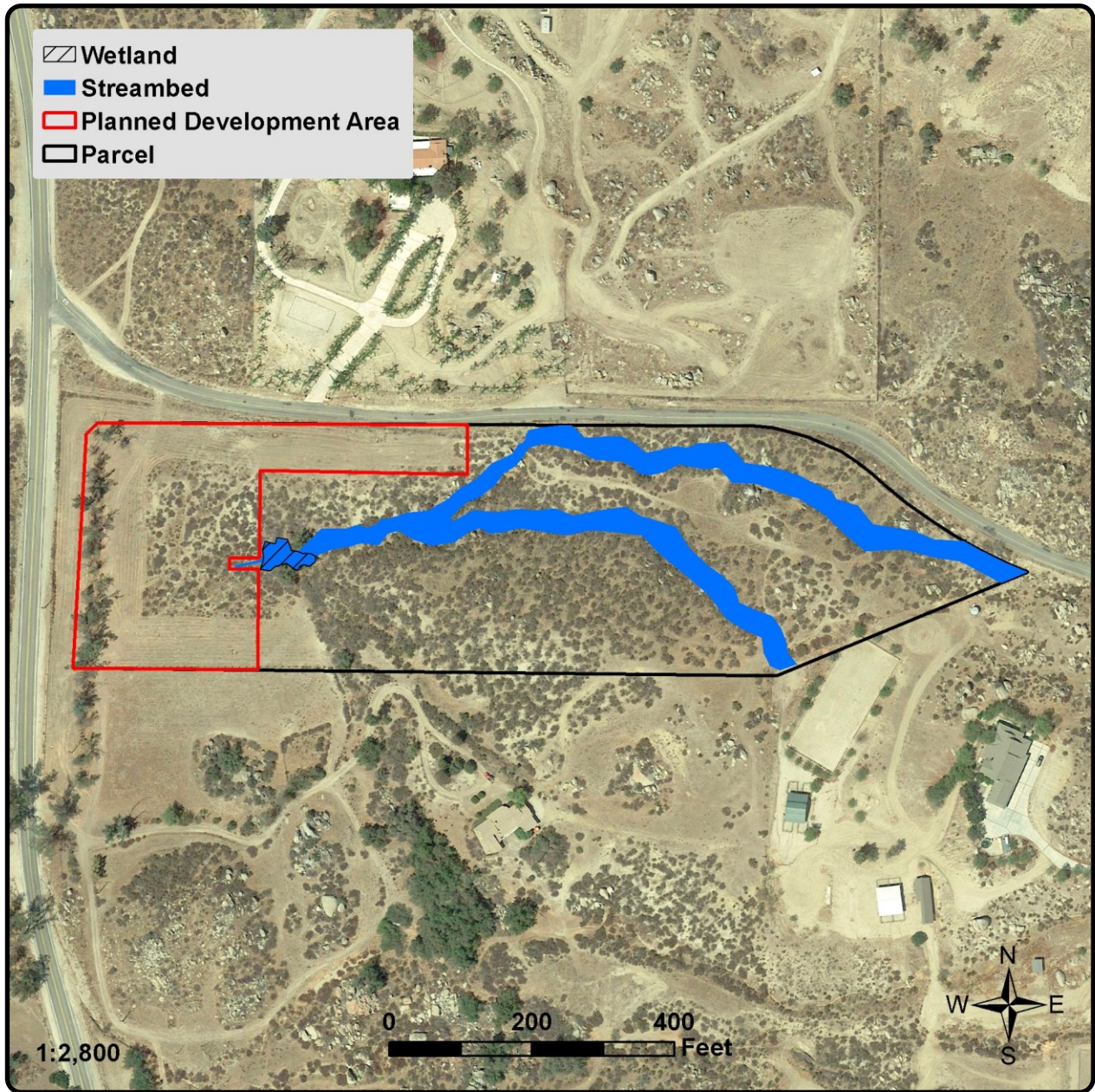
2.2.1) Riverine Feature #1

Riverine Feature #1 begins at the northeastern parcel boundary and roughly follows Minto Way, then merges with Riverine Feature #1a and ends just below a wetland that confines flow into a pipe. Thereafter, flow disappears into the sandy substrate. Riverine Feature #1 ranges in width between 1-9 feet, with cut vertical sidewalls that range in height from three (3) inches at trail crossing to as deep as four (4) feet within the steeper walled portions. The deepest cuts are within loamy soils, with annual grass cover where the shallowest cutting occurs near granite rock boulders that range in size between 3-12 feet in diameter.

Vegetation in the feature, outside of the wetland, is either annual grasses or chamise chaparral with occasional buckwheat.

2.2.2) Riverine Feature #1a

Riverine Feature #1a begins at a graded and disturbed area along the southeastern parcel boundary, just downhill from an adjacent ranch. Riverine Feature #1a flows west and then curves north to connect with Riverine Feature #1, just upstream of the riparian area.



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Figure 7

MSHCP Riparian/Riverine
(Aerial obtained from Google Earth, August 2018)

Sage Road & Minto Way, St. Johns Canyon
County of Riverside, California

Very similar to Riverine Feature #1, Riverine Feature #1a ranges in width between 1-12 feet, with cut vertical sidewalls that range in height between three (3) inches at trail crossings to as deep as six (6) feet within the steeper walled portions. The deepest cuts are within loamy soils, with annual grass cover and shallowest cutting occurring near granite rock boulders that range in size between 3-12 feet in diameter. The major difference between the features is that Riverine Feature #1a is a bit less arid, because it is located within a steeper more confined area that contains more granite boulders. It also has fewer hiking trails, but more apparent disturbance on the upper end adjacent to a graded driveway entrance and gate. Vegetation within the feature is either annual grasses or dense chamise chaparral, with occasional buckwheat.

Table 1. MSHCP Sec. 6.1.2 Habitat

Label	MSHCP (sq. ft.)	MSHCP (acres)	Riparian (acres)	Planned Impact (acres)
1	32,969	0.71	0.05	0.00
1a	19,384	0.44	0.00	0.00
Total	52,353	1.15	0.05	0.00

2.3) Vernal Pool Habitat

Vernal Pools and vernal pool habitat were not observed within the parcel and soil types are not consistent with an alkali playa or vernal pool complex and pools or depressions characteristic of vernal pool habitat are not present on the subject property. Vernal pools are defined as:

“ . . . seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.

2.4) Adjacent MSHCP Section 6.1.2 Habitat

During the course of our investigation L&L searched for evidence of adjacent habitat subject to MSHCP Section 6.1.2 that could be indirectly impacted by development of the parcel. Land along the western, northern, and eastern boundaries and portions of the southern boundary contains cleared areas, paved or unpaved roads, trails, driveways, or developed and ornamental vegetation. Only one (1) area of adjacent habitat was found, a small patch of contiguous chamise chaparral and buckwheat punctuated by a single overhanging mature oak. This vegetation is present on a downslope and contains mostly upland native species, with ornamental landscaped plantings. We did not find riparian/riverine habitat present along the boundary.

3.0) Conclusions and Recommendations

L&L found a total of 1.15 acres of riverine and 0.05 acre of riparian habitat present onsite that is subject to Section 6.1.2 of the MSHCP.

The project proposes to place the majority of the undisturbed land and all of the most valuable resources into conservation. A small portion of Riverine Feature #1 falls within the area of the parcel to be retained by the project proponent; however, this area will be avoided by the project design. As a result, this project would have long-term conservation value and has met and exceeded the minimization, avoidance, and preservation standard common in Riverside County.

A separate MSHCP Consistency Analysis has been prepared and concludes that the project is consistent with the MSHCP as written. This is because the land proposed for development is already mapped by the MSHCP baseline vegetation analysis as developed. Once reviewed and approved by Riverside County, the project should have no significant impact on biological resources.

Because the project will avoid or conserve all riparian/riverine resources onsite and no impacts to riparian/riverine resources is proposed, a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis is not required.

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APPENDIX A

Table 6. List of plant and wildlife species identified on APN 470-070-043. An asterisk (*) indicates non-native species.

<u>Scientific Name</u>	Plants	<u>Common Name</u>
Amaranthaceae <i>Amaranthus albus</i>		Pigweed Family Tumble Pigweed*
Anacardiaceae <i>Toxicodendron diversilobum</i>		Sumac Family Poison Oak
Asteraceae <i>Centaurea melitensis</i> <i>Deinandra fasciculata</i> <i>Encelia farinosa</i> <i>Erigeron canadensis</i> <i>Heterotheca grandiflora</i> <i>Lactuca serriola</i> <i>Stephanomeria</i> sp.		Sunflower Family Tocalote* Slender Tarweed Brittlebush Horseweed Telegraph Weed Prickly-lettuce* Unidentified Wreath Plant
Boraginaceae <i>Amsinckia menziesii</i> var. <i>intermedia</i>		Borage Family Fiddleneck
Brassicaceae <i>Hirschfeldia incana</i> <i>Sisymbrium irio</i>		Mustard Family Short-pod Mustard* London Rocket*
Cactaceae <i>Cylindropuntia californica</i>		Cactus Family Valley Cholla
Caprifoliaceae <i>Lonicera subspicata</i> <i>Sambucus nigra</i> ssp. <i>caerulea</i>		Honeysuckle Family Southern Honeysuckle Blue Elderberry
Chenopodiaceae <i>Chenopodium berlandieri</i> <i>Salsola tragus</i>		Goosefoot Family Pitseed Goosefoot Russian Thistle*
Cucurbitaceae <i>Marah macrocarpus</i>		Gourd Family Wild-cucumber
Ericaceae <i>Arctostaphylos</i> species (probably <i>glauca</i>)		Heath Family Unidentified Manzanita
Fabaceae <i>Acemisson glaber</i>		Pea Family Deerweed

Scientific Name

Plants (continued)

Common Name

Fagaceae

Quercus agrifolia
Quercus berberidifolia

Oak Family

Coast Live Oak
Scrub Oak

Hydrophyllaceae

Eriodictyon crassifolium
Phacelia sp. (*cicutaria*?)
Phacelia ramosissima

Waterleaf Family

Yerba Santa
Caterpillar Phacelia
Branching Phacelia

Lamiaceae

Salvia columbariae

Mint Family

Chia

Myrtaceae

Eucalyptus sp.

Myrtle Family

Gumtree*

Plantaginaceae

Plantago erecta

Plantain Family

Dot-seed Plantain

Poaceae

Avena barbata
Avena sp.
Bromus madritensis ssp. *rubens*
Bromus diandrus
Bromus hordeaceus
Festuca sp.
Leymus (Elymus) condensatus
Melica imperfecta
Schismus barbatus

Grass Family

Slender Wild Oat*
Wild Oat*
Foxtail Chess*
Ripgut Brome*
Soft Chess*
Fescue*
Giant Wild Rye
Common Melic
Mediterranean Grass

Polemoniaceae

Eriastrum sapphirinum

Phlox Family

Sapphire Woolstar

Polygonaceae

Eriogonum fasciculatum var. *foliolosum*
Eriogonum fasciculatum var. *polifolium*
Eriogonum gracile

Buckwheat Family

California Buckwheat (Green)
California Buckwheat (Gray)
Slender Buckwheat

Rhamnaceae

Rhamnus ilicifolia

Buckthorn Family

Hollyleaf Redberry

Rosaceae

Adenostoma fasciculatum

Rose Family

Chamise

Salicaceae

Salix laevigata

Willow Family

Red Willow

Scientific Name

Plants (continued)

Common Name

Scrophulariaceae

Keckiella antirrhinoides
Scrophularia californica

Figwort Family

Yellow Bush Penstemon
Coast Figwort

Solanaceae

Datura wrightii

Nightshade Family

Western Jimsonweed

Birds

Acciptiridae

Buteo jamaicensis

Hawk Family

Red-tail Hawk

Columbidae

Zenaida macroura

Pigeon Family

Mourning Dove

Corvidae

Aphelocoma californica
Corvus corax clarionensis

Jay and Crow Family

California Scrub Jay
Common Raven

Fringillidae

Carpodacus mexicanus

Finch Family

House Finch

Mimidae

Mimus polyglottos polyglottos

Mockingbird Family

Northern Mockingbird

Odontophoridae

Callipepla californica californica

Quail Family

California Quail

Passerellidae

Pipilo crissalis
Zonotrichia leucophrys

New World Sparrows

California Towhee
White-crowned Sparrow

Trochilidae

Calypte anna

Hummingbird Family

Anna's Hummingbird

Tyrannidae

Sayornis saya

Tyrant Flycatchers

Say's Phoebe

Mammals

Canidae

Canis latrans

Dog, Fox & Coyote Family

Coyote (sign)

Geomyidae

Thomomys bottae

Pocket Gopher Family

Botta's Pocket Gopher (sign)

Scientific Name

Mammals (continued)

Common Name

Leporidae
Sylvilagus audubonii

Rabbit Family
Desert Cottontail

Reptiles & Amphibians

Iguanidae
Uta stansburiana

Iguanid Family
Side-blotched Lizard

APPENDIX B

Certification

Certification: I hereby certify that the statements furnished above and in the attached exhibits present the 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.

DATE: April 22, 2020 SIGNED:



Leslie Irish, Principal, L&L Environmental, Inc.
909-335-9897

1) Fieldwork Performed By:

Guy Bruyey
Name

2) Fieldwork Performed By:

Leslie Irish
Name

3) Fieldwork Performed By:

Rachel Irish
Name

4) Fieldwork Performed By:

Name

5) Fieldwork Performed By:

Name

6) Fieldwork Performed By:

Name

Check here if adding any additional names/signatures below or on other side of page.

BIOLOGICAL REPORT SUMMARY SHEET

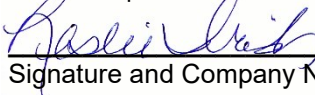
Applicant Name: <u>MMJ Construction, Inc.</u>
Assessor's Parcel Number(s): <u>470-070-043</u>
Section, Township and Range: <u>Section 13, Township 6 South, Range 1 West</u>
Building and Safety Log Number: _____
Case Number: <u>HAN190029</u> Lot/Parcel _____ EA Number _____

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	(Mark Yes, No, or N/A regarding species findings on the referenced site)		
		Yes	No	n/a
	Arroyo Southwestern Toad	Yes	No	n/a
X	Blueline Stream(s)	Yes	No	n/a
	Burrowing Owl	Yes	No	n/a
	Coachella Valley Fringed-toed Lizard	Yes	No	n/a
	Coastal California Gnatcatcher	Yes	No	n/a
X	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
X	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
	Stephens' Kangaroo Rat	Yes	No	n/a
X	Vernal Pools	Yes	No	n/a
X	Wetlands	Yes	No	n/a

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	(Mark Yes, No, or N/A regarding species findings on the referenced site)		
		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 (CNDDDB).

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 or habitat assessment.

 **L & L Environmental, Inc.**
 Signature and Company Name

April 22, 2020
 Date

10(a) Permit Number (if applicable)

Permit Expiration Date

<i>County Use Only</i>	
Received By: _____	Date: _____
PD-B# _____	

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
(Submit two copies to the County)

Case Number: HAN190029 Lot/Parcel No. _____ EA Number _____

Assessor's Parcel Number(s): 470-070-043

Date: April 22, 2020

Biological Resources: (Check the level of impact that applies to the following questions.)

Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
(Submit two copies to the County)

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 the U. S. Fish and Wildlife Service?

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 pools, coastal, etc.) through direct removal, filling, hydrological interruption)

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Findings of Fact:

Coastal sage scrub and coast live oak trees are present onsite, but will be avoided by the proposed development plan.

Potential nesting habitat for birds is present onsite.

Drainage features subject to the USACE, RWQCB, CDFW and MSHCP are present and are planned for avoidance or conservation via dedication to the RCA.

Proposed Mitigation:

Preconstruction clearance survey for raptors and other birds protected by the Migratory Bird Treaty Act within 7 days prior to initiation of site clearing (it to begin February 1-August 31).

Monitoring Recommended:

None.

Source: CGP Fig. VI.36-VI.40
Revised October 1999