

Full Biological Resources Report Over Alpine 21, APN 403-160-15 County of San Diego, California [PDS2005-3100-5431]

Prepared for:


The County of San Diego
Department of Planning and Development Services
5510 Overland Avenue
San Diego, CA 92123

Project Proponent:

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Mr. Dennis Carson
Alpine 21, LLC
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Revised 15 May 2020
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Glossary of Terms and Acronyms

ACOE	Army Corps of Engineers
BMO	The County of San Diego's Biological Mitigation Ordinance
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
EPA	Environmental Protection Agency
FWS	United States Fish and Wildlife Service
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Planning
RPO	The County of San Diego's Resource Protection Ordinance
RWCQB	Regional Water Quality Control Board

SUMMARY

The proposed Alpine 21 subdivision consists of Assessor's Parcel Number 403-160-15 in Alpine within the County of San Diego. The proposed project entails subdivision of the approximately 80.7-acre site into twenty single-family residential lots and open space. The project site is within the County's Multiple Species Conservation Program Subarea (MSCP) but is outside of the Pre-Approved Mitigation Area (PAMA). This Biological Technical Report is being prepared as supporting documentation to aid in the California Environmental Quality Act (CEQA) review process.

The property is currently occupied by five habitat types: Southern Mixed Chaparral, Coast Live Oak Woodland, Southern Coast Live Oak Riparian Forest, Open Water, and Urban/Developed land. As proposed, the project will permanently impact 0.22-acre of Urban/Developed land, 0.3-acre of Coast Live Oak Woodland, 0.3-acre of Southern Coast Live Oak Riparian Forest, and 38.4-acres of Southern Mixed Chaparral. In addition, 150-square feet of permanent impacts to waters of the U.S./waters of the state, and 1,800-square feet of temporary impacts to federal jurisdictional wetlands and waters of the state are proposed. Mitigation for the loss of 0.3-acre of Coast Live Oak Woodland will be mitigated by acquiring 0.3-acre of Tier I habitat off-site at Crestridge Conservation Bank or another suitable mitigation site within the MSCP. Mitigation for the loss of 0.3-acre of Southern Coast Live Oak Riparian Forest will be mitigated by creating/restoring 0.6-acre of Southern Coast Live Oak Riparian Forest habitat on-site. The 38.4-acres of Southern Mixed Chaparral impacts will be mitigated off-site at Crestridge Conservation Bank or another suitable mitigation site within the MSCP by acquiring Tier III habitat at a 0.5:1 mitigation ratio. The permanent and temporary impacts to jurisdictional wetlands, waters of the state, and waters of the U.S. will be mitigated at minimum of a 1:1 ratio by removing an existing earthen dam and recontouring the area to its pre-berm, natural flows. By purchasing these mitigation credits, and by removing the earthen dam and creating/restoring riparian habitat on-site, the potentially significant biological impacts will be mitigated to a less than significant level.

1.0 INTRODUCTION

1.1 Purpose of the Report

The purpose of this report is to document the biological resources on the project site, identify potential biological resource impacts resulting from the proposed subdivision, and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state and local rules and regulations, including the California Environmental Quality Act (CEQA), the Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act,(PCWQCA), the County of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan, the Biological Mitigation Ordinance (BMO), and the Resource Protection Ordinance (RPO).

1.2 Project Location and Description

The Alpine 21 project is located north of Interstate 8, in between East and West Victoria Drives in the Alpine community in unincorporated San Diego County (see Figures 1 and 2). This project falls under the purview of the Alpine Community Planning Group. The development plans for the property include a subdivision that would create twenty single-family residential lots on-site and widen and improve Country Meadows Road both on-site and off-site (see Figure 3 in the pocket and on the following page). Eleven of the lots (Lots 1 through 11) are proposed to be built in Phase I in the northern section of the site, and the remaining nine lots (Lots 12 through 20) are proposed to be built in Phase II in the southern portion of the property. Access to Lots 1 through 11 will be via the on-site extension of Country Meadows Road to a cul-de-sac. Access to Lots 12 through 20 will be via an internal private road, Chelsea Leigh Way, off of Country Meadows Road. The location of the new development will be adjacent to existing residential development on the north, east and west sides (see Figure 2).

There are three existing easements on the Alpine 21 property, and one proposed easement. There is an existing easement in the northeast corner of the site granted to the adjacent landowner for fuel modification per easement document #2005-0599481. Another 20-foot easement occurs along the southern property boundary per easement document #2008-0225640. A third easement is an existing private road and utility easement that overlaps the proposed Chelsea Leigh Way. Lastly, the proposed easement would be to the Padre Dam Municipal Water District for them to access the water line proposed to connect from the southeastern property boundary to the lower nine lots in Phase II (see Figure 3).

1.3 Survey Methods

Prior to the initiation of the field surveys on the Alpine 21 property, a search of the California Native Plant Society's on-line database and a search of the California Natural Diversity Database was conducted. A "hit list" of possible sensitive plant and wildlife species was generated so that the observer could focus the survey efforts to identify if those potential species occurred on-site. The generation of the plant list required an analysis of the underlying soils as mapped on the Preliminary Geologic Map of the El Cajon 30' x 60 Quadrangle (Todd, 2004) and on the Soil Survey of the San Diego Area (Bowman, 1973).

The general biological information was gathered on 19 February 2015, and 16 May 2016. Incidental observations made during other visits to the site in 2016 and 2017 were added to this data. A habitat assessment and host plant survey for the Quino Checkerspot Butterfly were conducted on 19 February 2015 and 25 February 2016, respectively. Suitable habitat does occur on-site and a focused, federal protocol Quino Checkerspot Butterfly survey was conducted per the Proposed 2016 Quino Checkerspot Survey Protocol (USFWS, 2016). Please refer to Appendix A attached to this report for the complete results of the Quino Checkerspot Butterfly survey.

During every visit by the undersigned, all sign (including track, scat, and others), direct observation, and auditory inputs (such as songs and calls) were utilized to identify the species present. Standard naming references are cited in Section 9.0 of this report. Plant species were generally identified in the field with some material being collected for laboratory identification. The observer for this project (G. Cummings) was equipped with Nikon N70 digital camera, and 8 x 42 binoculars. Wind, and air temperatures were measured with a Kestrel. With this instrument, it was possible to record wind speed to the nearest 0.1 mph, and temperature to the nearest 0.1°. There were no limitations to the surveys.

The details of the biological site visits to the Alpine 21 property are as follows:

Date	Purpose of Visit	Times of survey	Observer	Beginning of Observational Period			End of Observational Period		
				Wind	Air Temp	Cloud Cover	Wind	Air Temp	Cloud Cover
19 Feb 2015	General bio and Habitat Assessment for Quino	1100 to 1330 hours	G. Cummings	1.9 – 3.2 mph	76.3°F	70%	1.8 - 4.7 mph	77.2°F	70%
25 Feb 2016	Host Plant Mapping for Quino	1000 to 1245 hours	G. Cummings	1.0 - 4.4 mph	75.3°F	Clear	1.1 – 5.3 mph	84.7°F	Clear
27 Feb 2016	Quino #1	0915 to 1345 hours	G. Cummings	2.5 – 6.2 mph	71.7°F	Clear	2.4 – 5.0 mph	77.6°F	Clear
10 Mar 2016	Quino #2	1200 to 1600 hours	G. Cummings	1.0 – 4.4 mph with gusts to 7.0 mph	77.5°F	20%	< 4.2 mph	71.7°F	90%
17 Mar 2016	Quino #3	0930 to 1330 hours	G. Cummings	< 2.2 mph	73.1°F	Clear	< 2.7 mph	82.0°F	Clear
20 Mar 2016	Quino #4	1015 to 1415 hours	G. Cummings	< 2.1 mph	73.1°F	10%	< 3.0 mph	79.3°F	40%
25 Mar 2016	Quino #5	1315 to 1715 hours	G. Cummings	< 3.0 mph	77.9°F	30%	< 3.3 mph	74.9°F	10%

Date	Purpose of Visit	Times of survey	Observer	Beginning of Observational Period			End of Observational Period		
				Wind	Air Temp	Cloud Cover	Wind	Air Temp	Cloud Cover
5 Apr 2016	Quino #6	1045 to 1445 hours	G. Cummings	< 3.3 mph	77.4°F	100% high, thin clouds	< 5.2 mph	83.3°F	95% high, thin clouds
16 May 2016	General bio and Spring Plant Survey	1115 to 1430 hours	G. Cummings	< 2.3 mph	61.4°F	100%	< 1.5 mph	65.1°F	100%
18 Jan 2017	Wetland Delineation	1400 to 1645 hours	G. Cummings	< 4.4 mph	64.3°F	95%	< 5.2 mph	63.0°F	100%

1.4 Environmental Setting

The 80.7-acre Alpine 21 property is bounded by Interstate 8 along the southwestern edge, and by residential development to the north, west, and east. Land ownership adjacent to the parcel is private except for Interstate 8. The subject property contains a main, central drainage, and a smaller, southern drainage. Both the main drainage and the southern drainages flow from the eastern property boundary to the western property boundary. To the north of the main drainage are rocky slopes. In between the main and southern drainages is a ridgeline with scattered boulder outcrops. The climate in Alpine is fairly typical of the Mediterranean climate in southern California. Alpine is found in the foothills of southern California where average temperatures are warmer than those along the coast in the summer and cooler than those along the coast in the winter. Average rainfall in Alpine is between 10 to 15-inches. The main drainage flows seasonally when there are sufficient rains and, on certain years, a small pond fills with water at the western edge of the property off of the main drainage. The subdivision will be served by the Padre Dam Municipal Water District, not by wells.

The geological formation underlying the site is Tonalite of Alpine (Ka) - Todd, 2004. The overlying biological soils on the property are mapped as (Bowman, et al., 1973):

- Cieneba rocky coarse sandy loam, 9 - 30% slopes, eroded (CmE2) — these soils are found over a majority of the property.
- Cieneba-Fallbrook rocky sandy loams, 30 - 65% slopes, eroded (CnG2) — these soils are found in the extreme northern edge of the site and on the ridge between the main and southern drainages.

1.4.1 Regional Context

In California, there is a state-wide effort known as the Natural Community Conservation Planning (NCCP) program established to preserve ecosystems, while at the same time allowing for planned development. Locally, there are several jurisdictions that have established plans as part of the NCCP program. The County of San Diego is a participant in the local Multiple Species Conservation Program (MSCP) with an approved South County Subarea Plan. The Alpine 21 property falls within the approved MSCP South County Subarea Plan. Specifically, the parcel is mapped as “Unincorporated Land in Metro-Lakeside-Jamul Segment” outside of the Pre-Approved Mitigation Area (PAMA).

1.4.2 Habitat Types/Vegetation Communities

Vegetation mapping on the parcel consists of “Chaparral” and “Riparian Forest” per the County of San Diego Planning and Development Services GIS data. This mapping is consistent with the current conditions on-site as can be seen in Figures 2 and 3. The 80.7-acre Alpine 21 property contains approximately 1.1-acre of Urban/Developed land, 6.6-acres of Southern Coast Live Oak Riparian Forest, 0.8-acre of Coast Live Oak Woodland, 0.2-acre of Open Water, and 72.0-acres of Southern Mixed Chaparral (see Figure 3 in pocket and on the previous page 8). Generally, these habitats are relatively undisturbed with only a few foot trails. The Southern Coast Live Oak Riparian Forest occurs along the main and southern drainages with the Coast Live Oak Woodland in isolated patches on the upland slopes above the main drainage. The remaining areas are occupied by the Southern Mixed Chaparral.

Granitic Southern Mixed Chaparral (Holland Element Code 37121). Approximately 72.0-acres of Granitic Southern Mixed Chaparral (SMC) is located on the property. This habitat contains the following shrub species indicative of this habitat type:

Chamise	<i>Adenostoma fasciculatum</i>
Ramona Lilac	<i>Ceanothus tomentosus</i>
Buckbrush	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>
Toyon	<i>Heteromeles arbutifolia</i>
Laurel Sumac	<i>Malosma laurina</i>
Sugarbush	<i>Rhus ovata</i>

Granitic boulder outcrops are concentrated on the northern slopes within this habitat (see top photo of Figure 4). This habitat is considered a sensitive habitat by the County of San Diego and requires mitigation at a 0.5:1 ratio.

Southern Coast Live Oak Riparian Forest (Holland Element Code 61310). Approximately 6.6-acres of this habitat occur along the southern and main drainages (see bottom photo of Figure 4). This habitat is dominated by Coast Live Oak trees (*Quercus agrifolia*) with scattered Western Sycamore trees (*Platanus racemosa*), Fremont Cottonwood trees (*Populus fremontii* ssp. *fremontii*), Goodding’s Black and Arroyo Willows (*Salix gooddingii*) and (*Salix lasiolepis*), and

Blue Elderberry (*Sambucus nigra* ssp. *caerulea*). This habitat is considered a sensitive habitat by the County and by the California Department of Fish and Wildlife and requires mitigation at a 1:1 ratio for creation for “no net loss” of wetlands.

Coast Live Oak Woodland (Holland Element Code 71160). Two small patches of Coast Live Oak Woodland encompass approximately 0.8-acre on the Alpine 21 property. These patches of habitat are isolated from the Southern Coast Live Oak Riparian Forest and are located in the uplands. This habitat is considered a sensitive habitat by the County and by the California Department of Fish and Wildlife and requires mitigation at a 1:1 ratio by the BMO.

Open Water (Holland Element Code 64100). Along the western edge of the central drainage, water occasionally ponds. When full, the open water occupies 0.2-acre. This habitat is considered a sensitive habitat by the County and by the California Department of Fish and Wildlife and requires mitigation at a minimum of a 1:1 ratio.

Urban/Developed Land (Holland Element Code 12000). There is 1.1-acre of what is best classified as Urban/Developed land on-site. These areas are adjacent to existing residences and include areas of fuel modification. This habitat is not considered a sensitive habitat by the County and does not require any mitigation.

1.4.3 Flora

One hundred and eleven plant species were identified on the Alpine 21 property (please see the attached Table 1). Of the one hundred and eleven species, only seventeen of them are non-native species. The remaining ninety-four are native species.

1.4.4 Fauna

Generally, the types and diversity of wildlife encountered on the Alpine 21 property were those to be expected given the large area of relatively undisturbed habitats. Twenty-six insects, five reptiles, four mammal species, and twenty-five bird species were noted on the property and in the vicinity (please refer to the attached Table 2 for a complete list of wildlife species observed on-site). Of the four mammal species seen, only one was a large mammal. Coyotes (*Canis latrans*) were heard in the central drainage and their tracks were noted along the trails. The three other mammals seen on-site were the Audubon’s Cottontail (*Sylvilagus audubonii*), California Ground Squirrel (*Spermophilus beecheyi*), and Dusky-footed Woodrat (*Neotoma fuscipes*). These smaller mammals are potential prey for the Coyotes on-site.

1.4.5 Sensitive Plant Species

One principal goal of the biological survey was to determine the presence or absence of sensitive plant species. A spring plant survey was conducted on 16 May 2016. Prior to initiation of the field work in 2016, a search was made of the on-line California Native Plant Society (CNPS) Rare and Endangered Plant Inventory to determine those plant species considered sensitive and

known to occur within an approximately 10-mile radius of the subject property. The CNPS was accessed again in 2017 to update the list. This search resulted in a list of one hundred and five species (CNPS, 2017). This list was then augmented with three plants from a nine-quad search of the California Natural Diversity Database (CNDDB) (CDFW, 2017a). This revised list of one hundred and eight plant species is presented as Table 3 (the reader's attention is directed to that table for additional information). Each entry in the table has been annotated as to the potential occurrence on site, given the habitats present, specific soil requirements, elevational limits, etc. Of the one hundred and eight species, five were found. Seventy-one species are unlikely, fourteen have a low potential to be found on-site, seven have a medium potential, and eleven have a high potential. The five species that were found are detailed in the paragraphs below.

Engelmann Oak (*Quercus engelmannii*). The Engelmann Oak is a perennial deciduous tree found in Chaparral, Cismontane Woodland, Riparian Woodland, and Valley and Foothill Grassland habitats at elevations of 164 - 4,277 feet. This tree is classified by the CNPS as having a Rare Plant Rank of 4.2 which means that this plant has a limited distribution and is on a "watch list". This plant is fairly threatened in California with 20-80% of the occurrences having a moderate degree and immediacy of threat. According to California's CNDDB ranking system, the Engelmann Oak has a state rank of S3 which means that it is vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County of San Diego places this species on the County of San Diego Sensitive Plant List D. List D plants are those with a limited distribution and are uncommon, but not presently rare or endangered. This species was detected within the Southern Coast Live Oak Riparian Forest and, to a lesser extent, in the Southern Mixed Chaparral.

San Diego Sagewort (*Artemisia palmeri*). The San Diego Sagewort is a perennial deciduous shrub found primarily along creeks and drainages on sandy soils within Chaparral, Coastal Scrub, and riparian habitats at elevations of 49 - 3,011 feet. This plant is classified by the CNPS as having a Rare Plant Rank of 4.2 which means that this plant has a limited distribution and is on a "watch list". This plant is fairly threatened in California with 20-80% of the occurrences having a moderate degree and immediacy of threat. According to California's CNDDB ranking system, the San Diego Sagewort has a state rank of S3? which means that it is vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County of San Diego places this species on the County of San Diego Sensitive Plant List D. List D plants are those with a limited distribution and are uncommon, but not presently rare or endangered. On-site, approximately 70 plants were observed along the western edge of the central drainage (see Figure 3). These plants will be protected in Open Space.

Chaparral Rein-Orchid (*Piperia cooperi*). The Chaparral Rein-Orchid is a perennial herb found in Chaparral, Cismontane Woodland, and Valley and Foothill Grassland habitats at elevations of 49 - 5,215 feet. This plant is classified by the CNPS as having a Rare Plant Rank of 4.3 which means that this plant has a limited distribution and is on a "watch list". This plant is not very threatened in California with < 20% of the occurrences being threatened/having a low

degree and immediacy of threat, or no current threats are known. According to California's CNDDDB ranking system, the Chaparral Rein-Orchid has a state rank of S3 which means that it is vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County of San Diego places this species on the County of San Diego Sensitive Plant List D. List D plants are those with a limited distribution and are uncommon, but not presently rare or endangered. During a previous biological study by RC Biological Consulting, Inc. in March 2007, a single Chaparral Rein-Orchid was found in the southern portion of the site (see Figure 3). This plant was searched for during the 2016 field effort but was not refound. If this plant still occurs on-site, its previously mapped location will be protected in Open Space.

Palmer's Grappling Hook (*Harpagonella palmeri*). The Palmer's Grappling Hook is an annual herb found in Chaparral, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 65 - 3,142 feet. This plant is classified by the CNPS as having a Rare Plant Rank of 4.2 which means that this plant has a limited distribution and is on a "watch list". This plant is fairly threatened in California with 20-80% of the occurrences having a moderate degree and immediacy of threat. According to California's CNDDDB ranking system, the Palmer's Grappling Hook has a state rank of S3 which means that it is vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County of San Diego places this species on the County of San Diego Sensitive Plant List D. List D plants are those with a limited distribution and are uncommon, but not presently rare or endangered. On-site, approximately 1,000 plants were observed along the western property boundary just north of the central drainage (see Figure 3). These plants will be protected in Open Space.

Fish's Milkwort (*Polygala cornuta* var. *fishiae*). The Fish's Milkwort is a perennial deciduous shrub found in Chaparral, Riparian Woodland or Cismontane Woodland habitats with Coast Like Oaks at elevations of 329 - 3,290 feet. This plant is classified by the CNPS as having a Rare Plant Rank of 4.3 which means that this plant has a limited distribution and is on a "watch list". This plant is not very threatened in California with < 20% of the occurrences being threatened/having a low degree and immediacy of threat, or no current threats are known. According to California's CNDDDB ranking system, the Fish's Milkwort has a state rank of S4 which means that it is apparently secure as it is uncommon, but not rare. There is some cause for long-term concern due to declines or other factors. The County of San Diego places this species on the County of San Diego Sensitive Plant List D. List D plants are those with a limited distribution and are uncommon, but not presently rare or endangered. During a previous biological study by RC Biological Consulting, Inc. in March 2007, five Fish's Milkwort were found on the western side of the property, just south of the central drainage (see Figure 3). These shrubs were searched for during the 2016 field effort but were not refound (this is probably due to the dense, impenetrable Poison Oak in this area). If this plant still occurs on-site, its previously mapped location will be protected in Open Space.

1.4.6 Sensitive Wildlife Species

Another goal of the biological survey effort was to identify any sensitive wildlife species that occur on, or in the immediate vicinity of, the Alpine 21 property. A list of fifty-five sensitive species known to occur within a ten-mile radius of the subject property was generated from a nine-quad search of the CNDDDB (CDFW, 2017a). This list was augmented with five sensitive species from the County of San Diego's sensitive wildlife list. The revised list of sixty species is found as Table 4 (the reader's attention is directed to that table for additional information). Of the sixty species, six were found. These six species were the Orange-throated Whiptail, Coastal Western Whiptail, San Diego Horned Lizard, Cooper's Hawk, Rufous-crowned Sparrow, and the Western Bluebird (see Figure 3 for the locations of these observations). One other species required a focused survey but was not found; the Quino Checkerspot Butterfly.

Quino Checkerspot Butterfly (*Euphydryas editha quino*). The Quino Checkerspot is listed as a federally endangered subspecies under the Endangered Species Act. It is considered a Group 1 species on the County's Sensitive Animal List, and the Xerces Society defines this butterfly as critically imperiled. A federal protocol survey for this species was conducted during the 2016 flight season per the Proposed 2016 Quino Checkerspot Survey Protocol (USFWS, 2016) with negative results.

1.4.7 Wetlands/Jurisdictional Waters

The Alpine 21 property was inspected for any water features that would be considered jurisdictional under the County of San Diego's Resource Protection Ordinance (RPO), or jurisdictional to the Army Corps of Engineers (ACOE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW).

The County of San Diego RPO defines what is and what is not a wetland:

“(1) Lands having one or more of the following attributes are ‘wetlands’:

- (aa). At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
- (bb). The substratum is predominantly undrained hydric soil; or
- (cc). An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

(2) Notwithstanding paragraph (1) above, the following shall not be considered ‘Wetlands’:

(aa) Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g. culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they:

- (I) Have negligible biological function or value as wetlands;
- (ii) Are small and geographically isolated from other wetland systems;
- (iii) Are not Vernal Pools; and
- (iv) Do not have substantial or locally important populations of wetland dependent sensitive species.

(bb) Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Land Use:

- (I) Have negligible biological function or value as wetlands even if restored to the extent feasible; and,
- (ii) Do not have substantial or locally important populations of wetland dependent sensitive species. ”

For the purposes of federal regulatory programs, federal wetlands are defined as areas meeting all three of the following criteria:

1. A predominance of hydrophytic vegetation; and
2. Sufficient hydrology (or water flow) such that there is an anaerobic growing condition in the soil for at least one week during the growing season; and
3. A predominance of hydric soils.

In addition to federal wetlands, “waters of the U.S.” are also protected under the Clean Water Act. In non-tidal situations, “waters of the U.S.” are delineated by the Ordinary High Water Mark (OHWM) which is defined as, “. the line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation or presence of litter and debris. .”

For CDFW and RWQCB purposes, the definition of a wetland is defined by the occurrence of at least one of the following three attributes: 1) at least periodically, the land supports hydrophytes,

2) the substrate is predominantly undrained hydric soil, and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year. Also, CDFW (at least the staff members at the San Diego office) and RWQCB utilize the Ordinary High Water Mark (OHWM) as an indication of waters of the state.

Based upon the 2017 field efforts, there are two RPO wetlands and jurisdictional wetlands, waters of the state, and waters of the U.S. within the bounds of the Alpine 21 project. The central drainage contains federal jurisdictional wetlands, CDFW and RPO wetlands indicated by the presence of all three indicators; hydrology, hydric soil and hydrophytic vegetation. The southern drainage contains waters of the U.S./waters of the state. An RPO wetland buffer distance of 50-feet is proposed for these two RPO wetlands. In some areas, the wetland buffer distance is > 50-feet. Per the County's RPO, "Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate. . . ." A 50-foot buffer is deemed appropriate in this case as these RPO wetlands are not within the PAMA and are not considered to meet the criteria of a BRCA. The RPO wetlands occur on an undeveloped property in an otherwise developed neighborhood. Interstate 8 is located to the south, and residential development surrounds the property. The RPO drainages contain an Ordinary High Water Mark in the bottom of the drainage channel and the adjacent banks are occupied with Coast Live Oak Riparian Forest or Granitic Southern Mixed Chaparral.

1.4.8 Habitat Connectivity and Wildlife Corridors

The subject property is not within the PAMA, and there are no habitat corridors connecting off-site. As can be seen in Figure 2, the Alpine 21 project is a rectangular-shaped property with a series of east-west drainages and ridges. Wildlife is anticipated to move through the drainages on-site where there is water and riparian canopy cover. These species have nowhere to go off-site though. To the south and west is Interstate 8, and to the east is a small drainage that is surrounded by residences. This effectively makes the property an isolated habitat patch with no pass-through connectivity or corridors.

1.5 Applicable Regulations

There are several regulations that apply to the Alpine 21 project in terms of biological resources. These regulations include the Migratory Bird Treaty Act (federal), the Clean Water Act (federal), the Porter-Cologne Water Quality Control Act (state), the California Environmental Quality Act (state), the California Fish and Game Code (state), the Natural Community Conservation Planning Act (state), the Multiple Species Conservation Program (County), the Resource Protection Ordinance (County), and the Biological Mitigation Ordinance (County).

2.0 Project Effects

The specific design of the Alpine 21 project has potentially significant direct biological effects to Southern Mixed Chaparral, Coast Live Oak Woodland, and Coast Live Oak Riparian Forest habitats. Below is a table detailing the habitat/vegetation communities, the existing acreage

amounts, the proposed impacts, and the proposed impact neutral areas (also please see Figure 3 for the Vegetation Map).

Habitat/Vegetation Communities and Impact Summary

Habitat/Vegetation Community	Existing Acreage On-site	Acres Impacted On-site¹	Acres Impact Neutral²	Acres Used for On-site Mitigation³
Granitic Southern Mixed Chaparral (Element Code 37121)	72.0	38.40	33.45	0.15
Coast Live Oak Woodland (Element Code 71160)	0.8	0.30	0.5	None
Southern Coast Live Oak Riparian Forest (Element Code 61310)	6.6	0.30	6.3	None
Open Water (Element Code 64100)	0.2	None	None	0.2
Urban/Developed (Element Code 12000)	1.1	0.22	0.63	0.25
TOTAL:	80.7	39.22	40.88	0.6

¹ Calculated impacts include those due to grading, tree wells, the water easement, and fuel modification. For the Southern Mixed Chaparral, the 0.02-acre of temporary impacts caused by accessing the mitigation area for restoration work have been included.

^{2,3} The majority of the on-site Open Space is not counted towards mitigation or counted as impacts, it is considered impact neutral. The only exception to this is the 0.6-acre area along the western property boundary being used to mitigate for impacts to wetlands, waters of the state, waters of the U.S., and Southern Coast Live Oak Riparian Forest. The area containing the Open Water will be recontoured to create natural flows thereby removing the Open Water created by the unnatural berm, and replacing it with Southern Coast Live Oak Riparian Forest.

3.0 Special Status Species

This section pertains to the determination of significant impacts, as a result of the project, to species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service.

3.1 Guidelines for the Determination of Significance

Any of the following conditions would be considered significant:

- A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
- B. The project would impact the survival of a local population of a County Group A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern.
- C. The project would impact the regional long-term survival of a County Group C or D plant species or a County Group 2 animal species.
- D. The project may impact arroyo toad aestivation or breeding habitat.
- E. The project would impact golden eagle habitat.
- F. The project would result in a loss of functional foraging habitat for raptors.
- G. The project would increase noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
- H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.
- I. The project would increase human access or predation or competition from domestic animals, pests or exotic species to levels that would adversely affect sensitive species.
- J. The project would impact the nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification and/or noise generating activities such as construction.

3.2 Analysis of Project Effects

The proposed project will not result in significant impacts to sensitive species under the Guidelines in Section 3.1 for the Determination of Significance for the following reasons:

- 3.1.A No federal or state listed threatened or endangered species were noted on-site.
- 3.1.B No Group A or B sensitive plant species were noted during the surveys. The two County Group 1 animal species detected on-site were the Cooper's Hawk and Rufous-crowned Sparrow. The Cooper's Hawk was seen overflying the property, and only one Rufous-crowned Sparrow was detected on-site. As such, the project would not impact the survival of a local population of a County Group A or B plant species, or a County Group 1 animal species.
- 3.1.C All five of the sensitive plant species found during the surveys are County Group D sensitive plant species (San Diego Sagewort, Palmer's Grappling Hook, Chaparral Rein-Orchid, Fish's Milkwort, and Engelmann Oak). Four of these five species will be completely protected in Open Space. The Engelmann Oak occurs occasionally within the Coast Live Oak Woodland and Southern Coast Live Oak Riparian Forest habitats. Half of the Coast Live Oak Woodland (0.30-acre) will be impacted by the project and 0.3-acre of Southern Coast Live Oak Riparian Forest will be impacted. The remaining 6.3-acres of Southern Coast Live Oak

Riparian Forest will be protected in Open Space. Four County Group 2 animal species were detected on-site (Orange-throated Whiptail, Coastal Western Whiptail, San Diego Horned Lizard, and Western Bluebird). The Western Bluebird was noted as an overflight of the property. The three lizard species occur in small numbers on-site. As such, the project would not impact the regional long-term survival of a County Group C or D plant species or a County Group 2 animal species.

- 3.1.D The project site does not contain breeding habitat suitable for the Arroyo Toad.
- 3.1.E There are no suitable Golden Eagle nest sites on the property. The closest CNDDDB record of a Golden Eagle nest is 6.2-miles to the northwest just northwest of El Capitan Reservoir (CDFW, 2017a).
- 3.1.F The only raptor noted on the property was a Cooper's Hawk. During two of the visits, a single individual was seen overflying the site. As such, this mostly Chaparral-covered property does not seem to function as foraging habitat for raptors.
- 3.1.G Lighting will be shielded away from the Open Space areas by requiring downward shielded light fixtures in the backyards that comply with the Palomar Dark Sky Policy. This requirement shall be included on the plans. Increased noise will occur with the addition of twenty residences. However, Interstate 8 already generates high ambient noise levels.
- 3.1.H The 80.7-acre property is located just north of Interstate 8 and is basically an island of habitat in an otherwise suburban setting.
- 3.1.I Six sensitive wildlife species were noted during the field surveys. These six species were the Orange-throated Whiptail, Coastal Western Whiptail, San Diego Horned Lizard, Cooper's Hawk, Rufous-crowned Sparrow, and the Western Bluebird. While the project will introduce more humans and domestic pets to the area, the property is surrounded on three sides by suburban development and by Interstate 8 on the fourth side. Domestic predators, such as dogs, were already noted on-site during the surveys. It is anticipated that the addition of twenty residences will increase the number of domestic pets, but the backyards will all be fenced limiting the intrusion into the adjacent Open Space areas.
- 3.1.J. Three sensitive bird species were noted during the field survey. These three species were the Cooper's Hawk, Rufous-crowned Sparrow, and Western Bluebird. The Cooper's Hawk and Western Bluebird were noted as overflights, and only one individual Rufous-crowned Sparrow was observed on-site. Avian breeding season avoidance for vegetation clearing will be proposed. As such, the project would not impact the nesting success of these sensitive animals.

3.3 Cumulative Impact Analysis

California Environmental Quality Act (CEQA) Guidelines Section 15183 allows a streamlined environmental review process for projects that are consistent with the densities established by existing zoning, community plan or general plan policies for which an Environmental Impact

Report (EIR) was certified. The County of San Diego certified an EIR for the General Plan Update on August 3, 2011. Since 1) this project is consistent with the development density established by the General Plan Update EIR, 2) there are no project specific effects which are peculiar to the project or its site, 3) there are no project specific impacts which the General Plan Update EIR failed to analyze as significant effects, 4) there are no potential significant off-site and/or cumulative impacts which the General Plan Update EIR failed to evaluate, and 5) there is no substantial new information which results in more severe impacts than anticipated by the General Plan Update EIR, then this project qualifies for the CEQA Section 15183 exemption. Therefore, there will be no additional cumulative effects as long as the Alpine 21 project provides appropriate habitat mitigation and implements avian breeding season avoidance mitigation measures as outlined in this report.

3.4 Mitigation Measures and Design Considerations

The following mitigation measures will be implemented:

1. The preferred approach to site development would be for no grading, grubbing or clearing of vegetation to occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall include such statement. If grubbing or clearing must occur during the general avian breeding season within 300 feet of general nesting bird habitat, a pre-construction survey shall be conducted by a qualified biologist no more than three days prior to the commencement of the activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/ nesting behavior) within this area, with results submitted to the County and Wildlife Agencies for review, clearing and grubbing shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted, with results submitted to the County and Wildlife Agencies for review. If active nests or nesting birds are observed within the area, the biologist shall submit the nesting bird survey results and proposed buffers to the County and Wildlife Agencies for review and will be required to receive written approval from the County regarding proposed buffers, prior to work proceeding. The biologist shall then flag buffers around the active nests and construction activities shall avoid active nest buffers until nesting behavior has ceased, nests have failed, or young have fledged, with results submitted to the County and Wildlife Agencies.
2. During construction, no activity shall occur within 500-feet of active raptor nests. All grading permits, improvement plans and the final map will include such statement. If grubbing, clearing or grading is proposed during the raptor breeding season (January 15 to July 15), a pre-grading nesting raptor survey will be conducted within three days prior to clearing to determine if raptors occur within

500-feet of the areas proposed to be directly impacted by grading, grubbing, or clearing, or indirectly impacted by noise. If there are no raptors nesting within 500-feet (includes nest building or other breeding/nesting behavior), development will be allowed to proceed upon approval of the Director of PDS with concurrence from USFWS and CDFW. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction will be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after July 15; or (2) a temporary noise barrier or berm is constructed at the edge of the development footprint to reduce noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ), to the satisfaction of the Director of PDS with concurrence from USFWS and CDFW. Alternatively, if approved by the Director of PDS with concurrence from USFWS and CDFW, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ) in lieu of or in concert with a wall or other sound attenuation barrier.

3.5 Conclusions

By implementing the two mitigation measures outlined in Section 3.4 above, the potentially significant impacts will be mitigated to a less than significant level.

4.0 Riparian Habitat or Sensitive Natural Community

This section pertains to the determination of significant impacts, as a result of the project, to riparian habitat or a sensitive natural community. Jurisdictional federal wetlands are discussed in Section 5.0 below.

4.1 Guidelines for the Determination of Significance

Any of the following conditions would be considered significant:

- A. Project-related construction, grading, clearing, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5 of the County Guidelines for Determining Significance) on or off the project site.
- B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFW and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.

- C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.
- D. The project would increase human access or competition from domestic animals, pests or exotic species to levels proven to adversely affect sensitive habitats.
- E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

4.2 Analysis of Project Effects

The potentially significant effects to riparian or other sensitive habitat per the Guidelines in Section 4.1 above are analyzed below:

- 4.1.A Under Section 4.1.A, the proposed project will permanently impact 0.3-acre of Coast Live Oak Woodland, 0.3-acre of Southern Coast Live Oak Riparian Forest, and 38.4-acres of Southern Mixed Chaparral, but these impacts will be mitigated by acquiring 0.3-acre of Tier I habitat and 19.2-acres of Tier III habitat at Crestridge Conservation Bank or another suitable mitigation site within the MSCP, and by creating/restoring 0.6-acre of Southern Coast Live Oak Riparian Forest on-site. The 0.02-acre of temporary impacts to Southern Mixed Chaparral will be restored after completion of the restoration work in the on-site mitigation area. In an effort to minimize disturbances to the open space areas on-site, signs will be installed around both the open space areas not being used for on-site mitigation (see Figure 5) and around the wetland creation/restoration area that is being used as on-site mitigation (Figure 6).
- 4.1.B The subdivision of the property will result in permanent impacts to approximately 150-square feet of waters of the U.S./waters of the state, and approximately 1,800-square feet of temporary impacts federal wetlands/waters of the state. Approximately 0.3-acre of CDFW and RPO wetlands classified as Southern Coast Live Oak Riparian Forest will be permanently impacted. These impacts will be mitigated on-site through the creation of 0.6-acre of Southern Coast Live Oak Riparian Forest, and by the removal of an earthen dam and restoration of the natural drainage flows in this area.
- 4.1.C The project will be serviced by the Padre Dam Water District, not by wells.
- 4.1.D Domestic pets, such as dogs, were already noted on-site. It is anticipated that the addition of twenty residences will increase the number of domestic pets, but the backyards will all be fenced limiting the intrusion into the adjacent open areas.
- 4.1.E. There is a 50-foot wetland buffer proposed around the two RPO wetlands that extends from the furthest edge of the delineated wetland (typically from the riparian canopy driplines). A 50-foot buffer is appropriate for this project as the site is not located within the PAMA and does not meet the criteria for a BRCA.

4.3 Cumulative Impact Analysis

Since the Alpine 21 project is proposing to acquire 0.3-acre of Tier I habitat and 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP for permanent impacts to 0.3-acre of Coast Live Oak Woodland and 38.4-acres of Southern Mixed Chaparral, respectively, and is also proposing to create 0.6-acre of Southern Coast Live Oak Riparian Forest habitat on-site for the impacts to 0.3-acre of Southern Coast Live Oak Riparian Forest, then the project's contribution to a cumulative impact on these habitats will be less than cumulatively considerable. The impacts to wetlands, waters of the state, waters of the U.S., and Southern Coast Live Oak Riparian Forest will be mitigated on-site by the removal of an earthen dam, recontouring of the ponded area created by the dam, and restoration/creation of Southern Coast Live Oak Riparian Forest. These impacts will be mitigated at a minimum of a 1:1 ratio to ensure "no net loss".

4.4 Mitigation Measures and Design Considerations

The following mitigation measure will be implemented to mitigate the potentially significant impacts to the natural upland and wetlands habitats to a less than significant level:

3. Mitigation for the loss of 0.3-acre of Coast Live Oak Woodland and 0.3-acre of Southern Coast Live Oak Riparian Forest will be mitigated through the acquisition of 0.3-acre of Tier I habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP and the creation of 0.6-acre of Southern Coast Live Oak Riparian Forest habitat on-site. The perimeter of this 0.6-acre area, as well as other open space areas not being used for on-site mitigation will be marked with signs to indicate the areas are protected open space (see Figures 5 and 6). Mitigation for the permanent loss of 38.4-acres of Southern Mixed Chaparral will be mitigated through the acquisition of 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP. Mitigation for the combined permanent and temporary loss of 0.04-acre of wetlands, waters of the state, and waters of the U.S. will be mitigated by removing an earthen dam and restoring the natural flow to the on-site drainage. Temporary impacts to 0.02-acre of Southern Mixed Chaparral will be mitigated on-site by restoring this habitat after machine access to the mitigation area is complete.

4.5 Conclusions

The potentially significant impacts resulting from the permanent loss of 38.4-acres of Southern Mixed Chaparral, 0.3-acre of Southern Coast Live Oak Riparian Forest, 0.3-acre of Coast Live Oak Woodland, 150-square feet of waters of the U.S., and temporary impacts to 0.02-acre of Southern Mixed Chaparral and 1,800-square feet of waters of the state and waters of the U.S. will be mitigated to a less than significant level by acquiring 0.3-acre of Tier I habitat and 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site, by creating 0.6-acre of Southern Coast Live Oak Riparian Forest on-site, by restoring the 0.02-acre

of Southern Mixed Chaparral on-site, and by removing an on-site, existing earthen dam and restoring the natural flows to the drainages in this area. The perimeter of this 0.6-acre creation/restoration area, as well as other open space areas not being used for on-site mitigation, will be marked with signs to indicate that the areas are protected open space (see Figures 5 and 6 for locations of signs).

5.0 Jurisdictional Wetland and Waterways

Per the 2017 results, there are two jurisdictional wetlands, waters of the state, and waters of the U.S. within the bounds of the Alpine 21 project. There will be 0.04-acre of combined temporary and permanent impacts to these jurisdictional wetlands and waters resulting from the construction of Chelsea Leigh Way and the installation of the water line from the southeast corner of the site. The remainder of these jurisdictional wetlands and waters will be protected in open space. In addition, there will be a wildlife underpass created along the proposed Chelsea Leigh Way access road. This underpass will consist of an earthen bottom and an arch pipe culvert providing approximately 6-foot of clearance for passage of wildlife. Larger wildlife, such as Mule Deer and Coyotes, as well as small animals, such as Racoons and Opossum, are anticipated to utilize this underpass.

5.1 Guidelines for the Determination of Significance

The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means because only 150-square feet of permanent impacts to waters of the U.S. /waters of the state, and 1,800-square feet of temporary impacts to jurisdictional wetlands/waters of the state are proposed by the subdivision.

5.2 Analysis of Project Effects

Although the permanent and temporary impacts to wetlands, waters of the state, and waters of the U.S, are small (only 0.04-acre combined), mitigation will be required at a minimum of a 1:1 ratio, and permits from the ACOE, RWQCB and CDFW will be necessary. The 1:1 ratio ensures that there will be “no net loss”.

5.3 Cumulative Impact Analysis

Since the impacts to jurisdictional wetlands, waters of the state and waters of the U.S. will be mitigated at a minimum of a 1:1 ratio by removing an earthen dam and restoring the natural flows of the drainages in that area, there will be “no net loss” and no cumulative impacts.

5.4 Mitigation Measures and Design Considerations

4. Permanent impacts to 150-square feet of waters of the U.S./waters of the state, and temporary impacts to 1,800-square feet of wetlands/waters of the state will be mitigated at a minimum of a 1:1 ratio by removing an existing earthen dam and recontouring the area to its pre-berm, natural flows.

5.5 Conclusions

The 150-square feet of waters of the U.S./waters of the state, and 1,800-square feet of wetlands/waters of the state will be mitigated to a less than significant level by removing an existing earthen dam and recontouring the area to its pre-berm, natural flows at a minimum of a 1:1 ratio.

6.0 Wildlife Movement and Nursery Sites

This section pertains to the determination of significant impacts, as a result of the project, to wildlife movement and nursery sites.

6.1 Guidelines for the Determination of Significance

Any of the following conditions would be considered significant:

- A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B. The project would substantially interfere with connectivity between blocks of habitat or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.
- C. The project would create artificial wildlife corridors that do not follow natural movement patterns.
- D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
- E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.
- F. The project does not maintain adequate visual continuity (i.e. long lines-of-site) within wildlife corridors or linkages.

6.2 Analysis of Project Effects

The Alpine 21 project is a rectangular-shaped property with a series of east-west drainages and ridges. Wildlife is anticipated to move within the drainages on-site where there is water and riparian canopy cover. These species have nowhere to go off-site though. To the south and west is Interstate 8, and to the east is a small drainage that is surrounded by residences. This effectively makes the property an isolated habitat block with no pass-through connectivity or corridors.

The potential impacts to wildlife movement per the Guidelines in Section 6.1 above are analyzed below.

- 6.1.A Wildlife is anticipated to move within the drainages on-site where there is water and riparian canopy cover. These drainages have been avoided except for two crossings. One of these crossings has been designed with an earthen bottom and arch culvert specifically to promote wildlife movement under the crossing.
- 6.1.B The current design of the Alpine 21 project does not interfere with the wildlife movement, as wildlife is anticipated to move through the drainages on-site. Coyotes were noted in the central drainage, and their presence is expected to continue even after development as Coyotes are well adapted to moving through rural neighborhoods and the central drainage crossing will have an earthen bottom and arch culvert.
- 6.1.C The proposed project is located adjacent to existing residences to the north, east and west, and as such will not create an artificial wildlife corridor. The site is basically an isolated habitat patch with no off-site connectivity.
- 6.1.D With regard to the potential increased noise and/or nighttime lighting, all exterior lighting will be shielded away from the RPO wetlands and associated Open Space in compliance with the Palomar Dark Sky Policy to minimize the nighttime light intrusion. This requirement shall be included on the plans. Increased noise will occur with the addition of twenty residences. However, Interstate 8 is located to the south and creates a high level of ambient noise already.
- 6.1.E The project is an isolated block of habitat with no off-site habitat connectivity.
- 6.1.F The project is an isolated block of habitat with no off-site habitat connectivity.

6.3 Cumulative Impact Analysis

Since the property is an isolated block of habitat with no through movement of wildlife, there is no wildlife corridor to protect. The current design of the Alpine 21 project impacts 0.04-acre of wetlands, waters of the U.S. and waters of the state and 0.3-acre of Southern Coast Live Oak Riparian Forest. Mitigation for these impacts will occur on-site through creation of 0.6-acre of Southern Coast Live Oak Riparian Forest and removal of an earthen berm with recontouring of the drainages in this area to their natural flows. In addition, the one drainage crossing has been designed with an earthen bottom and arch top to facilitate wildlife movement along the drainage underneath the road crossing. With regard to the potential increase in noise and/or nighttime lighting, the outdoor lighting will be shielded away from the RPO wetlands and associated Open

Space. There will be increased noise from the addition of twenty residences. However, Intestate 8 already generates a high ambient noise level. Therefore, this potential impact is not believed to be cumulatively considerable.

6.4 Mitigation Measures and Design Considerations

The following mitigation measure will be implemented to mitigate the potentially significant impacts to the existing wildlife on-site:

5. Outdoor lighting will be shielded away from the existing RPO wetlands and associated Open Space by requiring downward shielded lights in compliance with the Palomar Dark Sky Policy to minimize the nighttime light intrusion. This requirement shall be included on the plans.

6.5 Conclusions

Since the Alpine 21 property does not contain any wildlife corridors, there are no significant impacts to wildlife movement and none that are believed to be cumulatively considerable. Similarly, the potential increase in noise and nighttime lighting is being mitigated through project design and the requirement to shield outdoor lighting away from the RPO wetland and associated Open Space.

7.0 Local Policies, Ordinances, Adopted Plans

This section pertains to the determination of significant impacts, as a result of the project, with respect to local policies, ordinances and adopted plans.

7.1 Guidelines for the Determination of Significance

Any of the following conditions would be considered significant:

- A. For lands outside of the MSCP, the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- B. The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning Process (NCCP). For example, the project proposed development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
- C. The project will impact any amount of sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).

- D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning Process (NCCP) Guidelines.
- E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.
- F. For lands within the Multiple Species Conservation program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).
- G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).
- I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
- J. The project would reduce the likelihood of survival and recovery of listed species in the wild.
- K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).
- L. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 Analysis of Project Effects

The potentially significant effects on local policies, ordinances or adopted plans per the Guidelines in Section 7.1 above are analyzed below.

- 7.1.A There is no Diegan Coastal Sage Scrub on the Alpine 21 property.
- 7.1.B The Alpine 21 property is located within the approved MSCP Subarea Plan. No portion of the property is located within the Pre-Approved Mitigation Area (PAMA). Therefore, the project would not preclude or prevent the preparation of the subregional NCCP.
- 7.1.C Under Section 7.1.C, 0.3-acre of Coast Live Oak Woodland, 0.3-acre of Southern Coast Live Oak Riparian Forest, and 38.4-acres of Southern Mixed Chaparral will be permanently impacted. These impacts will be mitigated by acquiring 0.3-acre of Tier I habitat and 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP, and by creating/restoring 0.6-acre of Southern Coast Live Oak Riparian Forest on-site.
- 7.1.D There is no Diegan Coastal Sage Scrub on the Alpine 21 property.
- 7.1.E The project does conform to the goals and requirements as outlined in the regional planning efforts, such as the MSCP. The project is located outside of a PAMA and appropriate mitigation is proposed for impacts to sensitive habitats.

- 7.1.F The Alpine 21 property is within the County of San Diego South County MSCP Subarea Plan, but the site is outside of the PAMA.
- 7.1.G There is no Diegan Coastal Sage Scrub on the Alpine 21 property.
- 7.1.H There are no wildlife corridors or linkages within the bounds of the Alpine 21 property.
- 7.1.I No narrow endemics were noted during the field surveys.
- 7.1.J No listed species were noted during the field surveys.
- 7.1.K Under Section 7.1.K, the proposed project could result in the take of migratory birds or destruction of active migratory bird nests and/or eggs. However, it is recommended that grading for the project should occur outside of the avian breeding season (January 15 to July 15 for raptors and February 15 to August 31 for other nesting birds).
- 7.1.L There are no suitable nest sites for either the Bald Eagle or Golden Eagle on the property.

7.3 Cumulative Impact Analysis

Any projects that go through the County that could impact migratory birds are conditioned such that any grading, clearing or grubbing activity shall occur outside of the avian breeding season. With this condition, there are no cumulative effects because there are no impacts to migratory birds.

“Sensitive Habitat Lands” are defined in the RPO as, “Land which supports unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants including the area which is necessary to support a viable population of any of the above species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning wildlife corridor”. Using this definition, the Southern Mixed Chaparral, Southern Coast Live Oak Riparian Forest, and Coast Live Oak Woodlands are considered sensitive habitats. The portions of these habitats that will be unavoidably impacted will be mitigated for as described in the above Section 4.4. Therefore, there are no cumulative impacts anticipated.

7.4 Mitigation Measures and Design Considerations

The following mitigation measures will be implemented to mitigate the potentially significant effects on sensitive habitat lands and migratory birds to a less than significant level:

1. The preferred approach to site development would be for no grading, grubbing or clearing of vegetation to occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall include such statement. If grubbing or clearing must occur during the general avian breeding season within 300 feet of general nesting bird habitat, a pre-construction survey shall be conducted by a qualified biologist no more than three days prior to the commencement of the activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/ nesting behavior) within this area, with results

submitted to the County and Wildlife Agencies for review, clearing and grubbing shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted, with results submitted to the County and Wildlife Agencies for review. If active nests or nesting birds are observed within the area, the biologist shall submit the nesting bird survey results and proposed buffers to the County and Wildlife Agencies for review and will be required to receive written approval from the County regarding proposed buffers, prior to work proceeding. The biologist shall then flag buffers around the active nests and construction activities shall avoid active nest buffers until nesting behavior has ceased, nests have failed, or young have fledged, with results submitted to the County and Wildlife Agencies.

2. During construction, no activity shall occur within 500-feet of active raptor nests. All grading permits, improvement plans and the final map will include such statement. If grubbing, clearing or grading is proposed during the raptor breeding season (January 15 to July 15), a pre-grading nesting raptor survey will be conducted within three days prior to clearing to determine if raptors occur within 500-feet of the areas proposed to be directly impacted by grading, grubbing, or clearing, or indirectly impacted by noise. If there are no raptors nesting within 500-feet (includes nest building or other breeding/nesting behavior), development will be allowed to proceed upon approval of the Director of PDS with concurrence from USFWS and CDFW. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction will be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after all birds have fledged; or (2) a temporary noise barrier or berm is constructed at the edge of the development footprint to reduce noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ), to the satisfaction of the Director of PDS with concurrence from USFWS and CDFW. Alternatively, if approved by the Director of PDS with concurrence from USFWS and CDFW, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ) in lieu of or in concert with a wall or other sound attenuation barrier.
3. Permanent impacts to the 0.3-acre of Coast Live Oak Woodland, 0.3-acre of Southern Coast Live Oak Riparian Forest and 38.4-acres of Southern Mixed Chaparral will be mitigated by acquiring 0.3-acre of Tier I habitat and 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP, and by creating 0.6-acre of Southern Coast Live Oak Riparian Forest habitat on-site. Impacts to the 0.04-acre of combined wetlands, waters of the state, and waters of the U.S. will be mitigated by removing an existing earthen berm on-site and recontouring the drainage to its natural flows.
4. Outdoor lighting will be shielded away from the RPO wetlands and associated Open Space by requiring downward shielded lights in compliance with the

Palomar Dark Sky Policy to minimize the nighttime light intrusion. This requirement shall be included on the plans.

5. An open space easement will be dedicated over the RPO wetlands and proposed 50-foot wetland buffer.

7.5 Conclusions

By implementing the five mitigation measures outlined in Section 7.4 above, the potentially significant impact to RPO sensitive habitat lands and migratory birds will be mitigated to a less than significant level.

8.0 Summary of Project Impacts and Mitigation

The areas of vegetation by type within the Alpine 21 Subdivision and the associated mitigation requirements are summarized in the following table:

Vegetation Impact and Mitigation Summary¹

Vegetation Community	Existing Acreage On-site	Acres Impacted On-site	Acres Impact Neutral ²	Acres Used for On-site Mitigation ³	Mitigation Ratio ⁴	Required Mitigation (acres)	Proposed Mitigation (acres)
Granitic Southern Mixed Chaparral (Element Code 37121)	72.0	38.4	33.45	0.15	0.5:1	19.2	Acquisition of 19.2-acres of Tier III habitat at Crestridge Conservation Bank or other suitable mitigation site within the MSCP and restoration of 0.02-acre of temporary impacts
Coast Live Oak Woodland (Element Code 71160)	0.8	0.3	0.5	None	1:1	0.3	Acquisition of 0.3-acres of Tier I habitat at Crestridge Conservation Bank or other suitable mitigation site within the MSCP

Vegetation Community	Existing Acreage On-site	Acres Impacted On-site	Acres Impact Neutral²	Acres Used for On-site Mitigation³	Mitigation Ratio⁴	Required Mitigation (acres)	Proposed Mitigation (acres)
Southern Coast Live Oak Riparian Forest (Element Code 61310)	6.6	0.3	6.3	None	2:1	0.6	On-site creation of 0.28-acre of Southern Coast Live Oak Riparian Forest and Restoration of 0.32-acre of Southern Coast Live Oak Riparian Forest (see Open Water)
Open Water (Element Code 64100)	0.2	None	None	0.2	N/A	N/A	Restoration to 0.2-acre of Southern Coast Live Oak Riparian Forest
Urban/Developed (Element Code 12000)	1.1	0.22	0.63	0.25	N/A	None	None

Vegetation Community	Existing Acreage On-site	Acres Impacted On-site	Acres Impact Neutral ²	Acres Used for On-site Mitigation ³	Mitigation Ratio ⁴	Required Mitigation (acres)	Proposed Mitigation (acres)
Totals	80.7	39.22	40.88	0.6		20.02	Acquisition of 19.2-acres of Tier III habitat and 0.3-acre of Tier I habitat at Crestridge Conservation Bank or other suitable mitigation site within the MSCP, and On-site creation of 0.6-acre of Southern Coast Live Oak Riparian Forest, and Restoration of 0.02-acre of Southern Mixed Chaparral

¹ Calculated impacts include those due to grading, tree wells, the water easement, and fuel modification. For the Granitic Southern Mixed Chaparral, the 0.02-acre of temporary impacts caused by accessing the mitigation area for restoration work have been included.

^{2, 3} The majority of the on-site Open Space is not counted towards mitigation or counted as impacts, it is considered impact neutral. The only exception to this is the 0.6-acre area along the western property boundary being used to mitigate for impacts to wetlands, waters of the state, waters of the U.S., and Southern Coast Live Oak Riparian Forest. The area containing the Open Water will be recontoured to create natural flows thereby removing the Open Water and replacing it with Southern Coast Live Oak Riparian Forest. The 0.02-acre of temporary impacts to the Granitic Southern Mixed Chaparral caused by accessing the mitigation area for restoration work has been included in the impact neutral category as it will be restored after the restoration work is complete.

⁴ Mitigation Ratios were taken from the County of San Diego Biological Mitigation Ordinance for Impacted Land Does Not Meet Criteria for BRCA and either Mitigation Site Meets Criteria for BRCA or Mitigation Site Does Not Meet Criteria for BRCA. The N/A for Open Water is a result of the area being restored to pre-burn conditions of Southern Coast Live Oak Riparian Forest.

Implementation of the project as proposed will have the following effects on existing biological resources. These anticipated effects are:

1. The loss of 0.3-acre of Coast Live Oak Woodland;
2. The loss of 0.3-acre of Southern Coast Live Oak Riparian Forest;
3. The permanent loss of 38.4-acres of Southern Mixed Chaparral;

4. The temporary loss of 0.02-acre of Southern Mixed Chaparral;
5. The permanent loss of 150-square feet of waters of the U.S./waters of the state;
6. The temporary loss of 1,800-square feet of federal jurisdictional wetlands/waters of the state;
7. The construction of a homes near RPO wetlands, CDFW wetlands, waters of the state, waters of the U.S, and ACOE wetlands; and
8. The construction of homes in an area utilized by migratory birds.

Of these effects, all eight can be considered potentially significant. Implementation of the following selected mitigation measures can reduce these eight effects to a level less than significant.

1. Permanent impacts to the 0.3-acre of Coast Live Oak Woodland, 0.3-acre of Southern Coast Live Oak Riparian Forest and 38.4-ares of Southern Mixed Chaparral will be mitigated by acquiring 0.3-acres of Tier I habitat and 19.2-acres of Tier III habitat at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP, and by creating 0.6-acre of Southern Coast Live Oak Riparian Forest on-site. Impacts to the combined 0.04-acre of wetlands, waters of the state and waters of the U.S, will be mitigated by removing an existing earthen dam on-site and recontouring the drainage in this area to its natural flows.
2. Temporary impacts to 0.02-acre of Southern Mixed Chaparral caused by accessing the mitigation area for the restoration work will be restored on-site after the work within the mitigation area is complete.
3. During construction, no activity shall occur within 500-feet of active raptor nests. All grading permits, improvement plans and the final map will include such statement. If grubbing, clearing or grading is proposed during the raptor breeding season (January 15 to July 15), a pre-grading nesting raptor survey will be conducted within three days prior to clearing to determine if raptors occur within 500-feet of the areas proposed to be directly impacted by grading, grubbing, or clearing, or indirectly impacted by noise. If there are no raptors nesting within 500-feet (includes nest building or other breeding/nesting behavior), development will be allowed to proceed upon approval of the Director of PDS with concurrence from USFWS and CDFW. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction will be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after all birds have fledged; or (2) a temporary noise barrier or berm is constructed at the edge of the development footprint to reduce noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ), to the satisfaction

of the Director of PDS with concurrence from USFWS and CDFW. Alternatively, if approved by the Director of PDS with concurrence from USFWS and CDFW, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB LEQ or ambient (if ambient is greater than 60 dB LEQ) in lieu of or in concert with a wall or other sound attenuation barrier.

4. Outdoor lighting will be shielded away from the RPO wetlands and adjoining Open Space by requiring downward shielded lights in compliance with the Palomar Dark Sky Policy to minimize the nighttime light intrusion. This requirement shall be included on the plans.
5. An open space easement will be dedicated over the RPO wetlands and proposed 50-foot wetland buffer.

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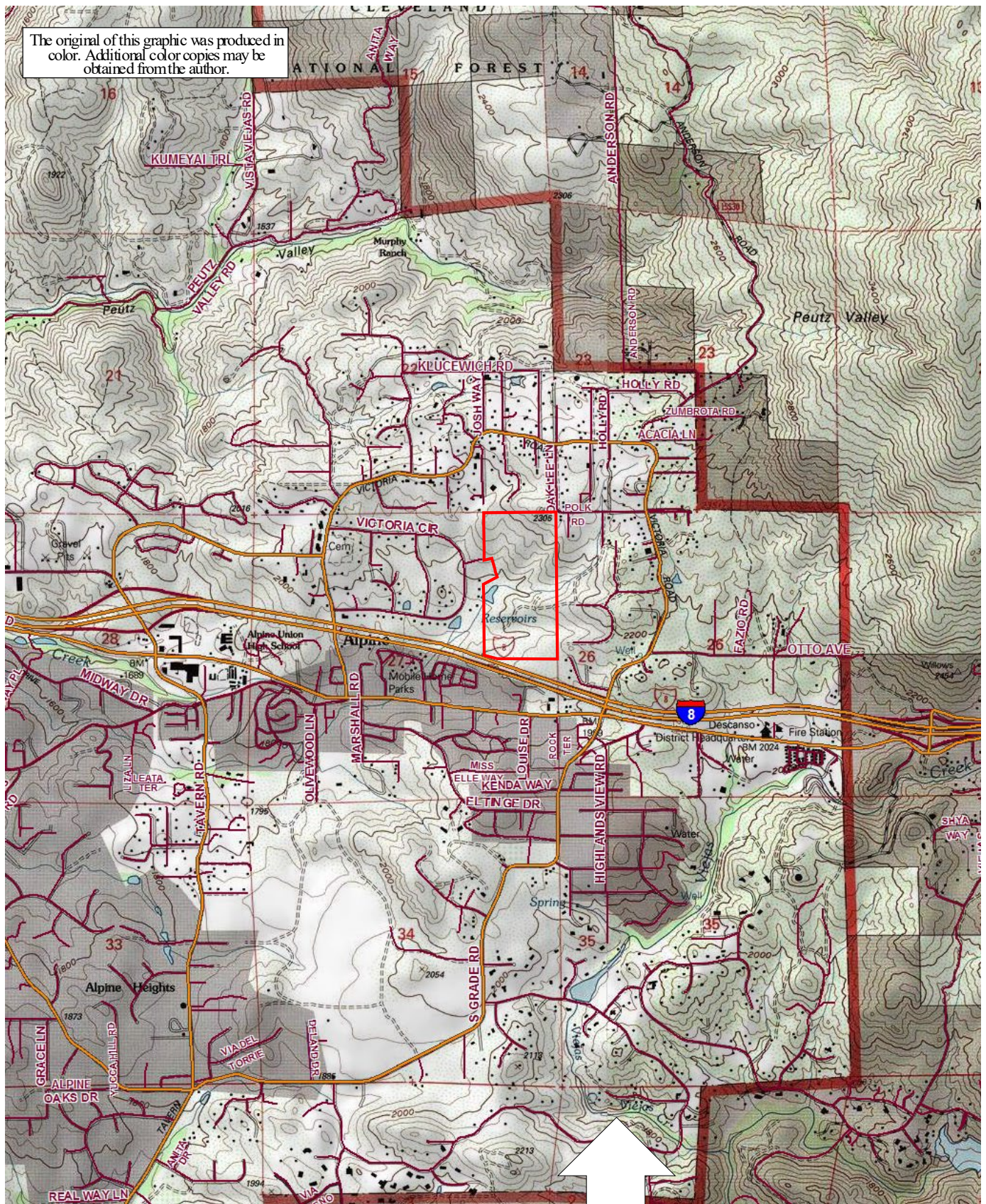
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Cummings Environmental Job Number 1722.21D 23 October 2019

Scale: 1-inch = 2,000-feet

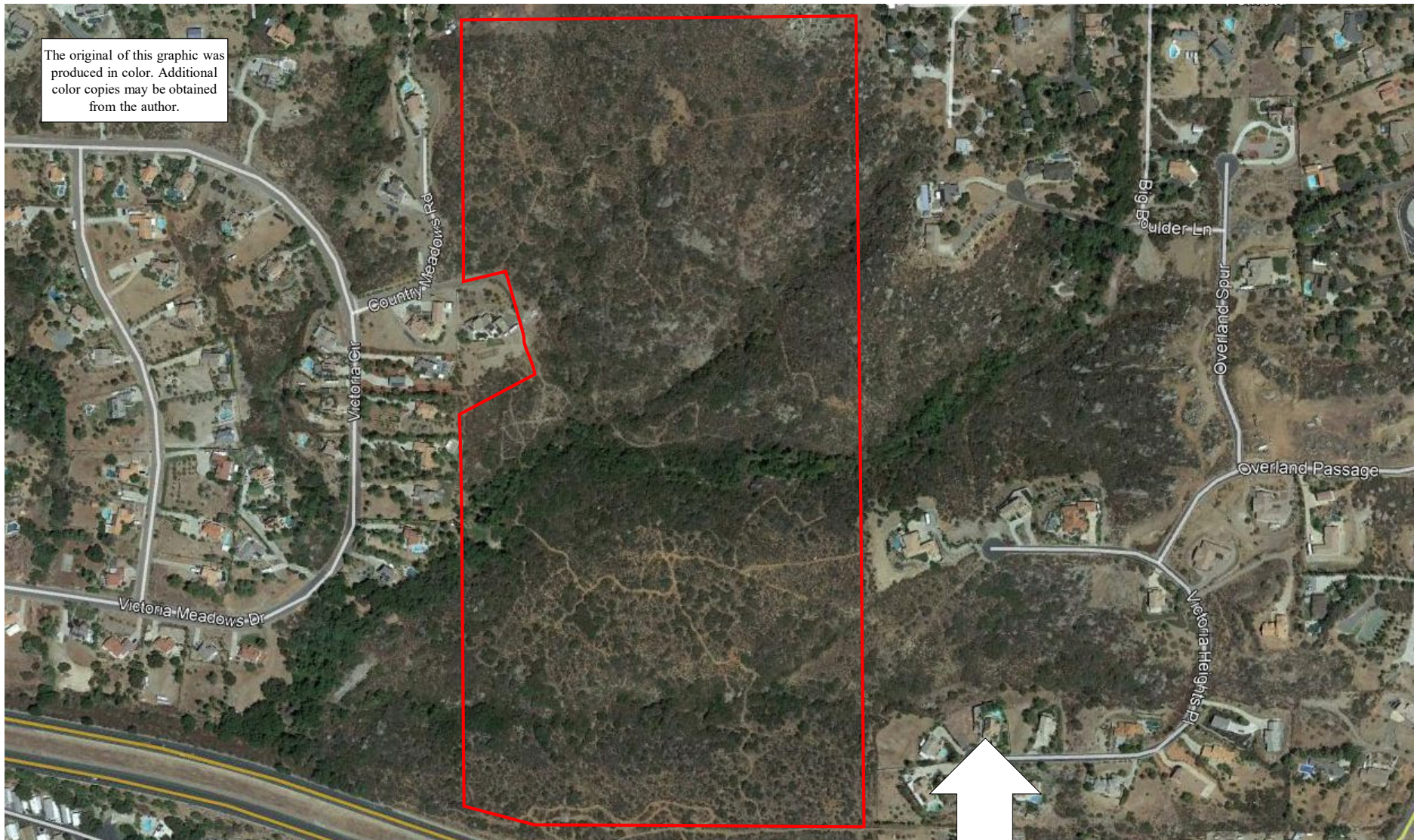
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**Alpine 21 Project Shown on the U.S.G.S.
7½-minute Alpine Quad Map**
[Base Map Created with TOPO!® ©2006 National Geographic;
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**Figure
1**

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Cummings Environmental Job Number 1722.21D 23 October 2019

Scale: 1-inch = 500-feet

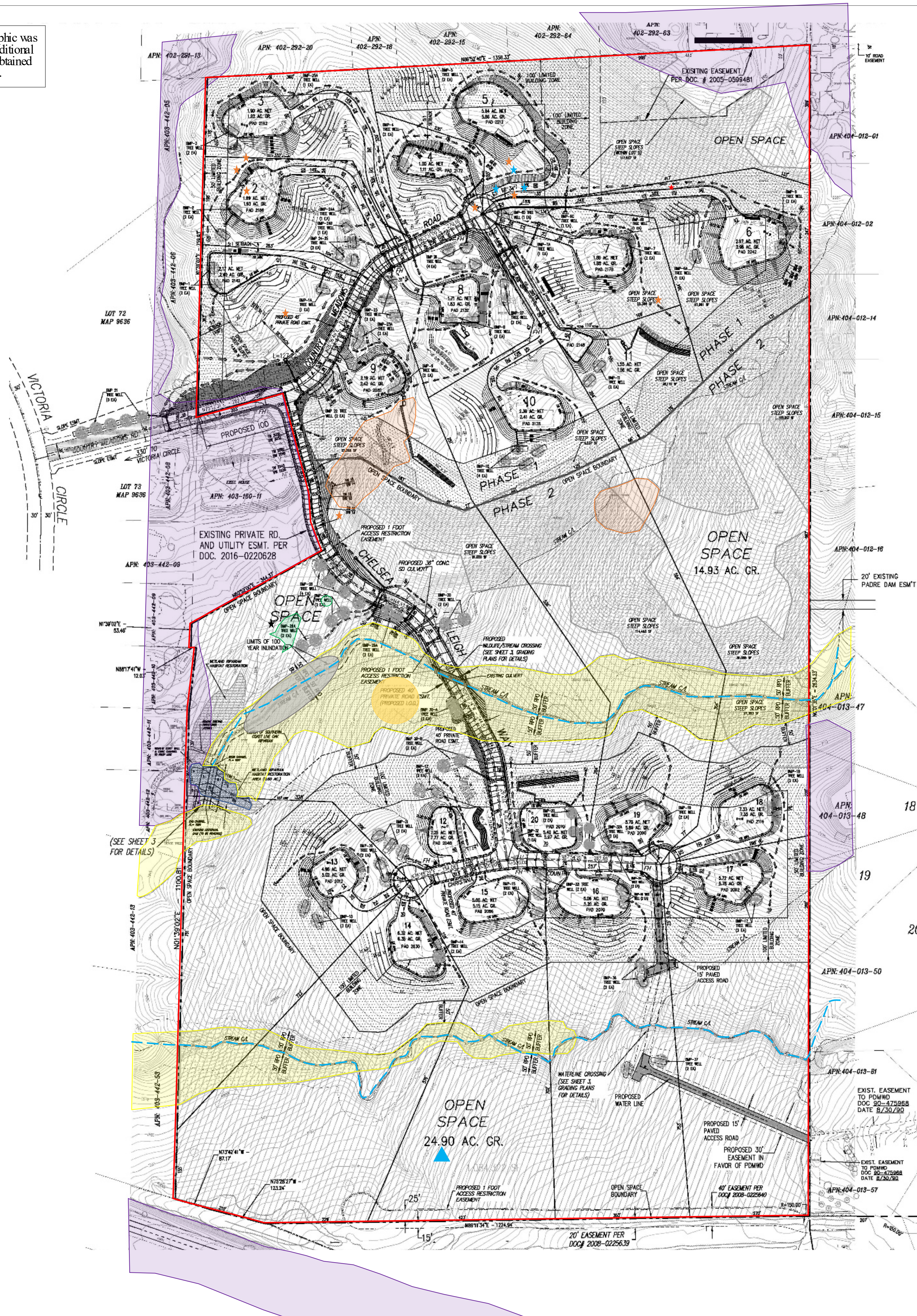
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Alpine 21 Project Shown on an Aerial Photo
[Base Photo © 2018 Google; Imagery Date 8/13/2018]

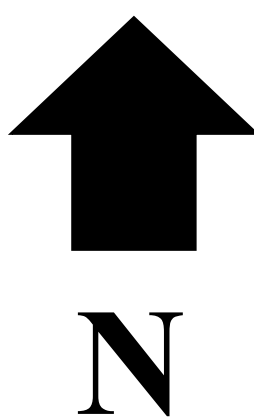
**Figure
2**

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KEY

- | | |
|--|--|
| Waters of the State and Waters of the U.S. | Palmer's Grappling Hook (1,000 plants) |
| Granitic Southern Mixed Chaparral (Holland, 1986 as modified by Oberbauer, 1996; Element Code 37121) | Fish's Milkwort (5 plants) |
| Southern Coast Live Oak Riparian Forest (Holland, 1986 as modified by Oberbauer, 1996; Element Code 61310) | San Diego Sagewort (70 plants) |
| Coast Live Oak Woodland (Holland, 1986 as modified by Oberbauer, 1996; Element Code 71160) | Chaparral Rein-Orchid (1 plant) |
| Open Water (Holland, 1986 as modified by Oberbauer, 1996; Element Code 64100) | San Diego Horned Lizard |
| Urban/Developed (Holland, 1986 as modified by Oberbauer, 1996; Element Code 12000) | Coastal Western Whiptail |
| | Rufous-crowned Sparrow |
| | Orange-throated Whiptail |



Scale: 1-inch = 120-feet

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[\\1722-Fig-4-2019.pptx]

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**Site Photos: Top Photo of Southern Mixed
Chaparral With Boulder Outcrops; Bottom Photo
of Southern Coast Live Oak Riparian Forest in the
Southern Part of the Site**

**Figure
4**

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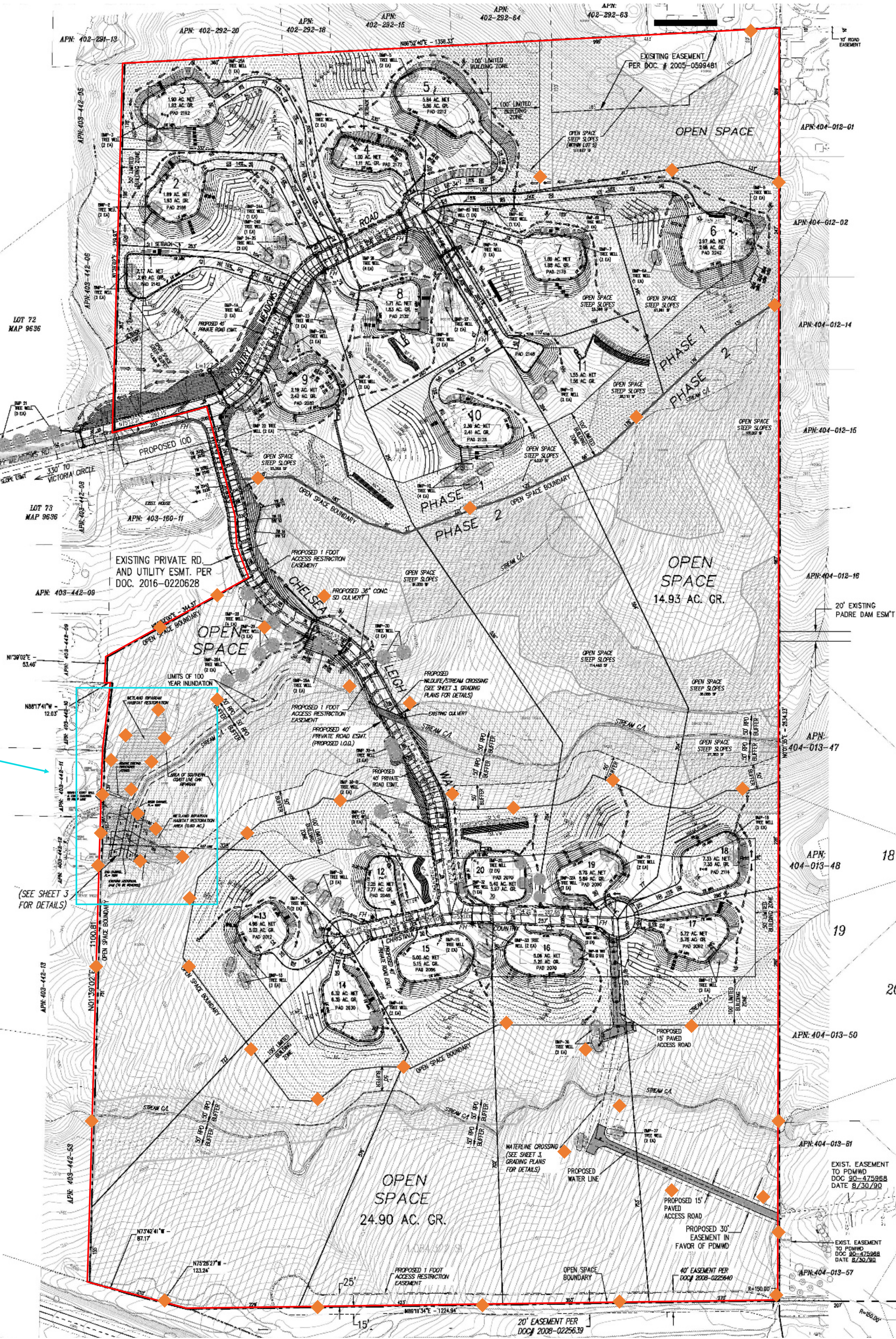
See Figure 6 for Map of Enlarged Wetland Creation/Restoration Area

KEY

Parcel Boundary

Enlarged Map Area on Figure 6

Open Space Signs



KEY



Parcel Boundary



Hydromodification Area (Removal of Historical Earthen Dam, Recontouring of Ponded Area, and 0.32-acre of Restoration/Creation of Southern Coast Live Oak Riparian Forest)



Proposed Alignment of Drainages to Recreate Pre-Dam Flows

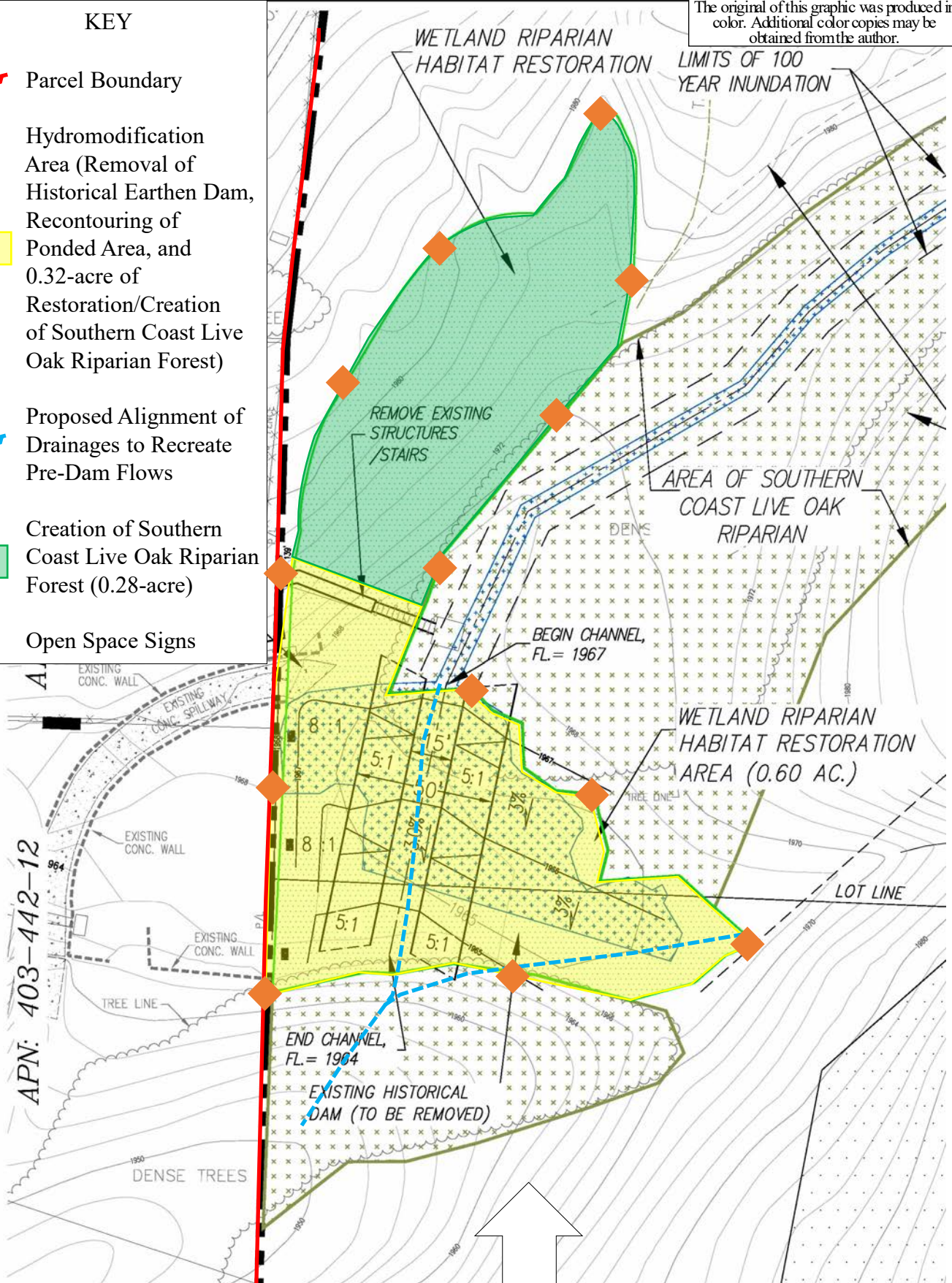


Creation of Southern Coast Live Oak Riparian Forest (0.28-acre)



Open Space Signs

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Cummings Environmental Job Number 1722.21D 15 May 2020

[1722-Fig-6.pptx]

**Cummings
Environmental**

**Open Space Map of Wetland
Creation/Restoration Area**
[Base Plan Prepared by Jones Engineering, Inc.]

**Figure
6**

Table 1

Vascular Plants Observed on the Alpine 21 Property (TM 5431)

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
Adoxaceae Muskroot Family	<i>Sambucus nigra</i> ssp. <i>caerulea</i> Blue Elderberry	SCLORF	N
Agavaceae Century Plant Family	<i>Chlorogalum</i> cf. <i>parviflorum</i> Small-Flower Soap Plant	SMC	N
	<i>Hesperoyucca whipplei</i> Chaparral Yucca	SMC	N
Anacardiaceae Sumac Family	<i>Malosma laurina</i> Laurel Sumac	SMC	N
	<i>Rhus ovata</i> Sugar Bush	SMC	N
	<i>Schinus molle</i> Pepper Tree	Dev	I
	<i>Toxicodendron diversilobum</i> Western Poison Oak	SCLORF	N
Apiaceae Carrot Family	<i>Lomatium dasycarpum</i> ssp. <i>dasycarpum</i> Woolly-fruit Lomatium	SMC	N
Asteraceae Sunflower Family	<i>Ambrosia psilostachya</i> Western Ragweed	SCLORF	N
	<i>Artemisia californica</i> California Sagebrush	SMC	N
	<i>Artemisia douglasiana</i> Mugwort	SCLORF	N
	<i>Artemisia palmeri</i> San Diego Sagewort	SCLORF	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed ¹	Native (N) or Introduced (I)
	<i>Baccharis sarothroides</i> Broom Baccharis	SMC	N
	<i>Brickellia californica</i> California Brickellbush	SMC	N
	<i>Centaurea melitensis</i> Tocalote	Dev, SMC	I
	<i>Chaenactis artemisiifolia</i> White Pincushion	SMC	N
	<i>Chaenactis glabriuscula</i> var. <i>glabriuscula</i> Yellow Pincushion	SMC	N
	<i>Encelia californica</i> California Encelia	SMC	N
	<i>Erigeron canadensis</i> Horseweed	SMC	N
	<i>Eriophyllum confertiflorum</i> Golden-Yarrow	SMC	N
	<i>Gutierrezia sarothrae</i> Matchweed	SMC	N
	<i>Hazardia squarrosa</i> Saw-toothed Goldenbush	SMC	N
	<i>Helianthus gracilentus</i> Slender Sunflower	SMC	N
	<i>Hemizonella minima</i> Miniature Tarweed	SMC	N
	<i>Heterotheca grandiflora</i> Telegraph Weed	SMC	N
	<i>Hypochaeris glabra</i> Smooth Cat's-ear	Dev, SMC	I
	<i>Logfia gallica</i> Daggerleaf Cottonrose	Dev, SMC	I

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
	<i>Pseudognaphalium biolettii</i> Bicolor Cudweed	SMC	N
	<i>Pseudognaphalium californicum</i> California Everlasting	SMC	N
Boraginaceae Borage Family	<i>Amsinckia menziesii</i> Common Fiddleneck	SMC	N
	<i>Cryptantha</i> sp. Cryptantha	SMC	N
	<i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i> Common Eucrypta	SMC	N
	<i>Harpagonella palmeri</i> Palmer's Grapplinghook	SMC	N
	<i>Pectocarya linearis</i> ssp. <i>ferocula</i> Narrow-toothed Pectocarya	SMC	N
	<i>Phacelia parryi</i> Parry's Phacelia	SMC	N
	<i>Plagiobothrys</i> sp. Popcorn Flower	SMC	N
Brassicaceae Mustard Family	<i>Brassica nigra</i> Black Mustard	Dev, SMC	I
	<i>Hirschfeldia incana</i> Shortpod Mustard	Dev, SMC	I
	<i>Raphanus sativus</i> Radish	Dev, SMC	I
Cactaceae Cactus Family	<i>Opuntia xoccidentalis</i> Western Prickly-Pear	SMC	N
Caprifoliaceae Honeysuckle Family	<i>Lonicera subspicata</i> var. <i>denudata</i> Honeysuckle	SMC, SCLORF	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
Chenopodiaceae Goosefoot Family	<i>Salsola tragus</i> Russian Thistle	Dev, SMC	I
Cistaceae Rock-Rose Family	<i>Cistus incanus</i> Purple Rock-Rose	SMC	I
	<i>Helianthemum scoparium</i> Peak Rush-Rose	SMC	N
Convolvulaceae Morning-Glory Family	<i>Calystegia macrostegia</i> Morning Glory	SMC	N
	<i>Cuscuta californica</i> Chaparral Dodder	SMC	N
Crassulaceae Stonecrop Family	<i>Crassula connata</i> Pygmy-weed	SMC	N
	<i>Dudleya pulverulenta</i> Chalk Dudleya	SMC	N
Cucurbitaceae Gourd Family	<i>Marah macrocarpa</i> Chilicothe	SMC	N
Ericaceae Heath Family	<i>Arctostaphylos glandulosa</i> ssp. <i>glandulosa</i> Eastwood Manzanita	SMC	N
	<i>Xylococcus bicolor</i> Mission Manzanita	SMC	N
Fabaceae Legume Family	<i>Acacia</i> sp. Wattle	Dev	I
	<i>Acmispon glaber</i> Deerweed	SMC	N
	<i>Acmispon strigosus</i> Strigose Lotus	SMC	N
	<i>Lupinus bicolor</i> Miniature Lupine	SMC	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
	<i>Lupinus hirsutissimus</i> Stinging Lupine	SMC	N
Fagaceae Oak Family	<i>Quercus agrifolia</i> Coast Live Oak	SCLORF, CLOW	N
	<i>Quercus berberidifolia</i> Scrub Oak	SMC	N
	<i>Quercus engelmannii</i> Engelmann Oak	SMC, CLOW, SCLORF	N
Gentianaceae Gentian Family	<i>Zeltnera venusta</i> California Centaury	SMC	N
Geraniaceae Geranium Family	<i>Erodium cicutarium</i> Redstem Filaree	SMC	I
Lamiaceae Mint Family	<i>Salvia apiana</i> White Sage	SMC	N
	<i>Salvia clevelandii</i> Fragrant Sage	SMC	N
	<i>Salvia columbariae</i> Chia	SMC	N
	<i>Trichostema parishii</i> Mountain Bluecurls	SMC	N
Liliaceae Lily Family	<i>Calochortus splendens</i> Splendid Mariposa Lily	SMC	N
	<i>Calochortus weedii</i> var. <i>weedii</i> Weed's Mariposa Lily	SMC	N
Myrsinaceae Myrsine Family	<i>Anagallis arvensis</i> Scarlet Pimpernel	Dev, SMC	I
Nyctaginaceae Four O'clock Family	<i>Mirabilis laevis</i> var. <i>crassifolia</i> Wishbone Bush	SMC	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
Onagraceae Evening-Primrose Family	<i>Camissoniopsis hirtella</i> Field Sun Cup	SMC	N
Orchidaceae Orchid Family	<i>Piperia cooperi</i> Chaparral Rein-Orchid	SMC	N
Paeoniaceae Peony Family	<i>Paeonia californica</i> California Peony	SMC, SCLORF	N
Phrymaceae Lopseed Family	<i>Mimulus aurantiacus</i> Monkeyflower	SMC	N
Plantaginaceae Plantain Family	<i>Antirrhinum nuttallianum</i> Nuttall's Snapdragon	SMC	N
	<i>Keckiella cordifolia</i> Climbing Bush Penstemon	SCLORF	N
	<i>Plantago erecta</i> Dot-seed Plantain	SMC	N
Platanaceae Sycamore Family	<i>Platanus racemosa</i> Western Sycamore	SCLORF	N
Poaceae Grass Family	<i>Bromus madritensis ssp. rubens</i> Red Brome	Dev, SMC	I
	<i>Cortaderia selloana</i> Pampas Grass	Dev	I
	<i>Elymus condensatus</i> Giant Wild-Rye	SMC	N
	<i>Pennisetum villosum</i> Feathertop	SMC	I
	<i>Stipa lepida</i> Foothill Needle Grass	SMC	N
Polemoniaceae Phlox Family	<i>Eriastrum sapphirinum</i> Woolly-Star	SMC	N
	<i>Navarretia hamata</i> Hooked Skunkweed	SMC	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
Polygalaceae Milkwort Family	<i>Polygala cornuta</i> var. <i>fishiae</i> Fish's Milkwort	SCLORF	N
Polygonaceae Milkwort Family	<i>Chorizanthe fimbriata</i> var. <i>laciniata</i> Laciniate Spineflower	SMC	N
	<i>Chorizanthe procumbens</i> Prostrate Spineflower	SMC	N
	<i>Chorizanthe staticoides</i> Turkish Rugging	SMC	N
	<i>Eriogonum fasciculatum</i> California Buckwheat	SMC	N
	<i>Pterostegia drymarioides</i> Woodland Threadstem	SMC	N
	<i>Rumex crispus</i> Curly Dock	SCLORF	I
Pteridaceae Brake Family	<i>Pellaea mucronata</i> Bird's-foot Fern	SMC, SCLORF	N
	<i>Pentagramma triangularis</i> Goldback Fern	SMC, SCLORF	N
Rhamnaceae Buckthorn Family	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i> Buckbrush	SMC	N
	<i>Ceanothus tomentosus</i> Ramona Lilac	SMC	N
	<i>Rhamnus ilicifolia</i> Hollyleaf Redberry	SMC	N
Rosaceae Rose Family	<i>Adenostoma fasciculatum</i> Chamise	SMC	N
	<i>Cercocarpus betuloides</i> var. <i>betuloides</i> Birch-leaf Mountain Mahogany	SMC	N
	<i>Heteromeles arbutifolia</i> Toyon	SMC	N

Plant Family	Scientific Name Common Name	Vegetative Community in which the Species was Observed¹	Native (N) or Introduced (I)
	<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i> Holly-leaved Cherry	SMC	N
Rubiaceae Madder Family	<i>Galium angustifolium</i> ssp. <i>angustifolium</i> Narrowly Leaved Bedstraw	SMC	N
	<i>Galium aparine</i> Goose Grass	SMC, SCLORF	N
Salicaceae Willow Family	<i>Populus fremontii</i> ssp. <i>fremontii</i> Fremont Cottonwood	SCLORF	N
	<i>Salix gooddingii</i> Goodding's Black Willow	SCLORF	N
	<i>Salix lasiolepis</i> Arroyo Willow	SCLORF	N
Scrophulariaceae Figwort Family	<i>Scrophularia californica</i> California Figwort	SMC	N
Selaginellaceae Spike-Moss Family	<i>Selaginella bigelovii</i> Bigelow's Spike-Moss	SMC	N
Solanaceae Nightshade Family	<i>Datura wrightii</i> Jimson Weed	SMC	N
	<i>Solanum parishii</i> Parish's Nightshade	SMC	N
Themidaceae Brodiaea Family	<i>Dichelostemma capitatum</i> Blue Dicks	SMC	N
Zygophyllaceae Caltrop Family	<i>Tribulus terrestris</i> Puncture Vine	Dev, SMC	I

¹ Holland Element Codes (1986) as modified by Oberbauer (1996) are as follows: Southern Mixed Chaparral (SMC; Element Code 37121), Southern Coast Live Oak Riparian Forest (SCLORF; Element Code 61310), Coast Live Oak Woodland (CLOW; Element Code 71160), Open Water (OW; Element Code 13140), and Urban/Developed (Dev; Element Code 12000).

Table 2
Wildlife Species Observed
on the Alpine 21 Property, TM 5431
County of San Diego, California

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
Insects		
<i>Adelpha bredowii</i> California Sister	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Anthocharis sara</i> Sara Orangetip	SMC, SCLORF	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Plebejus acmon</i> Acmon Blue	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Apodemia mormo virgulti</i> Mormon Metalmark	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Brephidium exile</i> Western Pygmy-Blue	Dev, SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
<i>Callophrys augustinus</i> Brown Elfin	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Callophrys dumetorum</i> Bramble Hairstreak	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Colias eurytheme</i> Orange Sulphur	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Erynnis funeralis</i> Funereal Duskywing	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Erynnis pacuvius</i> Pacuvius Duskywing	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Glaucopsyche lygdamus</i> Silvery Blue	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Junonia coenia</i> Common Buckeye	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Limenitis lorquini</i> Lorquin's Admiral	SCLORF	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
<i>Nymphalis antiopa</i> Mourning Cloak	SCLORF	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Papilio eurymedon</i> Pale Swallowtail	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Papilio rutulus</i> Western Tiger Swallowtail	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Phyciodes mylitta</i> Mylitta Crescent	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Pieris rapae</i> Cabbage White	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Plebejus acmon</i> Acmon Blue	Dev, SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Pontia protodice</i> Checkered White	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Pyrgus albescens</i> White Checkered-Skipper	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
<i>Strymon melinus</i> Gray Hairstreak	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Vanessa annabella</i> West Coast Lady	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Vanessa atalanta</i> Red Admiral	SCLORF	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Vanessa cardui</i> Painted Lady	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
<i>Vanessa virginiensis</i> American Lady	SMC	Seen during the federal protocol survey for the Quino Checkerspot Butterfly. Please see Appendix A for specific survey results.
Reptiles		
<i>Aspidoscelis hyperythra</i> Orange-throated Whiptail	SMC	Nine individuals of this species were noted in the northern half of the site during the 2/25/16, 2/27/16, 3/17/16 and 4/5/16 site visits.
<i>Aspidoscelis tigris stejnegeri</i> Coastal Western Whiptail	SMC	One individual Coastal Western Whiptail was observed just north of the central drainage along the western property boundary during the 3/20/16 visit.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
<i>Phrynosoma blainvillii</i> San Diego Horned Lizard	SMC	Three individuals were seen in the northeast portion of the site during the 4/5/16 visit.
<i>Sceloporus occidentalis</i> Western Fence Lizard	SMC	A single individual was noted on 4/5/16.
<i>Uta stansburiana</i> Side-blotched Lizard	SMC	Single individuals were seen during the 2/19/15, 2/27/16, and 4/5/16 visits. Two lizards were seen during the 3/17/16 survey
Mammals		
<i>Canis latrans</i> Coyote	SMC, SCLORF	Tracks of this species were noted in the northern and central portions of the site. A pack of Coyotes was heard howling in response to a siren during the 3/20/16 visit.
<i>Neotoma fuscipes</i> Dusky-footed Woodrat	SMC, SCLORF	Stick nests assignable to this species were noted throughout the property within the Southern Coast Live Oak Riparian Forest and Southern Mixed Chaparral habitats.
<i>Spermophilus beecheyi</i> California Ground Squirrel	SMC	Individuals were seen around the boulder outcrops on-site during the 3/17/16, 4/5/16, and 5/16/16 visits.
<i>Sylvilagus audubonii</i> Audubon's Cottontail	SMC	Individuals and pellets assignable to this genus were found at scattered locations within the Southern Mixed Chaparral on the property.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
Birds		
Cooper's Hawk <i>Accipiter cooperi</i>	N/A	Individuals were seen as overflights in the northern portion of the property during the 5/16/16 and 3/17/16 surveys.
California Quail <i>Callipepla californica</i>	SMC	On 5/16/16, a covey was seen and heard in the northwest corner of the site.
Mourning Dove <i>Zenaida macroura</i>	SMC	This species was flushed from the ground in the southern portion of the site on 5/16/16.
Anna's Hummingbird <i>Calypte anna</i>	SMC	This species was heard and seen at scattered locations on-site during the 5/16/16 visit.
Costa's Hummingbird <i>Calypte costae</i>	SMC	During the 5/16/16 visit, a male was heard performing an aerial display.
Rufous Hummingbird <i>Selasphorus rufus</i>	SMC	During the 3/17/16 visit, a male was heard performing an aerial display.
Nuttall's Woodpecker <i>Picoides nuttallii</i>	SCLORF, CLOW	During the 5/16/16 visit, this species was heard in the Oak habitats in the central portions of the site.
Pacific-slope Flycatcher <i>Empidonax difficilis</i>	SCLORF	During the 3/17/16 and 5/16/16 surveys, individuals were heard calling from the Southern Coast Live Oak Riparian Forest near the central drainage.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
Ash-throated Flycatcher <i>Myiarchus cinerascens</i>	SMC	A single individual was heard during the 5/16/16 visit in the southern portion of the site.
California Scrub Jay <i>Aphelocoma californica</i>	SMC	This species was detected in the northern portion of the site during the 5/16/16 visit.
American Crow <i>Corvus brachyrhynchos</i>	N/A	This species was seen as an overflight on 5/16/16.
Cliff Swallow <i>Petrochelidon pyrrhonota</i>	N/A	This species was seen as overflights during the 5/16/16 survey.
Oak Titmouse <i>Baeolophus inornatus</i>	SCLORF, CLOW	During the 5/16/16 visit, this species was heard and seen in the Oak habitats in the central portions of the site.
Bushtit <i>Psaltirparus minimus</i>	SMC	A small flock of Bushtits was seen moving through the Southern Mixed Chaparral in the northeast portion of the property on 5/16/16.
Bewick's Wren <i>Thryomanes bewickii</i>	SMC	An individual was heard scolding just south of the central drainage on 5/16/16.
Blue-gray Gnatcatcher <i>Polioptila caerulea</i>	SMC	A pair of Blue-gray Gnatcatchers was seen during the 3/17/16 visit.
Western Bluebird <i>Sialia mexicana</i>	N/A	This species was observed as an overflight in the central portion of the site during the 2/19/15 survey.

Common Name <i>Scientific Name</i>	Vegetative Community ¹ in which the Species was Observed	Observations
Wrentit <i>Chamaea fasciata</i>	SMC	Heard and seen throughout the Chaparral habitat.
California Thrasher <i>Toxostoma redivivum</i>	SMC	This species was heard and seen south of the central drainage calling from a Manzanita on 5/16/16.
Phainopepla <i>Phainopepla nitens</i>	SMC	A pair of Phainopepla was seen in the southwestern part of the site on 5/16/16.
Spotted Towhee <i>Pipilo maculatus</i>	SMC, CLOW	During the 5/16/16 visit, this species was heard in the central part of the property.
California Towhee <i>Pipilo crissalis</i>	SMC	Several pair were noted throughout the site during the 5/16/16 visit.
Rufous-crowned Sparrow <i>Aimophila ruficeps</i> ssp. <i>canescens</i>	SMC	An individual was heard and seen in the northeastern portion of the property on the rocky, steep slopes during the 2/27/16 site visit.
House Finch <i>Carpodacus mexicanus</i>	N/A	This species was noted as overflights during the 5/16/16 visit.
Lesser Goldfinch <i>Carduelis psaltria</i>	N/A	This species was detected as overflights on 5/16/16.

¹ Holland Element Codes (1986) as modified by Oberbauer (1996) are as follows: Southern Mixed Chaparral (SMC; Element Code 37121), Southern Coast Live Oak Riparian Forest (SCLORF; Element Code 61310), Coast Live Oak Woodland (CLOW; Element Code 71160), Open Water (OW; Element Code 13140), and Urban/Developed (Dev; Element Code 12000).

60 Species

[:\1722 Wildlife Table.wpd]

Table 3

**Sensitive Plant Species Known to Occur Within an
Approximate 10-mile Radius¹ of the Alpine 21 Property (TM 5431)**

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Acanthomintha ilicifolia</i> San Diego Thornmint	List A/Rank1B.1/S1/CE/FT	Occurs on heavy clay soils in a variety of habitats at elevations of 32 - 3,159 feet.	N	U	There are no heavy clay soils mapped on the property (Bowman, 1973).
<i>Adolphia californica</i> California Adolphia	List B/Rank 2B.1/S2/-/-	Found on sandy/gravelly to clay soils in Coastal Sage Scrub, Chaparral, and Valley and Foothill Grassland habitats at elevations of 148 - 2,435 feet.	N	U	There are no clay soils mapped on-site, but there are sandy loams (Bowman, 1973). These sandy loams are occupied by Chaparral habitat within the known range of the species. However, there are no records of this species within the Alpine quad (CDFW, 2017a, and CNPS, 20170. NOTE: San Diego Adolphia is a synonym.
<i>Ambrosia monogyra</i> Singlewhorl Burrobrush	- /Rank 2B.2/S2/-/-	Found in sandy washes in the south coastal portion of San Diego County. Known elevations range from 32 – 1,645 feet.	N	U	This species is found at elevations lower than those represented on-site. NOTE: <i>Hymenoclea monogyra</i> is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Ambrosia pumila</i> San Diego Ambrosia	List A/Rank 1B.1/S1/-/FE	Found in sandy loam or clay soils in Chaparral, Sage Scrub, or Valley and Foothill Grassland habitats at elevations of 65 - 1,366 feet.	N	U	This species is found at elevations lower than those represented on the property. NOTE: Dwarf Burr Ambrosia is a synonym.
<i>Arctostaphylos otayensis</i> Otay Manzanita	List A/Rank 1B.2/S1/-/- CA Endemic	Found in Chaparral and Cismontane Woodlands at elevations ranging from 900 - 5,600 feet. Also, this species is found on metavolcanic soils.	N	U	There are no metavolcanic soils mapped on the property (Bowman, 1973).
<i>Artemisia palmeri</i> San Diego Sagewort	List D/Rank 4.2/S3?/-/-	Found primarily along creeks and drainages on sandy soils within Chaparral, Coastal Scrub, and riparian habitats at elevations of 49 - 3,011 feet.	Y	Observed	Approximately 70 plants were observed along the western edge of the central drainage. NOTE: Palmer's Sage is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Asplenium vespertinum</i> Western Spleenwort	List D/Rank 4.2/S4/-/-	Found among boulders and rock outcrops within Chaparral, Coastal Sage, and Cismontane Woodland habitats at elevations of 592 - 3,290 feet.	N	H	There are boulder outcrops in Chaparral habitat on the property within the known elevation range of the species. According to the CNPS (2017), this species is documented within the Alpine quad.
<i>Astragalus deanei</i> Dean's Milkvetch	List A/Rank 1B.1/S1/-/- CA Endemic	Found in Chaparral, Coastal Scrub, Cismontane Woodland, and Riparian Forest habitats at elevations of 246 - 2,287 feet. It is often found on south-facing slopes.	N	M	There are Chaparral and Cismontane Woodland habitats within the known elevational range of the species. The closest CNDDB record is approximately 4.5-miles to the northwest (CDFW, 2017a).
<i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba Milkvetch	List A/Rank 1B.2/S2S3/-/-	Found in open areas at elevations of 2,960 - 4,510 feet.	N	U	This species is found at elevations higher than those found on the subject property.
<i>Astragalus oocarpus</i> San Diego Milkvetch	List A/Rank 1B.2/S2?/-/- CA Endemic	Found in Chaparral and Cismontane Woodland habitats at elevations of 1,003 - 5,018 feet.	N	M	There are Chaparral and Cismontane Woodland habitats on the property within the known elevational range of the species. The only CNDDB record from the Alpine quad is located in the Cleveland National Forest approximately 4-miles to the southwest (CDFW, 2017a).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Atriplex pacifica</i> South Coast Saltscale	List A/Rank 1B.2/S2/-/-	Found in Coastal Bluff Scrub, Coastal Dune, Coastal Scrub, and Playa habitats at elevations of 0 - 461 feet.	N	U	There are no Coastal Bluff Scrub, Coastal Dune, Coastal Scrub, or Playa habitats on the property. Also, this species is found at elevations lower than those found on-site.
<i>Baccharis vanessae</i> Encinitas Baccharis	List A/Rank 1B.1/S1/CE/FT CA Endemic	Found on soils derived from marine sandstones in Chaparral habitat at elevations of 197 - 2,369 feet.	N	U	The soils on-site are derived from granodiorite, not marine sandstones (Bowman, 1973).
<i>Bloomeria clevelandii</i> San Diego Goldenstar	List A/Rank 1B.1/S2/-/-	Found in a variety of habitats on clay soils at elevations of 164 - 1,530 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973). NOTE: <i>Muilla clevelandii</i> is a synonym.
<i>Brodiaea orcuttii</i> Orcutt's Brodiaea	List A/Rank 1B.1/S2/-/-	Found on clay and sometimes serpentine soils in Vernal Pools and small drainages at elevations of 98 - 5,577 feet.	N	U	There are no clay or serpentine soils mapped on the property (Bowman, 1973).
<i>Calandrinia breweri</i> Brewer's Calandrinia	List D/Rank 4.2/S4/-/-	Found on sandy and loamy soils in disturbed or burned Chaparral and Coastal Scrub at elevations of 32 – 4,014 feet.	N	H	There are sandy loams mapped on the property (Bowman, 1973) within Chaparral habitat and this species is documented within the Alpine quad (CNPS, 2017).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>California macrophylla</i> Round-Leaved Filaree	List B/Rank 1B.2/S3?/-/-	Found on clay soils in Cismontane Woodland and Valley and Foothill Grassland habitats at elevations of 49 – 3,948 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973). NOTE: <i>Erodium macrophyllum</i> is a synonym.
<i>Calochortus dunnii</i> Dunn's Mariposa Lily	List A/Rank 1B.2/S2S3/CR/-	Found on metavolcanic or gabbroic soils in Chaparral and Closed-Cone Coniferous Forest habitats at elevations of 608 - 6,021 feet.	N	U	There are no metavolcanic or gabbroic soils mapped on the property (Bowman, 1973).
<i>Camissoniopsis lewisii</i> Lewis' Evening-Primrose	List C/Rank 3/S4/-/-	Found in sandy or clay soils in a variety of habitats at elevations from 0 - 987 feet.	N	U	This species is found at elevations lower than those represented on the property. NOTE: <i>Camissonia lewisii</i> is a synonym.
<i>Carex obispoensis</i> San Luis Obispo Sedge	- /Rank 1B.2/S3?/-/- CA Endemic	Found in Chaparral, Closed-cone Coniferous Forest, Coastal Prairie, Coastal Scrub and Valley and Foothill Grassland habitats in sand, clay, gabbroic, or serpentine soils at elevations of 32 - 2,698 feet.	N	M	There are sandy loams mapped on the property (Bowman, 1973) in Chaparral habitat within the known elevational range of the species. There are two CNDDDB records within the Alpine quad. The closest record is approximately 6.42-miles to the southwest on Sycuan Peak (CDFW, 2017a).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Castilleja plagiotoma</i> Mojave Paintbrush	-/Rank 4.3/S4/-/- CA Endemic	Found in Great Basin Scrub, Joshua Tree Woodland, Lower Montane Coniferous Forest, and Pinyon and Juniper Woodland habitats at elevations of 987 - 8,225 feet.	N	U	There are no Great Basin Scrub, Joshua Tree Woodland, Lower Montane Coniferous Forest, or Pinyon and Juniper Woodland habitats on the property.
<i>Caulanthus simulans</i> Payson's Jewel-flower	List D/Rank 4.2/S4/-/- CA Endemic	Found in Juniper Woodland, Chaparral, and Sage Scrub habitats at elevations of 296 - 7,238 feet.	N	M	There is Chaparral habitat on the property within the known elevational range of the species. This species is documented within the Alpine quad (CNPS, 2017).
<i>Ceanothus cyaneus</i> Lakeside Ceanothus	List A/Rank 1B.2/S2/-/-	Found in Chaparral and Closed-cone Coniferous Forest habitats at elevations of 656 - 3,412 feet.	N	M	There is Chaparral habitat on the property within the known elevational range of the species. The closest CNDDB record is approximately 2.5-miles to the southwest (CDFW, 2017a).
<i>Ceanothus otayensis</i> Otay Mountain Ceanothus	-/Rank 1B.2/S1/-/-	Found in Chaparral habitats on gabbroic or metavolcanic soils at elevations of 1,950 - 3,600 feet.	N	U	There are no gabbroic or metavolcanic soils mapped on the property (Bowman, 1973).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Ceanothus verrucosus</i> Wart-stemmed Ceanothus	List B/Rank 2B.2/S2/-/-	Associated with Chaparral habitats, it is frequently an indicator of Southern Maritime Chaparral. Known elevations range from 3 - 1,250 feet.	N	U	There is Chaparral habitat on the property, but the lowest elevation on the property is \pm 700-feet higher than the highest known elevation of the species.
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth Tarplant	List A/Rank 1B.1/S2/-/- CA Endemic	Found on alkaline soils in mesic habitats, such as Meadows and Seeps, Playas, and Riparian Woodlands at elevations of 0 - 1,580 feet.	N	U	There are no alkaline soils mapped on the property (Bowman, 1973).
<i>Chamaebatia australis</i> Southern Mountain Misery	List D/Rank 4.2/S4/-/-	Grows in gabbroic or metavolcanic soil in Chaparral at elevations from 987 - 2,303 feet.	N	U	There are no gabbroic or metavolcanic soils mapped on the property (Bowman, 1973).
<i>Chorizanthe leptotheca</i> Peninsular Spineflower	List D/Rank 4.2/S3/-/-	Found in xeric openings in Chamise Chaparral at elevations of 987 - 6,251 feet.	N	H	There is Southern Mixed Chaparral habitat on the property within the known elevational range of the species. This species is documented from the Alpine quad (CNPS, 2017).
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-Spined Spineflower	List A/Rank 1B.2/S3/-/-	Found on clay soils in a variety of habitats at elevations of 98 - 5,034 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Clarkia delicata</i> Delicate Clarkia	List A/Rank 1B.2/S3/-/-	Found in Chaparral and Cismontane Woodland habitats on gabbroic soils at elevations of 775 - 4,200 feet.	N	U	There are no gabbroic soils mapped on the property (Bowman, 1973).
<i>Clinopodium chandleri</i> San Miguel Savory	List A/Rank 1B.2/S2/-/-	Found on gabbroic or metavolcanic soils in a variety of habitats at elevations of 394 - 3,537 feet.	N	U	There are no gabbroic or metavolcanic soils mapped on the property (Bowman, 1973). NOTE: <i>Satureja chandleri</i> is a synonym.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer Holly	List A/Rank 1B.2/S2/-/-	Found in coastal and inland Chaparral habitats, as well as Cismontane Woodlands at elevations of 98 - 1,809 feet.	N	U	Although there are Chaparral and Cismontane Woodland habitats on the property, this species is found at elevations lower than those represented on-site.
<i>Convolvulus simulans</i> Small-Flowered Morning-Glory	List D/Rank 4.2/S4/-/-	Grows on friable clay soils in a variety of habitats in areas devoid of shrubs. Found at elevations of 98 - 2,303 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Cordylanthus rigidus</i> ssp. <i>brevibracteatus</i> Short-bracted Bird's-Beak	-/Rank 4.3/S4/-/- CA Endemic	Found in granitic openings within Chaparral, Lower Montane Coniferous Forest, Pinyon and Juniper Woodland, and Upper Montane Coniferous Forest habitats at elevations of 2,007 - 8,521 feet.	N	M	There are granitic openings within Chaparral habitat on the property within the known elevational range of the species. This subspecies is typically found in Kern and Tulare counties, but has recently (within the 30 years) been found in San Diego County (Rebman, J.P. and Simpson, M., 2006). Per the CNPS (2017), this subspecies is only found within the Alpine quad in San Diego county.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i> San Diego Sand Aster	List A/Rank 1B.1/S1/-/-	Grows in coastal sandy areas at elevations of 9 - 379 feet.	N	U	This variety of Sand Aster is found at elevations much lower than those found on the property. NOTE: The Flora of North America (Volume 20) and the 2 nd Edition of the Jepson Manual unite this variety and <i>C. f. var. linifolia</i> as a single species, <i>Corethrogyne filaginifolia</i> .
<i>Cylindropuntia californica</i> var. <i>californica</i> Snake Cholla	List A/Rank 1B.1/S1/-/-	Found in Coastal Scrub and Chaparral habitats at elevations of 98 - 494 feet.	N	U	This variety of Cholla is found at elevations much lower than those found on-site NOTE: <i>Opuntia californica</i> var. <i>californica</i> and <i>Opuntia parryi</i> var. <i>serpentina</i> are synonyms.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Deinandra conjugens</i> Otay Tarplant	List A/Rank 1B.1/S1/CE/FT	Found on clay soils in Coastal Scrub and Valley and Foothill Grassland habitats at elevations of 82 - 987 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973).
<i>Deinandra floribunda</i> Tecate Tarplant	List A/Rank 1B.2/S2/-/-	Found in Chaparral and Coastal Scrub habitats, often in washes or disturbed areas, at elevations of 230 - 4,014 feet.	N	L	There is Chaparral habitat on the property within the known elevational range of the species. However, there are no CNDDDB records within the Alpine quad (CDFW, 2017a).
<i>Deinandra paniculata</i> Paniculate Tarplant	List D/Rank 4.2/S4/-/-	Found in vernal mesic areas within Coastal Scrub, Valley and Foothill Grassland, Vernal Pool or other wetland habitats at elevations of 82 -3,093 feet.	N	L	There are wetland habitats on the property within the known elevational range of the species. However, there are no records of this species within the Alpine quad (CNPS, 2017).
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert Larkspur	List D/Rank 4.3/S4/-/-	Grows in open Sonoran Desert Scrub at elevations of 1,974 - 5,922 feet.	N	U	There is no Sonoran Desert Scrub habitat on the property. NOTE: Desert Larkspur is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Dichondra occidentalis</i> Western Dichondra	List D/Rank 4.2/S3S4/-/-	Found in Chaparral, Cismontane Woodland, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 164 - 1,645 feet.	N	U	This species is found at elevations lower than those represented on-site.
<i>Dicranostegia orcuttiana</i> Orcutt's Bird's Beak	List B/Rank 2B.1/S1/-/-	Associated with Sage Scrub habitats at elevations of 35 - 1,150 feet.	N	U	There is no Sage Scrub habitat on the property, and this species is found at elevations lower than those represented on-site. NOTE: <i>Cordylanthus orcuttianus</i> is a synonym.
<i>Diplaucus clevelandii</i> Cleveland's Bush Monkeyflower	List D/Rank 4.2/S4/-/-	Found in Chaparral, Cismontane Woodland, and Lower Montane Coniferous Forest habitats at elevations of 1,480 - 6,580 feet.	N	L	There are Chaparral and Cismontane Woodland habitats on the property within the known elevational range of the species. However, this species is not documented within the Alpine quad (CNPS, 2017). NOTE: <i>Mimulus clevelandii</i> is a synonym.
<i>Dudleya variegata</i> Variegated Dudleya	List A/Rank 1B.2/S2/-/-	Found on rocky or clay soils in Chaparral, Cismontane Woodland, Coastal Scrub and Valley and Foothill Grassland habitats at elevations of 9 - 1,909 feet.	N	U	Although there are Chaparral and Cismontane Woodland habitats on rocky sandy loams on the property, this species is found at elevations lower than those represented on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Ericameria palmeri</i> ssp. <i>palmeri</i> Palmer's Goldenbush	List B/Rank 1B.1/S2/-/-	Associated with granitic soils in Chaparral and Sage Scrub habitats. Seasonally wet/moist locales are strongly preferred. Grows at elevations of 98 - 1,974 feet.	N	L	Although there is Chaparral habitat on granitic soils on the property, this subspecies is generally found at elevations lower than those represented on-site.
<i>Eriogonum evanidum</i> Vanishing Wild Buckwheat	List A/Rank 1B.1/S1/-/-	Found at sandy sites within Chaparral, Cismontane Woodland, Lower Montane Coniferous Forest, and Pinyon and Juniper Woodland habitats at elevations are 3,619 - 7,321 feet.	N	U	This species is found at elevations much higher than those found on the property. NOTE: <i>Eriogonum foliosum</i> is a synonym.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego Button-Celery	List A/Rank 1B.1/S1/CE/FE	Typically found in Vernal Pools, but this species is also tolerant of some of the habitats adjacent to Vernal Pools, such as Coastal Scrub and Valley and Foothill Grassland habitats. Grows at elevations of 65 - 2,040 feet.	N	U	There are no Vernal Pools on or adjacent to the subject property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Erythranthe diffusa</i> Palomar Monkey Flower	List D/Rank 4.3/S3/-/-	Found in Chaparral and Lower Montane Coniferous Forest habitats on sandy or gravelly soils at elevations of 4,013 - 6,021 feet.	N	U	This species is found at elevations much higher than those represented on the property. NOTE: <i>Mimulus palmeri</i> is a synonym.
<i>Euphorbia abramsiana</i> Abrams' Spurge	-/Rank 2B.2/S2/-/-	Found in Mojavean Desert Scrub and Sonoran Desert Scrub habitats at elevations of -17 - 3,011 feet.	N	U	There are no Mojavean Desert Scrub or Sonoran Desert Scrub habitats on the property. NOTE: <i>Chamaesyce abramsiana</i> is a synonym.
<i>Ferocactus viridescens</i> San Diego Barrel Cactus	List B/Rank 2B.1/S2S3/-/-	Found in a variety of habitats, such as Sage Scrub, Chaparral, and Valley and Foothill Grassland. Often found on south-facing slopes at elevations of 9 - 1,481 feet.	N	U	This species is found at elevations lower than those represented on the subject property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Fraxinus parryi</i> Chaparral Ash	-/Rank 2B.2/S1/-/-	Found in Chaparral at elevations of 700 - 2,040 feet.	N	U	Although there is Chaparral habitat on the property within the known elevational range of the species, there are no CNDDDB records within the Alpine quad (CDFW, 2017a). In fact, the only CNDDDB record within 10-miles of the project is of a single shrub approximately 8.1-miles to the southwest.
<i>Fremontodendron mexicanum</i> Mexican Flannelbush	List A/Rank 1B.1/S1/CR/FE	Found on gabbroic, metavolcanic or serpentine soils within Chaparral, Cismontane Woodland and Closed-Cone Coniferous Forest habitats at elevations of 32 - 2,356 feet.	N	U	There are no gabbroic, serpentine, or metavolcanic soils mapped on the property (Bowman, 1973).
<i>Galium proliferum</i> Desert Bedstraw	-/Rank 2B.2/S2/-/-	Found in Joshua Tree Woodland, Mojavean Desert Scrub and Pinyon and Juniper Woodland habitats at elevations of 3,915 - 4,959 feet.	N	U	There are no Joshua Tree Woodland, Mojavean Desert Scrub, or Pinyon and Juniper Woodland habitats on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Geraea viscida</i> Sticky Geraea	List B/Rank 2B.3/S3/-/-	Found in Chaparral, often in habitat recovering from a fire and other disturbed areas, at elevations of 1,480 - 5,593 feet.	N	L	There is Chaparral habitat on the property within the known elevational range of the species. However, there are no CNDDDB records within the Alpine quad (CDFW, 2017a).
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i> Mission Canyon Bluecup	List C/Rank 3.1/S1/-/- CA Endemic	Found on mesic soils or in disturbed areas within Chaparral habitats at elevations of 1,480 - 2,300 feet.	N	L	There are disturbed areas in the Chaparral habitat on the property within the known elevational range of the species. However, there are no CNDDDB records within the Alpine quad (CDFW, 2017a).
<i>Grindelia hallii</i> San Diego Gumplant	List A/Rank 1B.2/S2/-/- CA Endemic	Found in Chaparral, Lower Montane Coniferous Forest, Meadows and Seeps, and Valley and Foothill Grassland habitats, frequently in low moist areas within meadows, at elevations of 608 - 5,742 feet.	N	U	There is Chaparral on the property within the known elevational range of the species. However, there are no meadows on-site. Also, there are no CNDDDB records of this species within the Alpine quad (CDFW, 2017a). In fact, the only CNDDDB record within 10-miles of the project is a record from 1949 in the Spring Valley area. NOTE: <i>Grindelia hirsutula</i> var. <i>hallii</i> is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Harpagonella palmeri</i> Palmer's Grapplinghook	List D/Rank 4.2/S3/-/-	Found in clay soils within Chaparral, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 65 - 3,142 feet.	Y	Observed	Although there are no clay soils mapped on the property (Bowman, 1973), and the location of the Palmer's Grapplinghook is underlain by granitic soils, approximately 1,000 individuals were documented along the western property boundary, just north of the central drainage.
<i>Hesperocyparis forbesii</i> Tecate Cypress	List A/Rank 1B.1/S2/-/-	Found on clay or gabbroic soils in Chaparral and Closed-cone Coniferous Forest habitats at elevations of 263 - 4,935 feet.	N	U	There are no gabbroic or clay soils mapped on the property (Bowman, 1973). NOTE: <i>Callitropsis forbesii</i> and <i>Cupressus forbesii</i> are synonyms.
<i>Hesperocyparis stephensonii</i> Cuyamaca Cypress	List A/Rank 1B.1/S1/-/- CA Endemic	Found on gabbroic soils within Closed-cone Coniferous Forests and Montane Chaparral at elevations of 3,405 - 5,610 feet.	N	U	There are no gabbroic soils mapped on the property (Bowman, 1973). NOTE: <i>Cupressus stephensonii</i> , and <i>Callitropsis stephensonii</i> are synonyms. Rebman lists this species as <i>Cupressus arizonica</i> .
<i>Holocarpha virgata</i> ssp. <i>elongata</i> Graceful Tarplant	List D/Rank 4.2/S3/-/- CA Endemic	Found in annual and perennial grasslands at elevations of 197 - 3,619 feet.	N	U	There are no annual or perennial grasslands on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Hordeum intercedens</i> Bobtail Barley	List C/Rank 3.2/S3S4/-/-	Occurs on alkaline flats, dry, saline streambeds, and Vernal Pool basins at elevations of 16 - 3,290 feet.	N	U	There are no alkaline flats, dry, saline streambeds, or Vernal Pools on the property. NOTE: Vernal Barley is a synonym.
<i>Horkelia truncata</i> Ramona Horkelia	List A/Rank 1B.3/S3/-/-	Found on clay, and sometimes, gabbroic soils within Chaparral and Cismontane Woodlands at elevations of 1,300 - 4,270 feet.	N	U	There are no clay or gabbroic soils mapped on the property (Bowman, 1973).
<i>Hulsea californica</i> San Diego Sunflower	List A/Rank 1B.3/S3/-/- CA Endemic	Found in Upper and Lower Montane Coniferous Forests and Chaparral habitats at elevations of 3,010 - 9,591 feet.	N	U	This species is found at elevations much higher than those represented on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Isocoma menziesii</i> var. <i>decumbens</i> Decumbent Goldenbush	List A/Rank 1B.2/S2/-/-	Associated with Sage Scrub habitats at elevations of 30 - 440 feet.	N	U	There is no Sage Scrub habitat on the property, and this variety is found at elevations much lower than those represented on-site. NOTE: The Flora of North America (volume 20) has eliminated all varieties and just calls the plant <i>Isocoma menziesii</i> . Rebman identifies the plant as <i>Isocoma menziesii</i> var. <i>menziesii</i> and calls it Spreading Goldenbush.
<i>Iva hayesiana</i> San Diego Marsh-Elder	List B/Rank 2B.2/S2/-/-	A species found in marshy habitats in slow moving waters at elevations of 32 - 1,645 feet.	N	U	This species is found at elevations lower than those represented on-site.
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern Spiny Rush	List D/Rank 4.2/S4/-/-	Found in mesic Coastal Dunes, Meadows and Seeps, and coastal Marshes and Swamps at elevations that range from 9 - 2,961 feet.	N	U	There are no Coastal Dunes, Meadows and Seeps, or Coastal Marshes and Swamps on this property in Alpine.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's Goldfields	List A/Rank 1B.1/S2/-/-	Found in Salt Marshes, Playas and Vernal Pools at elevations of 3 - 4,014 feet.	N	U	There are no Salt Marshes, Playas, or Vernal Pools on the property.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Lathyrus splendens</i> Pride-of-California	List D/Rank 4.3/S4/-/-	Found in Chaparral at elevations of 658 - 5,018 feet.	N	H	There is Chaparral habitat on the property within the known elevational range of the species. This species is documented from the Alpine quad (CNPS, 2017).
<i>Lepechinia cardiophylla</i> Heart-leaved Pitcher Sage	List A/Rank 1B.2/S2S3/-/-	In San Diego County, this species is found in Chaparral habitat on Iron Mountain at an elevation of 2,000 feet.	N	U	Although there is Chaparral habitat on the property within the known elevational range of the species, the project is located in Alpine approximately 14.2-miles to the southeast of the Iron Mountain location.
<i>Lepechinia ganderi</i> Gander's Pitcher Sage	List A/Rank 1B.3/S3/-/-	Found in a variety of habitats on metavolcanic or gabbroic soils at elevations ranging from 1,003 - 3,307 feet.	N	U	There are no metavolcanic or gabbroic soils mapped on the property (Bowman, 1973).
<i>Lepidium virginicum</i> ssp. <i>robinsonii</i> Poor Man's Pepper	List A/Rank 4.3/S3/-/-	Found in Coastal Scrub and Chaparral habitats in relatively dry, exposed locales at elevations of 3 - 2,912 feet.	N	H	There is Chaparral habitat on the property within the known elevational range of the subspecies. The closest CNDDDB records are <1-mile to the northwest and northeast (CDFW, 2017a). NOTE: <i>Lepidium virginicum</i> var. <i>menziesii</i> is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Lilium parryi</i> Lemon Lily	List A/Rank 1B.2/S3/—/—	Occurs in wet, mountainous areas at elevations of 4,013 - 9,032 feet.	N	U	This species occurs at elevations much higher than those represented on-site.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> Small-flowered Microseris	List D/Rank 4.2/S4/-/-	Found on clay soils in Cismontane Woodland, Coastal Scrub, Valley and Foothill Grassland, and Vernal Pool habitats at elevations of 49 - 3,521 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973).
<i>Monardella hypoleuca</i> ssp. <i>lanata</i> Felt-Leaved Monardella	List A/Rank 1B.2/S3/-/-	Found in Chaparral and Cismontane Woodland habitats on sandy soils at elevations of 987 – 5,182 feet.	N	H	There are Chaparral and Cismontane Woodland habitats on the sandy loams at the project location within the known elevational range of the subspecies. The closest CNDDB record is 0.6-mile to the northeast (CDFW, 2017a).
<i>Monardella viminea</i> Willow Monardella	List A/Rank 1B.1/S1/CE/FE CA Endemic	A species found in canyons and washes within riparian, Sage Scrub, and Chaparral habitats at elevations of 148 - 757 feet.	N	U	There are canyons within Chaparral habitat on the property. However, this species is found at elevations much lower than those represented on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Myosurus minimus</i> ssp. <i>Apus</i> . Little Mouseltail	List C/Rank 3.1/S2/-/-	Found in Vernal Pools and occasionally in Valley and Foothill Grasslands adjacent to Vernal Pools at elevations of 65 – 2,106 feet.	N	U	There are no Vernal Pools on or adjacent to the subject property.
<i>Nama stenocarpa</i> Mud Nama	List B/Rank 2B.2/S1S2/-/-	This species is found on the muddy embankments of ponds, lakes, and occasionally rivers. Grows at elevations of 16 - 1,645 feet.	N	L	There is an old reservoir along the western edge of the property, but this species is found at elevations lower than those represented on-site.
<i>Navarretia fossalis</i> Spreading Navarretia	List A/Rank 1B.1/S2/-/FT	In San Diego County, the preferred habitat of this species is Vernal Pools. Found at elevations of 98 - 2,155 feet.	N	U	There are no Vernal Pools on the property.
<i>Nolina cismontana</i> Chaparral Nolina	List A/Rank 1B.2/S3/-/- CA Endemic	Found in Chaparral and Coastal Scrub habitats on gabbroic or sandstone soils at elevations of 460 - 4,195 feet.	N	U	There are no gabbroic or sandstone soils mapped on the property (Bowman, 1973). NOTE: Chaparral Beargrass is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Nolina interrata</i> Dehesa Nolina	List A/Rank 1B.1/S2/CE/-	Found in Chaparral habitats on gabbroic or metavolcanic soils at elevations of 592 - 2,813 feet.	N	U	There are no gabbroic or metavolcanic soils mapped on the property (Bowman, 1973).
<i>Ophioglossum californicum</i> California Adder's-Tongue	List D/Rank 4.2/S4/-/-	Found on the periphery of Vernal Pools and seeps and other vernal moist locales at elevations of 197 - 1,728 feet.	N	U	There are no Vernal Pools on the property.
<i>Packera ganderi</i> Gander's Ragwort	List A/Rank 1B.2/S2/CR/- CA Endemic	A species found in Chaparral habitat on gabbroic soils at elevations of 1,316 - 3,948 feet.	N	U	There are no gabbroic soils mapped on the property (Bowman, 1973). NOTE: <i>Senecio ganderi</i> is a synonym.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i> Golden-rayed Pentachaeta	List D/Rank 4.2/S3/-/-	Found in Chaparral, Cismontane Woodland, Coastal Scrub, Lower Montane Coniferous Forest, and Valley and Foothill Grassland habitats at elevations of 263 - 6,087 feet.	N	H	There are Chaparral and Cismontane Woodland habitats on the property within the known elevational range of the subspecies. Also, this subspecies is documented from the Alpine quad (CNPS, 2017). NOTE: The County List D only refers to the specific epithet, not to any subspecies.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Pickeringia montana</i> var. <i>tomentosa</i> Woolly Chaparral Pea	-/Rank 4.3/S3S4/-/-	Found on gabbroic, granitic, or clay soil within Chaparral habitat at elevations of 0 – 5,593 feet.	N	H	There are granitic soils within Chaparral habitat on the property within the known elevational range of this variety. Also, this subspecies is documented from the Alpine quad (CNPS, 2017).
<i>Piperia colemanii</i> Coleman's Rein Orchid	Rank 4.3/S4/-/- CA Endemic	Found in Chaparral and Lower Montane Coniferous Forest at elevations of 3,948 - 7,567 feet.	N	U	There is Chaparral on the property within the known elevational range of the species. However, this species is generally found in counties further north, such as Butte, Tulare, Fresno and Shasta. Per the CNPS (2017), this species has been documented in San Diego only from the Viejas Mountain quad.
<i>Piperia cooperi</i> Chaparral Rein-Orchid	List D/Rank 4.2/S3/-/-	Found in Chaparral, Cismontane Woodland, and Valley and Foothill Grassland habitats at elevations of 49 - 5,215 feet.	Y	Observed	This species was found during a previous biological survey in 2007 by RC Biological Consulting, Inc. According to the data collected, only one individual orchid was found in the extreme southern portion of the site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Polygala cornuta</i> var. <i>fishiae</i> Fish's Milkwort	List D/Rank 4.3/S4/-/-	Found in Chaparral, Riparian Woodland, or Cismontane Woodland with Coast Live Oaks at elevations of 329 - 3,290 feet.	Y	Observed	This species was found during a previous biological survey in 2007 by RC Biological Consulting, Inc. According to the data collected, five plants were found in the central drainage.
<i>Pseudognaphalium leucocephalum</i> White Rabbit-Tobacco	-/Rank 2B.2/S2/-/-	Found in Chaparral, Coastal Scrub, Riparian Woodland and Cismontane Woodland habitats at elevations ranging from 0 - 6,900-feet.	N	L	There are Chaparral and Cismontane Woodland habitats on the property within the known elevational range of the species. However, there are no CNDDDB records within the Alpine quad (CDFW, 2017a). NOTE: <i>Gnaphalium leucocephalum</i> is a synonym.
<i>Quercus cedrosensis</i> Cedros Island Oak	List B/Rank 2B.2/S1/-/-	Found in Closed-cone Coniferous Forest, Chaparral, and Coastal Scrub at elevations of 838 - 3,159 feet.	N	L	There is Chaparral habitat on the property within the known elevational range of the species. However, there are no CNDDDB or CNPS records of this species within the Alpine quad (CDFW, 2017a and CNPS, 2017).
<i>Quercus dumosa</i> Nuttall's Scrub Oak	List A/Rank 1B.1/S3/-/-	A coastal form of the Scrub Oak found in Chaparral, Closed-cone Coniferous Forest, and Coastal Scrub habitats at elevations of 49 - 1,316 feet.	N	U	This species of scrub oak is found at elevations lower than those represented on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Quercus engelmannii</i> Engelmann Oak	List D/Rank 4.2/S3/-/-	Found in Chaparral, Cismontane Woodland, Riparian Woodland and Valley and Foothill Grassland habitats at elevations of 164 - 4,277 feet.	Y	Observed	There are Chaparral, Riparian Woodland, and Cismontane Woodland habitats on the property. This species was mostly concentrated within the drainages containing the Southern Coast Live Oak Riparian Forest.
<i>Ribes canthariforme</i> Moreno Currant	List A/Rank 1B.3/S2/-/- CA Endemic	Found in Chaparral and Riparian Scrub habitats at elevations of 1,118 - 3,948 feet.	N	M	There is Chaparral habitat on-site within the known elevational range of the species. The closest CNDDB record is approximately 4.7-miles to the southeast (CDFW, 2017a).
<i>Romneya coulteri</i> Coulter's Matilija Poppy	List D/Rank 4.2/S4/-/-	Found in Chaparral, Coastal Scrub, and Desert Washes at elevations of 65 - 3,948 feet.	N	L	Although there is Chaparral on the property within the known elevational range of the species, there are no CNPS records within the Alpine quad (CNPS, 2017).
<i>Salvia munzii</i> Munz's Sage	List B/Rank 2B.2/S2/-/-	Found in Coastal Scrub and Chaparral habitats at elevations of 394 - 3,504 feet.	N	L	There is Chaparral habitat within the known elevational range of the species. However, the only CNDDB record within the Alpine quad is located 2.6-miles to the southwest at the intersection of Japatul Lane and Via Asoleado (CDFW, 2017a). According to the source who submitted this record to the CNDDB, this colony was possibly planted by Caltrans.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i> Southern Mountains Skullcap	List A/Rank 1B.2/S3/-/- CA Endemic	Found in gravelly soils on stream banks, or in mesic sites within Chaparral, Oak Woodland, or Pine Woodland habitats at elevations of 1,398 - 6,580 feet.	N	L	There are rocky sand loams with Chaparral and Oak Woodlands on the property within the known elevational range of the subspecies. However, there are no CNDDB or CNPS records of this skullcap in the Alpine quad (CDFW, 2017a and CNPS, 2017).
<i>Selaginella cinerascens</i> Ashy Spike-Moss	List D/Rank 4.1/S3/-/-	Found in undisturbed Chaparral and Diegan Sage Scrub. Rarely inhabits disturbed soils. Grows at elevations of 66 - 2,106 feet.	N	L	There is undisturbed Chaparral habitat on the property within the known elevational range of this species. However, this species is not documented within the Alpine quad (CNPS, 2017).
<i>Senecio aphanactis</i> Chaparral Ragwort	List B/Rank 2B.2/S2/-/-	Found on alkaline soils in Chaparral, Coastal Scrub and Cismontane Woodland habitats. Grows at elevations of 49 - 2,632 feet.	N	U	There are no alkaline soils mapped on the property (Bowman, 1973). Also, there are no CNPS or CNDDB records of this species within the Alpine quad (CNDDB, 2017a and CNPS, 2017). NOTE: Rayless Ragwort is a synonym.
<i>Senna covesii</i> Coves' Cassia	List B/Rank 2B.2/S3/-/-	Found in Sonoran Desert Scrub on slopes and in washes at elevations of 1,003 - 3,521 feet.	N	U	There is no Sonoran Desert Scrub habitat on the property. NOTE: <i>Cassia covesii</i> is a synonym.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Sibaropsis hammittii</i> Hammitt's Clay-Cress	List A/Rank 1B.2/S2/-/- CA Endemic	Found in Chaparral and Valley and Foothill Grassland habitats on clay soils at elevations ranging from 2,368 – 3,504 feet.	N	U	There are no clay soils mapped on the property (Bowman, 1973), and this species is found at elevations slightly higher than those found on-site.
<i>Sphenopholis obtusata</i> Prairie Wedge Grass	-/Rank 2B.2/S2/-/-	Found in moist sites within Cismontane Woodland habitats at elevations of 987 – 6,580 feet.	N	U	Although there is Cismontane Woodland habitat on-site within the known elevational range of the species, the only CNDDDB record in San Diego County is an occurrence within the Cuyamaca Peak quadrangle (CDFW, 2017a). NOTE: According to Rebman and Simpson (2006), this species is a new find in San Diego County.
<i>Stemodia durantifolia</i> Purple Stemodia	List B/Rank 2B.1/S2/-/-	A species of mesic, sandy areas in Sonoran Desert Scrub. Grows at elevations of 592 - 987 feet.	N	U	There is no Sonoran Desert Scrub habitat on the property. Also, this species is found at elevations much lower than those represented on-site.

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Stipa diegoensis</i> San Diego County Needle Grass	List D/Rank 4.2/S4/-/-	Found in Chaparral and Coastal Scrub habitats on rocky soils at elevations of 32 – 2,632 feet.	N	H	There is Chaparral habitat on the property within the known elevational range of the species. Also, this species has been documented from the Alpine quad (CNPS, 2017). NOTE: <i>Achnatherum diegoensis</i> is a synonym.
<i>Streptanthus bernardinus</i> Laguna Mountains Jewelflower	List D/Rank 4.3/S3S4/-/- CA Endemic	Found in Chaparral or Lower Montane Coniferous Forrest habitats on clay or decomposed granite soils at elevations of 4,737 -8,225 feet.	N	U	This species is found at elevations much higher than those found on-site.
<i>Suaeda esteroa</i> Estuary Seablite	List A/Rank 1B.2/S2/-/-	Found in Coastal Salt Marshes at elevations of 0 - 17 feet.	N	U	There are no Coastal Salt Marshes on this inland property in Alpine.
<i>Symphyotrichum defoliatum</i> San Bernardino Aster	-/Rank 1B.2/S2/-/- CA Endemic	Found in a variety of habitats near ditches, streams or springs. Known elevations range from 6 - 6,711 feet.	N	L	There are a few drainages on-site within the known elevational range of the species. However, this species is not documented within the Alpine quad (CNPS, 2017).

Scientific Name Common Name ²	Sensitivity Code and Status ³	Habitat Preference	Found On-site (Y or N)	Potential On-site ⁴	Factual Basis for Potential
<i>Tetracoccus dioicus</i> Parry's Tetracoccus	List A/Rank 1B.2/S2/-/-	Found in Chaparral and Sage Scrub habitats on stony, decomposed gabbroic soil at elevations ranging from 493 – 3,290 feet.	N	U	There are no gabbroic soils mapped on the property (Bowman, 1973).
<i>Triquetrella californica</i> Coastal Triquetrella	-/Rank 1B.2/S2/-/-	Grows within 100 feet of the coast in Coastal Bluff Scrub and Coastal Scrub habitats at elevations of 32 – 329 feet.	N	U	There are no Coastal Bluff Scrub or Coastal Scrub habitats within this inland property in Alpine.
<i>Viguiera laciniata</i> San Diego County Viguiera	List D/Rank 4.3/S4/-/-	Found in Chaparral and Coastal Scrub habitats at elevations of 197-2,468 feet.	N	H	There is Chaparral habitat on the property within the known elevational range of the species. Also, this species is documented from the Alpine quad (CNPS, 2017).
<i>Xanthisma junceum</i> Rush-like Bristleweed	List D/Rank 4.3/S4/-/-	Found in Chaparral and Coastal Scrub habitats at elevations of 789 – 3,290 feet.	N	H	There is Chaparral habitat on the property within the known elevational range of the species. Also, this species is documented from the Alpine quad (CNPS, 2017). NOTE: <i>Haplopappus junceus</i> and <i>Machaeranthera juncea</i> are synonyms.

¹ This plant list was generated by the nine quad search function of the on-line California Native Plant Society (CNPS) inventory. This list was augmented with plants from the San Diego County Sensitive Plant Lists A, B, C, and D and a nine quad search of the California Natural Diversity Data Base (CNDDB).

² The Common Names were taken from Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J., and Wilken, D.H. eds. 2012. The Jepson Manual Vascular Plants of California, 2nd Edition. University of California Press, Berkeley, xxii + 1568 pp.

³ The first line in the “Sensitivity Code and Status” column shows the California Rare Plant Rank with threat code extensions/the state ranking of the California Natural Diversity Database (CNDDB) with the threat rank extension/the California state threatened and endangered status code/the federal threatened and endangered status code. The second line in the “Sensitivity Code and Status” column identifies whether the species is a California Endemic as identified by the CNPS or not (blank second line). Following is a key to the codes in the table.

Key to the California Rare Plant Ranking System

Rare Plant Rank 1A — Extirpated in California, Rare or Extinct Elsewhere

Rare Plant Rank 1B — Rare, Endangered

Rare Plant Rank 2A — Extirpated in California, Common Elsewhere

Rare Plant Rank 2B — Endangered in California

Rare Plant Rank 3 — Needs Review

Rare Plant Rank 4 — Uncommon in California

Key to the California Rare Plant Rank Threat Code Extensions

.1 — Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2 — Fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

.3 — Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Key to the State Ranking of the CNDDB

S1 — Critically Imperiled — Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province

S2 — Imperiled — Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province

S3 — Vulnerable — Vulnerable in the state due to restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation

S4 — Apparently Secure — Uncommon but not rare; some cause for long-term concern due to declines or other factors

S5 — Secure — Common, widespread, and abundant in the state

? — By adding a question mark, it represents uncertainty. For example, a S2? means more certainty than S2S3, but less certainty than S2

Two S Ranks — Two S Ranks represent a range of values. For example, a S2S3 means the rank is somewhere between S2 and S3.

SXC — All sites in California are extirpated, but the species exists in cultivation

SH — All California sites are historical

Key to the Threat Rank Extensions of S1, S2 or S3 (if assigned)

- .1 — very threatened
- .2 — threatened
- .3 — no current threats are known

State and Federal Threatened and Endangered Species Status Codes

- CR — State of California listed as rare
- CE — State of California listed as endangered
- CT — State of California listed as threatened
- PT — Proposed for Listing as Threatened under the Federal Endangered Species Act
- PE — Proposed for Listing as Endangered under the Federal Endangered Species Act
- FC — Candidate for Listing under the Federal Endangered Species Act
- FE — Designated Endangered under Federal Endangered Species Act
- FT — Designated as Threatened under the Federal Endangered Species Act

⁴ The “Potential On-site” column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

- Observed — Individuals of this species were found within the bounds of the site
- H — The potential for occurrence is “high”. Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.
- M — The potential for occurrence is “medium”. Habitats and conditions on-site are considered possible for the species.
- L — The potential for occurrence is “low”. The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but its occurrence can not be precluded.
- U — The potential for occurrence is “unlikely”. The habitat requirements of the species are not present on the subject property.

Table 4

**Sensitive Wildlife Species Known to Occur Within an
Approximate 10-mile Radius¹ of the Alpine 21 Property (TM 5431)**

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Insects					
<i>Bombus crotchii</i> Crotch Bumble Bee	—, —/—/—	Food plants include <i>Antirrhinum</i> spp., <i>Phacelia</i> spp., <i>Clarkia</i> spp., <i>Dendromecon</i> spp., <i>Eschscholzia</i> ssp., and <i>Eriogonum</i> spp.	N	U	There are <i>Antirrhinum nuttallianum</i> , and <i>Eriogonum fasciculatum</i> plants on-site. The closest CNDDDB record is 15-miles to the southwest and is from 1979 (CDFW, 2017a).
<i>Callophrys thornei</i> Thorne's Hairstreak	Group 1, —/—/BLM Sensitive SD County Endemic	Restricted to the vicinity of Otay Mountain. Found in Tecate Cypress groves in woody Chaparral slopes. Larval host plant is Tecate Cypress (<i>Callitropsis forbesii</i>).	N	U	The property is in Alpine and there are no Tecate Cypress trees on-site. NOTE: <i>Mitoura thornei</i> is a synonym.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Euphydryas editha quino</i> Quino Checkerspot Butterfly	Group 1, FE/—/X-CI	The Quino is found in a variety of open canopy habitats where the butterfly's larval host plants are found. These host plants include, Dot-seed Plantain (<i>Plantago erecta</i>), Desert Plantain (<i>Plantago patagonica</i>), Owl's Clover (<i>Castilleja exserta</i>), Coulter's Snapdragon (<i>Antirrhinum coulterianum</i>), Chinese Houses (<i>Collinsia heterophylla</i>), and Thread-leaved Bird's Beak (<i>Cordylanthus rigidus</i>). It is precluded from closed canopy situations and is a hilltopping species.	N	U	A federal protocol survey for this species was conducted on the property in 2016. Populations of the primary host plant, <i>Plantago erecta</i> were noted on-site. However, the protocol survey was negative for the butterfly.
<i>Halictus harmonius</i> Harmonius Halictid Bee	—, —/—/X-CI	No habitats per se, but from the one known location in San Diego County, this bee was collected from the flowers of <i>Chorizanthe procumbens</i> , <i>Calochortus splendens</i> , <i>Lotus scoparius</i> , <i>Eriophyllum confertiflorum</i> , <i>Eriogonum fasciculatum</i> , and <i>Adenostoma fasciculatum</i> .	N	U	Found mostly in San Bernardino and Riverside Counties. The one CNDDDB record for this species in San Diego County is within the Descanso quad (CDFW, 2017a).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Lycaena hermes</i> Hermes Copper Butterfly	Group 1, — /—/—	Associated closely with the larval food plant, Redberry (<i>Rhamnus crocea</i>). Recent studies indicate that the butterfly prefers those Redberry that are roughly 18-years and older.	N	U	No Redberry shrubs were noted on the property.
Crustaceans					
<i>Branchinecta sandiegonensis</i> San Diego Fairy Shrimp	Group 1, FE/—/—	A Vernal Pool obligate.	N	U	There are no Vernal Pools on the property.
Amphibians					
<i>Anaxyrus californicus</i> Arroyo Southwestern Toad	Group 1, FE/SSC/—	Found primarily in the foothills and mountains along stream courses that afford open, sunny sandbars.	N	U	The central drainage only carries water seasonally and this drainage contains a dense canopy. The closest known occurrence of Arroyo Toads is 2.7-miles to the southeast at the upper end of Loveland Reservoir along the Sweetwater River (CDFW, 2017a). NOTE: <i>Bufo miocroscaphus californicus</i> and <i>Bufo californicus</i> are synonyms.
<i>Spea hammondi</i> Western Spadefoot Toad	Group 2, — /SSC/BLM Sensitive	A cryptic species, this toad probably occurs throughout the coastal plain and foothills, anywhere ephemeral water sources develop.	N	H	The central drainage carries water seasonally and the closest CNDDb record of this species is 1-mile to the southwest (CDFW, 2017a). NOTE: <i>Spea scaphiopus hammondi</i> is a synonym.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Taricha torosa</i> Coast Range Newt	Group 2, —/SSC/—	Found in creeks surrounded by Oak Woodland, Sage Scrub, and Chaparral habitats.	N	L	The central drainage is a seasonal one surrounded by Coast Live Oak Riparian Woodland and Southern Mixed Chaparral. However, the closest CNDDDB record is 9.8-miles to the northeast in the Cleveland National Forest (CDFW, 2017a).
Reptiles					
<i>Anniella pulchra pulchra</i> Silvery Legless Lizard	Group 2, —/SSC/FS Sensitive	Occurs throughout the County (except for the low desert) where it is fossorial in soft soils and deep leaf litters. Some soil moisture is preferred.	N	U	The soils on-site are rocky loams, but there are some areas along the drainages with deep leaf litter. However, only one CNDDDB record was found within 10-miles of the property. This CNDDDB record is of a single specimen noted in 1995 approximately 8-miles to the northwest in Lakeside (CDFW, 2017a).
<i>Aspidoscelis hyperythra</i> Orange-throated Whiptail	Group 2, —/WL/—	Occupies scrub habitats on the coastal plain and lower foothills where Subterranean Termites (<i>Reticulitermes</i> sp.), the principal prey species, is found. Shrub cover with openings are required for thermoregulation.	Y	Observed	Nine individuals of this species were noted in the northern half of the site during the 2/25/16, 2/27/16, 3/17/16 and 4/5/16 site visits. NOTE: Synonyms are <i>Aspidoscelis hyperythrus beldingi</i> and <i>Cnemidophorus hyperythrus</i> .

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Aspidoscelis tigris stejnegeri</i> Coastal Western Whiptail	Group 2, —/SSC/—	Occupies scrub habitats on the coastal plain and lower foothills where shrub cover with openings is required for thermoregulation.	Y	Observed	One individual Coastal Western Whiptail was observed just north of the central drainage along the western property boundary during the 3/20/16 visit. NOTE: A synonym is <i>Cnemidophorus tigris multiscutatus</i> .
<i>Coluber fuliginosus</i> Baja California Coachwhip	—, —/SSC/—	Found in open areas within Grassland and Coastal Sage Scrub.	N	U	There are no Grasslands or Sage Scrub habitats on the property.
<i>Crotalus ruber</i> Red Diamond Rattlesnake	Group 2, —/SSC/FS Sensitive	In a variety of habitats, although most frequently found in Sage Scrub and Chaparral. It is found throughout the County except for the low desert.	N	M	There is Chaparral habitat on the property, but the closest CNDDDB record is 1.5-miles to the northwest (CDFW, 2017a).
<i>Diadophis punctatus similis</i> San Diego Ringneck Snake	Group 2, —/—/FS Sensitive	In San Diego, this snake is found in a variety of habitats from the coast to the mountains. It is typically found under rotting logs, bark, rocks and damp leaves.	N	L	There are boulders/rocks under which this snake could be found. However, the closes CNDDDB record is 9.1-miles to the northwest (CDFW, 2017a).
<i>Emys marmorata</i> Southwestern Pond Turtle	Group 1, —/SSC/FS and BLM Sensitive	Found in environments where water persists year-round. It has also been found at two drainages in the desert. It prefers lakes, streams, ponds or other areas with emergent or floating vegetation and often basks on rocks or protruding logs.	N	U	There central drainage only carries water seasonally. NOTE: Synonyms are <i>Clemmys marmorata pallida</i> and <i>Actinemys marmorata pallida</i> .

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Phrynosoma blainvillii</i> San Diego Horned Lizard	Group 2, —/SSC/ BLM Sensitive	Found throughout the County (except the low deserts) anywhere the primary prey species, harvester ants (<i>Pogonomyrmex</i> sp. and <i>Messor</i> sp.) are found. It requires some openings in vegetation for thermoregulation.	Y	Observed	Three individuals were seen in the northeast portion of the site during the 4/5/16 visit. NOTE: <i>Phrynosoma coronatum</i> is a synonym.
<i>Plestiodon skiltonianus interparietalis</i> Coronado Island Skink	Group 2, — /SSC/BLM Sensitive	In a variety of habitats ranging from coastal scrub, to Chaparral and forested slopes, into the denser desert scrub and Pinyon-Juniper Woodlands.	N	L	There is Chaparral habitat on the property. However, the closest CNDDDB record is 6.5-miles to the southeast (CDFW, 2017a). NOTE: A synonym is <i>Eumeces skiltonianus interparietalis</i> .
<i>Salvadora hexalepis virgulata</i> Coast Patch-nosed Snake	Group 2, —/SSC/—	Found in arid Sage Scrub and Chaparral habitats.	N	M	There is Chaparral habitat on the property. However, the closest CNDDDB record is 2.5-miles to the southeast (CDFW, 2017a).
<i>Thamnophis hammondi</i> Two-striped Garter Snake	Group 1, —/SSC/FS and BLM Sensitive	An aquatic snake found in association with fluvial and lacustrine environments, even cattle tanks. Aestivating individuals may be found some distance from water sources.	N	M	The central drainage carries water seasonally. However, the closest CNDDDB record is 5.4-miles to the southeast (CDFW, 2017a).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Mammals					
<i>Antrozous pallidus</i> Pallid Bat	Group 2, —/SSC/FS and BLM Sensitive; WBWG High Priority	A bat that feeds on the ground (Jerusalem Crickets and scorpions are typical fare). This species will roost in any cavity (natural or man-made) that affords a considerable modicum of darkness.	U	L	There are suitable roosting sites on-site, but the closest CNDDDB record is 6.2-miles to the southwest (CDFW, 2017a).
<i>Bassariscus astutus</i> Ringtail	Group 2, —/—/—	Found in brushy, wooded areas, generally at lower and middle elevations. The Ringtail is especially common in foothill canyons. Less common in the high mountains, but is known to live up to 2,600 m.	N	L	The Chaparral and Coast Live Oak Riparian Forest habitats on-site provide brushy and/or wooded areas suitable for this species.
<i>Chaetodipus californicus femoralis</i> Dulzura California Pocket Mouse	Group 2, —/SSC/—	Frequent in arid Chaparral-Grassland edges in the foothills and lower mountain slopes of the County.	N	L	There is Chaparral habitat on the property, but no Chaparral-Grassland edges. Also, the closest CNDDDB record is 4.2-miles to the northwest (CDFW, 2017a).
<i>Chaetodipus fallax fallax</i> Northwestern San Diego Pocket Mouse	Group 2, —/SSC/—	Found in Coastal Sage Scrub, Sage Scrub/grassland ecotones and Chaparral communities. Found in open, sandy areas.	N	L	There is Chaparral habitat on the property. However, the closest CNDDDB record is 7.2-miles to the southwest (CDFW, 2017a).
<i>Choeronycteris mexicana</i> Mexican Long-tongued Bat	Group 2, — /SSC/WBWG High Priority	This bat feeds on the nectar of night-blooming succulents. Occurs occasionally in extreme southern California at the northern edge of its range. Roosts in caves and buildings.	N	U	There are no caves or buildings on the property.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Corynorhinus townsendii</i> Townsend's Big-eared Bat	Group 2, — /SSC/BLM Sensitive; FS Sensitive; WBWG High Priority	Associated with Desert Scrub and Pinyon and Juniper Woodlands. It roosts in caves or man-made structures.	N	U	There are no caves or man-made structures on the property.
<i>Eumops perotis californicus</i> Greater Western Mastiff Bat	Group 2, — /SSC/BLM Sensitive; WBWG High Priority	Frequently associated with cliffs or abandoned buildings that afford a considerable vertical drop from the roost to become airborne.	N	U	There are no cliffs or abandoned buildings on the property.
<i>Felis concolor</i> Mountain Lion	Group 2, —/—/—	The Mountain Lion prefers habitats with sufficient vegetative cover and ample prey including, deer, rabbits, squirrels, skunks, and other mammals.	N	M	There is suitable habitat and prey on-site, but the property is surrounded by development and Interstate 8.
<i>Lasiurus blossevillii</i> Western Red Bat	Group 2, —/SSC/FS Sensitive; WBWG High Priority	Found in Cismontane Woodland, Lower Montane Coniferous Forest, Riparian Forest, and Riparian Woodland habitats. Roosts primarily in trees.	N	M	There are Cismontane Woodland and Riparian Forest habitats on the property with trees for roosting. However, the closest CNDDDB record is 5.1-miles to the southwest (CDFW, 2017a).
<i>Lasiurus cinereus</i> Hoary Bat	—, —/—/WBWG Medium Priority	Seasonally found in forested areas in proximity to water.	N	L	There is Coast Live Oak Riparian Forest habitat along the central drainage that carries water seasonally. Also, the closest CNDDDB record is 11.5-miles to the southwest along Hollenbeck Creek (CDFW, 2017a).

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Lasiurus xanthinus</i> Western Yellow Bat	—, —/SSC/WBWG High Priority	Found in Valley Foothill Riparian, Desert Riparian, Desert Wash, and Palm Oasis habitats. Roosts in trees, particularly palm trees.	N	L	There is Coast Live Oak Riparian Forest habitat along the drainages on-site, but there are no Palm trees. The closest CNDDDB record is 8.3-miles to the northwest and this record was of a single specimen collected in 1979 (CDFW, 2017a).
<i>Lepus californicus bennettii</i> San Diego Black-tailed Jackrabbit	Group 2, —/SSC/—	Found in a variety of habitats throughout the County, but requires open or semi-open vegetation.	N	U	The habitats on-site are too closed to anticipate this species.
<i>Macrotus californicus</i> California Leaf-nosed Bat	Group 2, —/SSC/ FS and BLM Sensitive; WBWG High Priority	Found in the arid extreme southern regions of California. This bat roosts in buildings, mines and caves.	N	U	There are no buildings, mines or caves on-site.
<i>Myotis ciliolabrum</i> Small-footed Myotis	Group2, —/—/BLM Sensitive; WBWG Medium Priority	Roosts alone or in small groups in rock crevices, mines, caves, or buildings.	N	M	There are no mines, caves or buildings, but there are plenty of rock crevices for roosting. The closest CNDDDB record is 2.5- miles to the southeast (CDFW, 2017a).
<i>Myotis evotis</i> Long-eared Myotis	Group 2, —/—/BLM Sensitive; WBWG Medium Priority	Roosts in caves. Nursery colonies are found in buildings and crevices and spaces under bark and snags. Associated with brush, woodland and forest habitats, but prefers those habitats to contain conifers.	N	U	There are no caves on the property, nor are there any coniferous forests.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Myotis yumanensis</i> Yuma Myotis	Group 2, —/—/BLM Sensitive; WBWG Low to Medium Priority	This species roosts in caves and man-made structures, and is closely associated with water sources.	N	U	There are no caves or man-made structures on the property.
<i>Neotoma lepida intermedia</i> San Diego Desert Woodrat	Group 2, —/SSC/—	An inhabitant of Sage Scrubs and Chaparral, especially with yuccas and cacti. Typical nests are embedded in rock crevices and partially underground.	N	M	There is Southern Mixed Chaparral on the property with yuccas and cacti. The closest CNDDDB record is 7.2-miles to the southwest (CDFW, 2017a).
<i>Nyctinomops femorosaccus</i> Pocketed Free-tailed Bat	Group 2, —/SSC/— ;WBWG Medium Priority	Roosting in a variety of situations, this species is associated with Desert Scrub and Pinyon and Juniper Woodlands.	N	U	There are no Desert Scrub or Pinyon and Juniper Woodland habitats on-site.
<i>Nyctinomops macrotis</i> Big Free-tailed Bat	Group 2, — /SSC/WBWG Medium to High Priority	Roosts in high cliffs and rocky outcrops.	N	L	There are rocky outcrops on-site. The closest CNDDDB record is 8.4-miles to the northwest of two specimens collected in 1989 (CDFW, 2017a).
<i>Odocoileus hemionus</i> Southern Mule Deer	Group 2, —/—/—	Found in habitats with sufficient vegetative cover.	N	L	There is plenty of suitable habitat on-site, but no signs (pellets or tracks) were observed on the property.
<i>Taxidea taxus</i> American Badger	Group 2, —/SSC/—	A fossorial species of open deserts and grassland habitats.	N	U	There are no desert or grassland habitats on-site.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
Birds					
<i>Accipiter cooperii</i> Cooper's Hawk (nesting)	Group 1, —/WL/—	Nesting Cooper's generally use taller trees, including several horticultural species and native Oaks.	Y	Observed	Individuals were seen as overflights in the northern portion of the property during the 5/16/16 and 3/17/16 surveys.
<i>Agelaius tricolor</i> Tricolored Blackbird (nesting colonies only)	Group 1, BCC/SSC/BLM Sensitive	Breeding colonies are limited to ponds with adjacent, undisturbed foraging habitat.	N	U	There is an area along the western property boundary that contains open water in certain years, but no constant ponding with suitable nesting habitat for this species.
<i>Aimophila ruficeps</i> ssp. <i>canescens</i> Rufous-crowned Sparrow	Group 1, —/WL/—	This species nests in Sage Scrub, open or burned Chaparral, and in Non-Native Grasslands with scattered shrubs.	Y	Observed	An individual was heard and seen in the northeastern portion of the property on the rocky, steep slopes during the 2/27/16 site visit. NOTE: Southern California Rufous-crowned Sparrow is a synonym.
<i>Ammodramus savannarum</i> Grasshopper Sparrow (nesting)	Group 1, —/SSC/—	Found in Native, and to a lesser extent, Non-Native Grasslands.	N	U	There are no Native or Non-Native Grasslands on the property.
<i>Aquila chrysaetos</i> Golden Eagle (nesting and wintering)	Group 1, —/WL; Fully Protected/BLM Sensitive	The Golden Eagle nests on cliff ledges and forages in nearby grassland, Sage Scrub or Chaparral.	N	U	There are no suitable nest sites on the property.
<i>Artemisiospiza belli belli</i> Bell's Sage Sparrow	Group 1, —/WL/—	This species prefers Sage Scrub and Chaparral habitats with an open canopy and areas of bare soil.	N	M	There is Chaparral habitat on-site with areas of bare soil in between shrubs. Per Unitt (2004), this subspecies probably breeds in the area. NOTE: <i>Amphispiza belli belli</i> is a synonym.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Buteo swainsoni</i> Swainson's Hawk	Group 1, —/CT/ FS Sensitive	Found on grasslands and farmlands. Nests in isolated trees. Usually solitary, but migrates in large flocks and large numbers concentrate at migration points. The Borrego Valley is on a migration corridor, the birds stopping to roost in strips of tamarisk trees and at nurseries.	N	U	There are no grasslands or farmlands on the property which is in Alpine, not in the Borrego Valley.
<i>Campylorhynchus brunneicapillum sandiegensis</i> Coastal Cactus Wren	Group 1, BCC/SSC/FS Sensitive	Found in association with stands of <i>Opuntia</i> sp. and/or <i>Cylindropuntia</i> sp. along the coastal strip and lower foothills.	N	U	Although <i>Opuntia</i> cacti were noted on the property, there were no large stands sufficient to provide habitat for this species.
<i>Cathartes aura</i> Turkey Vulture	Group 1, —/—/—	This species nests in rock crevices mainly in the mountains of San Diego County. However, non-breeders assemble in communal roosts elsewhere in the County.	N	L	There are some suitable rock crevices on-site. Per Unitt (2004), breeding is possible in this area.
<i>Elanus leucurus</i> White-tailed Kite (nesting)	Group 1, —/Fully Protected/—	This species nests in tall trees adjacent to foraging habitat that contains its primary prey, the California Vole (<i>Microtus californicus</i>).	N	U	Although there are tall trees on-site that could provide nest sites, there are no adjacent grasslands in which the California Vole would be found. NOTE: <i>Elanus caeruleus</i> is a synonym.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Empidonax traillii extimus</i> Southwestern Willow Flycatcher (nesting)	Group 1, FE/CE/—	This species is restricted to wide riparian habitats, generally with flowing water.	N	U	There are no wide riparian habitats dominated by willows on-site, only narrow Coast Live Oak Riparian Forest habitat with a few scattered willows.
<i>Eremophila alpestris actia</i> California Horned Lark	Group 2, —/WL/—	A species of open (often disturbed), arid habitats, such as grasslands, coastal strand, and sandy deserts.	N	U	There are no grasslands or sandy deserts on this property in Alpine.
<i>Falco mexicanus</i> Prairie Falcon (nesting)	Group 1, —/WL/—	This falcon nests on cliff ledges, and forages in open desert or grassland.	N	U	The site does not contain appropriate nesting habitat.
<i>Icteria virens</i> Yellow-breasted Chat (nesting)	Group 1, —/SSC/—	In San Diego County, this bird is typically found in the coastal lowland where riparian woodlands occur.	N	U	Although there is Coast Live Oak Riparian Forest habitat on-site with a few scattered willows, this property is in Alpine, not along the coastal lowland.
<i>Phalacrocorax auritus</i> Double-crested Cormorant	Group 2, —/WL/—	A non-breeding visitor on both fresh and salt water.	N	U	There are no suitable water sources on-site for this aquatic species.
<i>Poliophtila californica</i> Coastal California Gnatcatcher	Group 1, FT/SSC/—	An obligate inhabitant of Sage Scrub or sometimes Chaparral where the two habitats intermix.	N	U	There is no Sage Scrub habitat on the property.
<i>Setophaga petechia</i> Yellow Warbler (nesting)	Group 2, BCC/SSC/—	Breeding occurs in mature riparian habitats, primarily along the coastal slope.	N	U	There are no mature riparian habitats on this property in Alpine.

Scientific Name Common Name	Sensitivity Code and Status ²	Habitat Preference	Found On-site (Y or N)	Potential On-site ³	Factual Basis for Potential
<i>Sialia mexicana</i> Western Bluebird	Group 2, —/—/—	Found in areas with a combination of trees and open ground.	Y	Observed	This species was observed as an overflight in the central portion of the site during the 2/19/15 survey.
<i>Vireo bellii pusillus</i> Least Bell's Vireo	Group 1, FE/CE/—	An obligate inhabitant of dense, broad, riparian woodlands with adjacent uplands that provide foraging habitat.	N	U	There are no broad riparian habitats dominated by willows on the property.

¹ This sensitive wildlife list is based on a search of the California Natural Diversity Database (CNDDDB), the County of San Diego Sensitive Animal List taken from San Diego, County of. 2010a. County of San Diego Guidelines for Determining Significance and Report Format and Contents for Biological Resources. Fourth Revision. Available from the County's website at http://www.sdcountry.ca.gov/dplu/docs/Biological_Guidelines.pdf, and Fish and Wildlife, California Department of. 2015b. California Natural Diversity Data Base: Special Animals. The Author, Sacramento, California, 65 pp. [available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>], edition of October 2015.

² The status codes are given in the sequence "County Group, federal/state/other." A "—" indicates no status at that level. The codes used are defined as follows:

FE — Federal Endangered
pFE — A petition for Federal Endangerment status has been submitted
FT — Federal Threatened
D — Delisted from the Endangered Species Act
BCC — Birds of Conservation Concern on the BCC 2008 list within BCR 32
CE — State Endangered
CT — State Threatened
SSC — Species of Special Concern
WL — California Department of Fish and Game Watch List
AFS EN — defined as an endangered species by the American Fisheries Society
Fully Protected — A species for which special state legislation exists protecting the species
FS Sensitive — defined as a sensitive species by the USDA Forest Service
BLM Sensitive — defined as a sensitive species by the Bureau of Land Management
WBWG — priority status as defined by the multi-agency Western Bat Working Group
X-CI — defined as critically imperiled by the Xerces Society

³ The "Potential On-site" column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed — Individuals of this species were found within the bounds of the site.

H — The potential for occurrence is “high”. Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.

M — The potential for occurrence is “medium”. Habitats and conditions on-site are considered possible for the species.

L — The potential for occurrence is “low”. The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it’s occurrence can not be precluded.

U — The potential for occurrence is “unlikely”. The habitat and/or food requirements of the species are not present on the subject property.

[:\1722-Sensitive Wildlife List.wpd]

Appendix A

Report of a Federal Protocol Survey for the Quino Checkerspot Butterfly Over the Victoria Estates Property, TM 5431

Prepared by
Cummings and Associates
25 May 2016

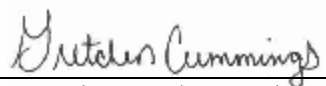
Report of a Federal Protocol Survey for the Quino Checkerspot Butterfly Over the Victoria Estates Property, TM 5431 County of San Diego, California

Prepared for:

Mr. William Goodman
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Prepared By:

Gretchen Cummings


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25 May 2016
Job Number 1722.21D

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2. Figure 2 — Quino Survey Area, Quino Host Plant Locations, and Sensitive Species Locations on the Victoria Estates Project Shown on an Aerial Photo
3. Figure 3 — Quino Host Plant Locations on the Victoria Estates Project Shown on an Enlarged U.S.G.S. 7½-minute Alpine Quad Map
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5. Table 1 — Summary of Weather Conditions
6. Table 2 — Summary of the Butterfly Species Observed on the Victoria Estates Property
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Appendix A — Field Notes

Executive Summary

The Quino Checkerspot Butterfly (*Euphydryas editha quino*) is listed under the Federal Endangered Species Act (ESA) as an endangered subspecies. Prior to development-related activities that might adversely affect habitats potentially occupied by the butterfly, surveys are recommended so as to prevent a “take” of the species under the ESA. A federal protocol survey for the Quino Checkerspot Butterfly was conducted by Cummings and Associates during the 2016 flight season. No adult or larval Quino were found during the 2016 survey effort. One larval Quino host plant species, Dot-seed Plantain (*Plantago erecta*), was noted on-site during the field surveys. This plant species is represented as five, medium density populations and one small density population in the southern part of the property.

I. Introduction

The Quino Checkerspot Butterfly (*Euphydryas editha quino*) is a small, spring flying butterfly listed under the Federal Endangered Species Act (ESA) as an endangered subspecies. Thought to be extinct in 1995, a small population was found in Riverside County in 1996 and the subspecies was listed as endangered in 1997 (USFWS, 1997). Critical habitat for this species was dedicated in 2002 (USFWS, 2002), then revised and finalized in 2009 (USFWS, 2009).

The Quino Checkerspot Butterfly is best thought of in two “phases”. The larvae (or first “phase”) are obligate feeders on a limited variety of food plants: Dot-seed Plantain (*Plantago erecta*), Owl’s Clover (*Castilleja exserta*), Woolly Plantain (*Plantago patagonica*), White Snapdragon (*Antirrhinum coulterianum*), Chinese Houses (*Collinsia concolor*), and Thread-leaved Bird’s Beak (*Cordylanthus rigidus*). The second “phase” is the adult butterfly which is much more mobile. The males of the species exhibit what is referred to as “hilltopping” behavior. They fly to prominent topographical points where they inspect each butterfly that passes-by in the hopes of finding a receptive female Quino.

This federal protocol survey for the Quino was conducted in accordance with the Proposed 2016 Quino Checkerspot Survey Protocol (USFWS, 2016). The survey for the Quino focused on the “open” Chaparral areas, the ridge lines, and on the Dot-seed Plantain populations.

II. Property Location and Description

The Victoria Estates property, also known as, Assessor’s Parcel Number 403-160-07 is located in between Victoria Circle and Victoria Heights Place, just north of Interstate 8 (see Figures 1 and 2). The proposed TM 5431 entails subdivision of the property into twenty-one lots, open space, and a remainder lot that includes the existing residence off of Country Meadows Road. With the exception of the existing residence, the parcel is otherwise undeveloped.

The underlying geology of the property is mapped as Tonalite of Alpine (Todd, 2004). The surficial soils mapped by Bowman (1973) include the following:

- Cieneba rocky coarse sandy loam, 9 - 30% slopes, eroded (CmE2); and
- Cieneba-Fallbrook rocky sandy loams, 30 to 65% slopes, eroded (CnG2).

The vegetative communities found on the property can be classified into five types:

Southern Mixed Chaparral. The majority of the site is occupied by Southern Mixed Chaparral (Holland, 1986; Holland Element Code 37121). The denser Chaparral on the north-facing slopes was excluded from the Quino survey, but the more open Chaparral on the south-facing slopes and on the ridge lines was included. Shrub species indicative of this habitat type that were noted on-site included:

Chamise	<i>Adenostoma fasciculatum</i>
Ramona Lilac	<i>Ceanothus tomentosus</i>
Laurel Sumac	<i>Malosma laurina</i>
Scrub Oak	<i>Quercus berberidifolia</i>
Sugar Bush	<i>Rhus ovata</i>
Mission Manzanita	<i>Xylococcus bicolor</i>

Southern Coast Live Oak Riparian Forest. Southern Coast Live Oak Riparian Forest habitat dominated by Coast Live Oaks (Holland, 1986; Holland Element Code 61310) occurs along the two main drainages that cross the property from east to west.

Oak Woodland. A couple of isolated patches of what is best classified as Oak Woodland (Holland, 1986; Holland Element Code 71100) occur along the more minor drainages on-site that feed into the main central drainage.

Urban/Developed. There is an existing residence on the parcel at the terminus of Country Meadows Road. This residence, along with some fuel modification areas in the northwest and southwest corners and along the western property boundary just south of the residence, are best classified as Urban/Developed land (Holland, 1986; Holland Element Code 12000).

Open Water. There is a small ponded area along the central drainage on the western side of the property. Since there is no canopy cover over this area, it is best mapped as Open Water.

III. Methods

Per the 2016 Quino Checkerspot Butterfly Survey Protocol (USFWS, 2016), a site assessment was conducted on 19 February 2015. Approximately half of the site was able to be excluded due to the occurrence of dense Chaparral and Oak canopies (see Figure 2). The host plant mapping was completed on 25 February 2016 prior to the onset of the six Quino surveys which started on 27 February 2016. During all survey efforts for the Quino Checkerspot, the undersigned was equipped with a collapsible insect net (BioQuip), close focusing photographic gear, and close focusing binoculars (8x42). The photographic gear used this season consisted of a Nikon D300 body and a

70 - 300 mm Quantaray lens with a macro function. This equipment allowed a minimum working distance of approximately fourteen inches. During the field work, wind, and air temperature were taken with a Kestrel. With this instrument, it was possible to record wind speed to the nearest 0.1 mph, and temperature to the nearest 1°. Weather conditions at the beginning and ending of each survey period were recorded and are presented in Table 1.

IV. Results

A total of six Quino surveys were conducted over the Victoria Estates property between 27 February and 5 April. Five medium density populations, and one small density population of Dot-seed Plantain (*Plantago erecta*) were observed on-site (see Figures 2 and 3 for locations). No larvae or adult Quino Checkerspot were observed on the property during any of the six Quino site visits.

The following points highlight the results of the butterfly survey effort on the Victoria Estates property:

- A total of 25 butterfly species were identified during the Quino survey (see Figure 4 for photos of the representative butterfly species observed and Table 2 for a list of the butterfly species).
- Three butterfly species, the Sara Orangetip, the Mormon Metalmark and the Acmon Blue, were observed during all six surveys.
- All four of the *Vanessa* species found in the contiguous United States were noted on-site during the Quino surveys; *Vanessa atalanta*, *Vanessa annabella*, *Vanessa cardui*, and *Vanessa virginiensis*.

A compilation of the butterflies observed during the protocol survey effort is presented as Table 2. The reader's attention is directed to that table, to the attached Figure 4, and to the attached Field Notes for additional information and details on the results of the field effort.


During the course of the survey, a concerted effort was made to identify other plant and wildlife species that would be considered sensitive. While this part of the field effort does not constitute a comprehensive survey, any observations of interest must be reported per the requirements of the federal protocol for the Quino. During the Quino surveys, five sensitive species were observed on the Victoria Estates property; Orange-throated Whiptail (*Aspidoscelis hyperythra*), Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*), San Diego Horned Lizard (*Phrynosoma blainvillii*), Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*), and Cooper's Hawk (*Accipiter cooperi*) - see Figure 2 for locations of observations except for the Cooper's Hawk which was an overflight and is not marked on the map.

V. Recommendation

Although populations of Dot-seed Plantain were identified on-site, no larvae nor adults of the Quino Checkerspot were identified during the 2016 protocol survey. Therefore, the proposed future subdivision of the Victoria Estates property will have no effect on the endangered Quino Checkerspot Butterfly. Absent a demonstrable effect on the species, no mitigation measures are required, and none are recommended.

VI. Surveyor Certification

I certify that the information in this survey report and attached exhibits fully and accurately represents my work. Any errors or omissions are solely my responsibility.

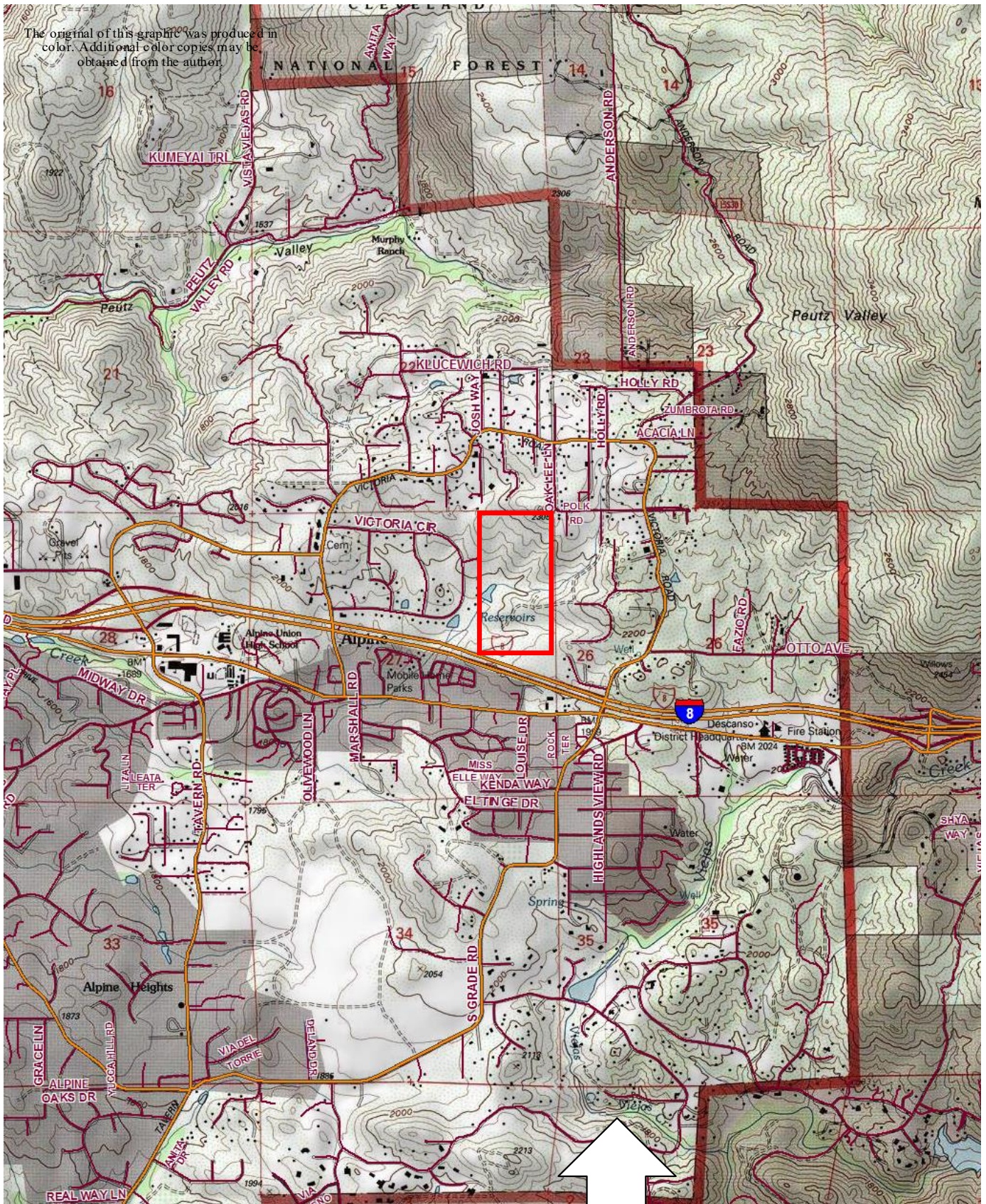


Gretchen Cummings
Principal/Consulting Biologist
[TE-031850-4]

5/25/16

Date

[\\1722Quino-report.wpd]



Cummings and Associates Job Number 1722.21D 23 February 2016

Scale: 1-inch = 2,000-feet

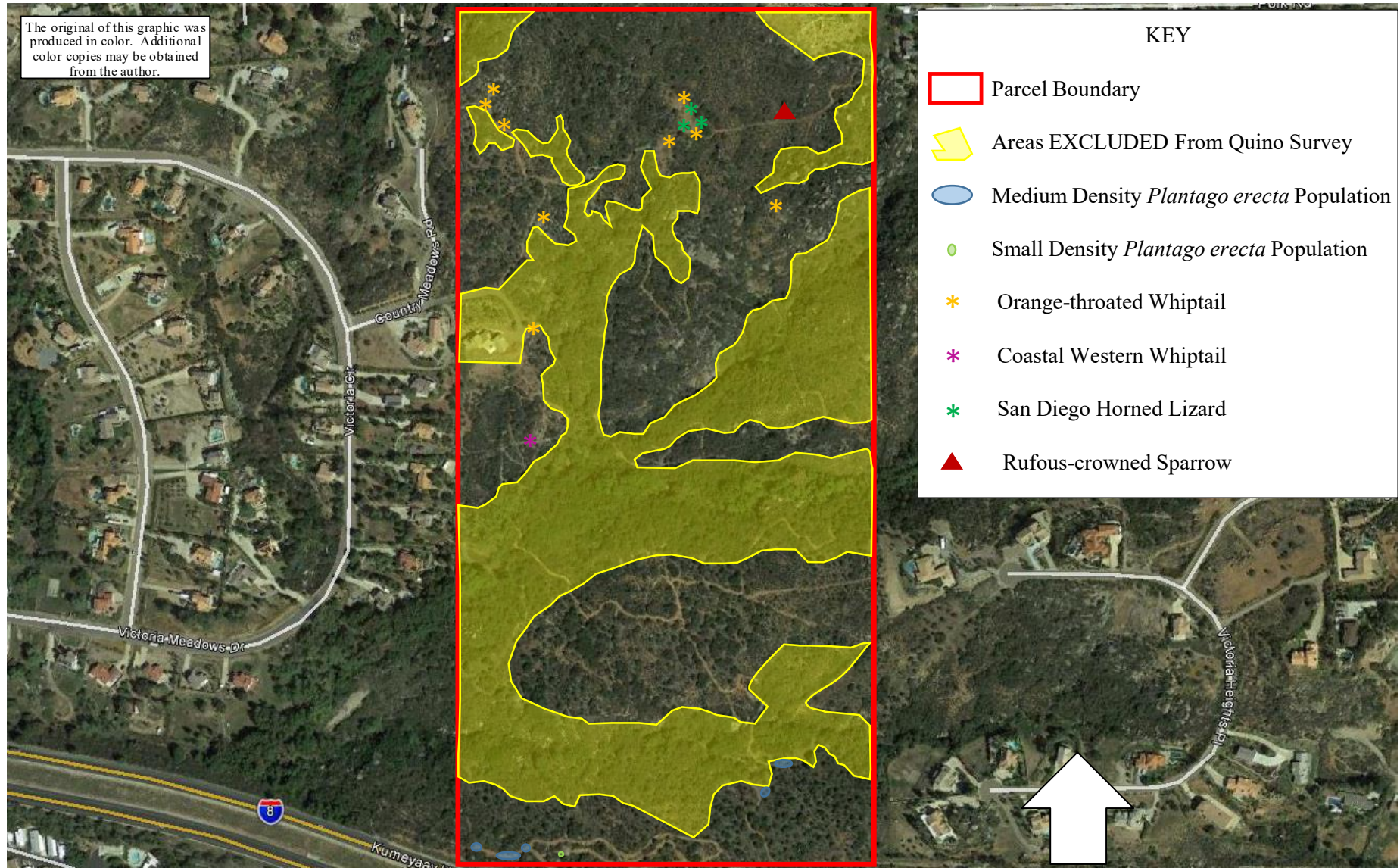
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**Cummings
and
Associates**

**Victoria Estates Project Shown on the
U.S.G.S. 7 1/2-minute Alpine Quad Map**
[Base Map Created with TOPO!® ©2006 National Geographic;
©2005 TeleAtlas]

**Figure
1**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Cummings and Associates Job Number 1722.21D 25 May2016

Scale: 1-inch = 500-feet

[:\1722-Quino-Fig-2.pptx]

**Cummings
and
Associates**

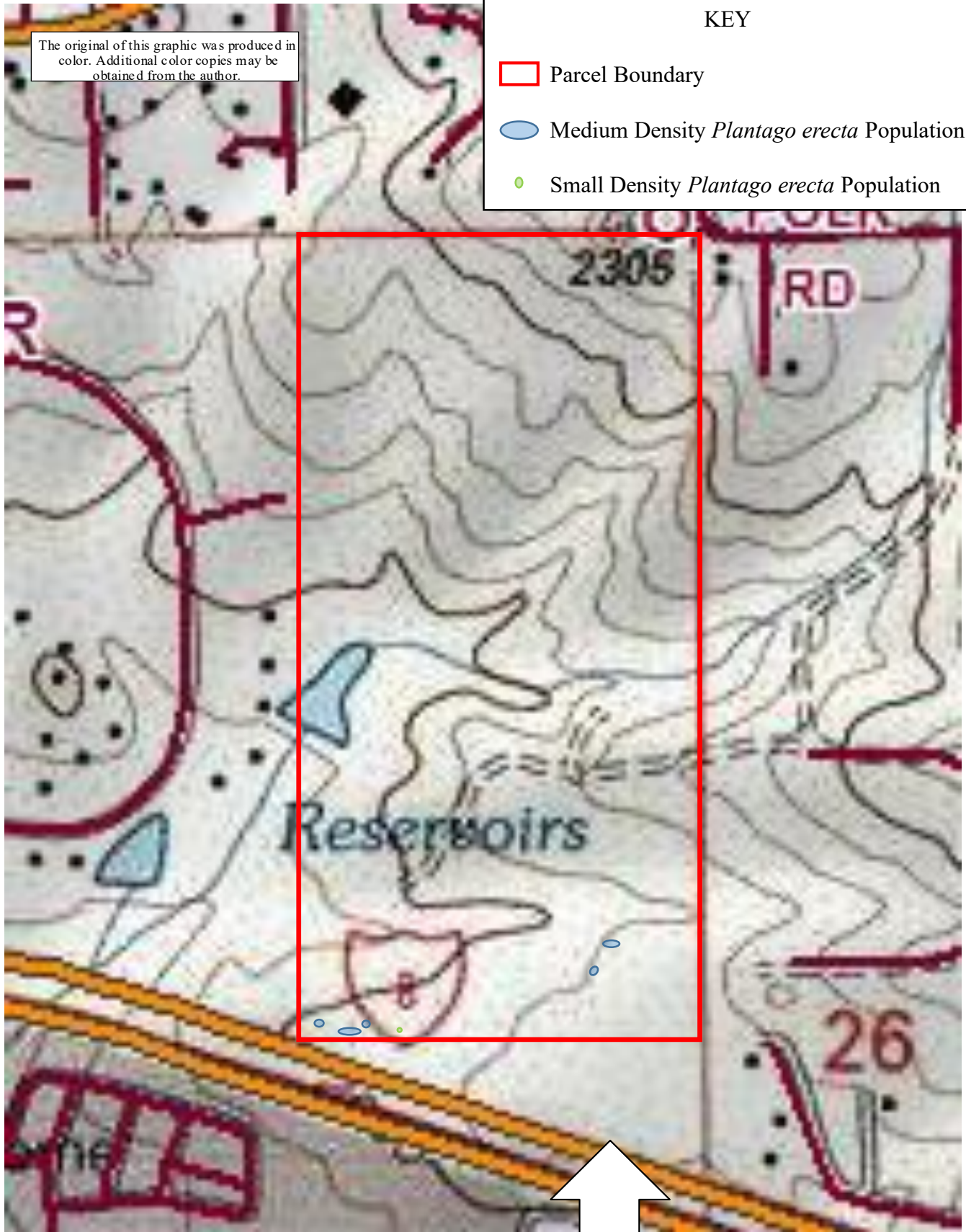
**Quino Survey Area, Quino Host Plant Locations, and Sensitive Species
Locations on the Victoria Estates Project Shown on an Aerial Photo
[Base Photo © 2016 Google; Imagery Date 3/22/2016]**

**Figure
2**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

KEY

- Parcel Boundary
- Medium Density *Plantago erecta* Population
- Small Density *Plantago erecta* Population



Cummings and Associates Job Number 1722.21D 25 May 2016

Scale: 1-inch = 500-feet

[:\1722-Quino-Fig-3.pptx]

**Cummings
and
Associates**

**Quino Host Plant Locations on the Victoria
Estates Project Shown on an Enlarged U.S.G.S.
7 ½-minute Alpine Quad Map** [Base Map Created
with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

**Figure
3**



Figure 4A — Mormon Metalmark
(*Apodemia mormo virgulti*)
This species was seen during all six surveys.
The larvae feed on California Buckwheat.
[Photo taken at a different site.]



Figure 4B — Bramble Hairstreak
(*Callophrys dumetorum*)
This species was observed during
three out of the six surveys.
The larvae feed on Buckwheats and Deerweed.
[Photo taken at a different site.]

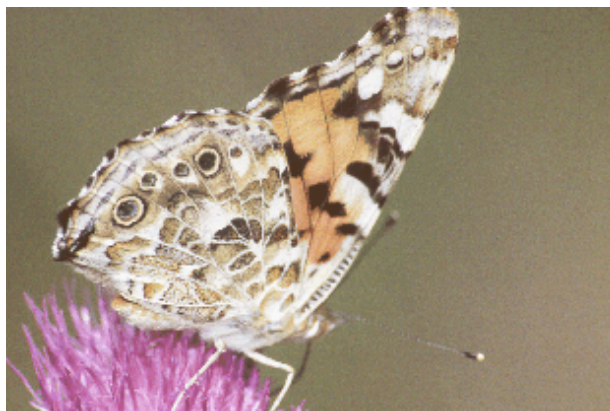


Figure 4C — Painted Lady (*Vanessa cardui*)
This butterfly species was seen during four of the six
Quino site visits. Numbers of this species were
uncharacteristically low this season.
[Photo taken at a different site.]



Figure 4D — Sara Orangetip
(*Anthocharis sara*)
This species was seen during
all six surveys. The larvae of this
species feed on a variety of Crucifers.
[Photo taken on-site during the Quino survey.]

Table 1

**Summary of Weather Conditions at the
Time of the Individual Survey Dates**

Victoria Estates, TM 5431									
Survey	Date	Beginning of Observation Period				End of Observation Period			
		Time	Cloud Cover	Wind	Air Temp	Time	Cloud Cover	Wind	Air Temp
Site Assessment	19 Feb 2015	1100	70%	1.9 - 3.2 mph	76.3°F	1330	70%	1.8 - 4.7 mph	77.2°F
Host Plant Mapping	25 Feb 2016	1000	Clear	1.0 - 4.4 mph	75.3°F	1245	Clear	1.1 - 5.3 mph	84.7°F
Quino Survey #1	27 Feb 2016	0915	Clear	2.5 - 6.2 mph	71.7°F	1345	Clear	2.4 - 5.0 mph	77.6°F
Quino Survey #2	10 Mar 2016	1200	20%	1.0 - 4.4 mph with gusts to 7.0 mph	77.5°F	1600	90%	< 4.2 mph	71.7°F
Quino Survey #3	17 Mar 2016	0930	Clear	< 2.2 mph	73.1°F	1330	Clear	< 2.7 mph	82.0°F

Victoria Estates, TM 5431									
Survey	Date	Beginning of Observation Period				End of Observation Period			
		Time	Cloud Cover	Wind	Air Temp	Time	Cloud Cover	Wind	Air Temp
Quino Survey #4	20 Mar 2016	1015	10%	< 2.1 mph	73.1°F	1415	40%	< 3.0 mph	79.3°F
Quino Survey #5	25 Mar 2016	1315	30%	< 3.0 mph	77.9°F	1715	10%	< 3.3 mph	74.9°F
Quino Survey #6	5 Apr 2016	1045	100% high, thin clouds	< 3.3 mph	77.4°F	1445	95% high, thin clouds	< 5.2 mph	83.3°F

[:\1722weather-tbl.wpd]

Table 2**Summary of the Butterfly Species Observed at the Victoria Estates Property, TM 5431
County of San Diego, California**

Scientific Name ¹ / Common Name	25 Feb 2016 ²	27 Feb 2016	10 Mar 2016	17 Mar 2016	20 Mar 2016	25 Mar 2016	5 Apr 2016
<i>Adelpha bredowii</i> California Sister	—	—	—	—	—	—	1
<i>Anthocharis sara</i> Sara Orangetip	8	10	9	16	22	20	44
<i>Apodemia mormo virgulti</i> Mormon Metalmark	2	11	5	13	17	18	25
<i>Brephidium exile</i> Western Pygmy-Blue	—	—	—	—	—	—	1
<i>Callophrys augustinus</i> Brown Elfin	—	2	—	—	—	—	—
<i>Callophrys dumetorum</i> Bramble Hairstreak	—	—	—	2	1	1	—
<i>Colias eurytheme</i> Orange Sulphur	—	—	3	6	3	—	3
<i>Erynnis funeralis</i> Funereal Duskywing	1	5	1	6	1	4	—
<i>Erynnis pacuvius</i> Pacuvius Duskywing	—	1	4	2	—	—	1

Scientific Name ¹ / Common Name	25 Feb 2016 ²	27 Feb 2016	10 Mar 2016	17 Mar 2016	20 Mar 2016	25 Mar 2016	5 Apr 2016
<i>Glaucopsyche lygdamus</i> Silvery Blue	—	—	—	—	2	—	—
<i>Junonia coenia</i> Common Buckeye	—	—	—	—	—	3	1
<i>Limenitis lorquini</i> Lorquin's Admiral	—	—	—	1	—	—	—
<i>Nymphalis antiopa</i> Mourning Cloak	—	—	—	—	—	—	2
<i>Papilio eurymedon</i> Pale Swallowtail	—	1	—	2	—	1	—
<i>Papilio rutulus</i> Western Tiger Swallowtail	—	—	—	—	—	—	2
<i>Phyciodes mylitta</i> Mylitta Crescent	1	2	3	2	1	1	—
<i>Pieris rapae</i> Cabbage White	—	2	—	—	—	1	—
<i>Plebejus acmon</i> Acmon Blue	—	1	2	2	5	2	2
<i>Pontia protodice</i> Checkered White	—	—	—	3	4	1	4
<i>Pyrgus albescens</i> White Checkered-Skipper	—	—	—	—	1	2	—

Scientific Name ¹ / Common Name	25 Feb 2016 ²	27 Feb 2016	10 Mar 2016	17 Mar 2016	20 Mar 2016	25 Mar 2016	5 Apr 2016
<i>Strymon melinus</i> Gray Hairstreak	—	—	—	—	1	—	—
<i>Vanessa annabella</i> West Coast Lady	—	4	5	2	—	—	—
<i>Vanessa atalanta</i> Red Admiral	—	1	—	1	1	2	—
<i>Vanessa cardui</i> Painted Lady	3	12	1	2	3	—	—
<i>Vanessa virginiensis</i> American Lady	—	—	1	—	1	1	—
Undifferentiated Blue	—	—	—	—	—	—	1
Undifferentiated Sulphur	—	2	—	—	—	3	4
Undifferentiated <i>Vanessa</i> sp.	—	—	—	—	—	5	4
Undifferentiated White	—	1	5	—	—	—	—
Total Individuals/ Total Species Observed	15/ 5	55/ 15	39/ 11	60/ 14	63/ 14	65/ 15	95/ 14

¹For a discussion of the identification and species observed, see text. Nomenclature taken from:

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²This visit entailed the “host plant mapping” according to the Proposed 2016 Quino Checkerspot Survey Protocol. The “habitat assessment” occurred on 19 February 2015.

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[:\1722Quino-ref-cit.wpd]

Appendix A

Field Notes

2016 Field Notes for the Quino Survey over the Victoria Estates Property (TM 5431) in Alpine

19 February 2015

A Quino Checkerspot Butterfly habitat assessment was conducted over the Victoria Estates property today (Cummings and Associates Job #1722.21D). The field survey occurred between 1100 and 1330 hours. The sky was mostly cloudy with 70% cloud cover throughout the site visit. The temperature rose slightly during the survey period from 76.3°F at 1100 hours to 77.2°F at 1330 hours. Wind speeds were measured between 1.9 - 3.2 mph at the beginning of the survey. At the completion of the visit, wind speeds were measured between 1.8 - 4.7 mph. Only one butterfly species was observed during the habitat assessment, the Painted Lady (*Vanessa cardui*). No Quino host plants were identified during this visit.

25 February 2016

Today's visit was dedicated to conducting the Quino host plant mapping over the Victoria Estates property (Cummings and Associates Job #1722.21D). This field work occurred between 1000 and 1245 hours. The sky was sunny and clear throughout the survey. Temperature increased from 75.3°F at 1000 hours to 84.7°F at 1245 hours. Wind speeds were measured between 1.0 - 4.4 mph at the onset of the survey and between 1.1 - 5.3 mph at the end.

Butterflies observed during the host plant mapping were:

Anthocharis sara (8)
Erynnis funeralis (1)
Apodemia mormo virgulti (2)
Vanessa cardui (3)
Phyciodes mylitta (1)

The only Quino host plant noted on-site was the Dot-seed Plantain (*Plantago erecta*). It was noted along the southern property boundary at the edges of the power lines/dirt bike run.

27 February 2016

Today's survey represented the first of the protocol Quino surveys over the Victoria Estates property (Cummings and Associates Job #1722.21D). The protocol survey occurred between 0915 and 1345 hours. The ambient temperature increased from 71.7°F at the onset of the field visit to 77.6°F at the end of the survey. The wind was blowing from the west during the observation period. Wind speeds were measured between 2.5 - 6.2 mph at the beginning of the

visit and between 2.4 - 5.0 mph at the end of the survey. The sky was sunny and clear through the visit. Butterflies observed were:

Vanessa cardui (12)
Anthocharis sara (10)
Vanessa annabella (4)
Callophrys augustinus (1)
Apodemia mormo virgulti (11)
Papilio eurymedon (1)
Erynnis funeralis (5)
Undifferentiated Sulphur (2)
Pieris rapae (2)
Vanessa atalanta (1)
Phyciodes mylitta (2)
Erynnis pacuvius (1)
Plebejus acmon (1)
Undifferentiated White (1)

Nectaring sources included:

Eriogonum fasciculatum
Gutierrezia sarothrae
Acmispon glaber
Marah macrocarpa
Plagiobothrys sp.
Pectocarya linearis ssp. *ferocula*
Dichelostemma capitatum
Hirschfeldia incana
Calystegia macrostegia
Salvia columbariae
Rhus ovata
Plantago erecta
Helianthemum scoparium
Ceanothus tomentosus
Ceanothus cuneatus var. *cuneatus*

The *Plantago erecta* populations were healthy and flowering along the southern property boundary.

Other observations included a Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*), Dusky-footed Woodrat nests (*Neotoma fuscipes*), two Orange-throated Whiptails (*Aspidoscelis hyperythra*), and one Side-blotched Lizard (*Uta stansburiana*).

8 March 2016

The second Quino protocol survey was conducted over the Victoria Estates property today (Cummings and Associates Job #1722.21D). This second survey was conducted between 1200 and 1600 hours. The sky had variable cloud cover throughout the survey with 20% cloud cover at 1200 hours and 90% cloud cover at 1600 hours. The temperature decreased from 77.5°F at the onset of the visit to 71.7°F at the end of the observation period. Winds were blowing from the southwest at speeds between 1.0 - 4.4 mph with gusts up to 7.0 mph at 1200 hours. At the end of the survey, the winds were still blowing from the southwest, but were measured at < 4.2 mph. Butterfly species observed during this second protocol survey were:

Vanessa cardui (1)
Erynnis pacuvius (4)
Anthocharis sara (9)
Apodemia mormo virgulti (5)
Colias eurytheme (3)
Undifferentiated White (5)
Erynnis funeralis (1)
Vanessa annabella (5)
Phyciodes mylitta (3)
Plebejus acmon (2)
Vanessa virginiensis (1)

Nectaring sources included:

Plagiobothrys sp.
Acmispon glaber
Gutierrezia sarothrae
Helianthemum scoparium
Rhus ovata
Eriogonum fasciculatum
Amsinckia menziesii
Hirschfeldia incana
Encelia californica
Eriophyllum confertiflorum
Dichelostemma capitatum
Salvia columbariae
Plantago erecta

The *Plantago erecta* was healthy and flowering. Some were smaller than a penny and others were 1 - 2" tall.

17 March 2016

Today the third of the required Quino protocol surveys was conducted over the Victoria Estates property (Cummings and Associates Job #1722.21D). The field visit occurred between 0930 and 1330 hours. The sky was sunny and clear throughout the survey. Ambient temperatures were measured at 73.1°F at the onset of the visit and at 82.0°F at the end of the observation period. At the beginning of the survey, the wind was blowing from the west at speeds < 2.2 mph. By the end of the visit, the winds were still blowing from the west at speeds < 2.7 mph. Butterfly species observed during this visit were:

Papilio eurymedon (2)
Anthocharis sara (16)
Apodemia mormo virgulti (13)
Vanessa cardui (2)
Callophrys dumetorum (2)
Colias eurytheme (6)
Erynnis funeralis (6)
Vanessa atalanta (1)
Pontia protodice (3)
Plebejus acmon (2)
Phyciodes mylitta (2)
Erynnis pacuvius (2)
Limenitis lorquini (1)
Vanessa annabella (2)

Nectaring sources during this visit included:

Erodium cicutarium
Acmispon glaber
Eriogonum fasciculatum
Encelia californica
Hirschfeldia incana
Rhus ovata
Calystegia macrostegia
Eriophyllum confertiflorum
Gutierrezia sarothrae
Pectocarya linearis ssp. *ferocula*
Plagiobothrys sp.
Dichelostemma capitatum
Helianthemum scoparium
Cryptantha sp.

Cistus incanus
Plantago erecta

The *Plantago erecta* was still green and flowering. Plants varied in height up to 3".

Other observations included three California Ground Squirrels (*Spermophilus beecheyi*), two Audubon's Cottontails (*Sylvilagus audubonii*), three Orange-throated Whiptails (*Aspidoscelis hyperythra*), two Side-blotched Lizards (*Uta stansburiana*), one Cooper's Hawk as an overflight, a pair of Blue-gray Gnatcatchers, a Rufus Hummingbird and a Pacific-slope Flycatcher.

20 March 2016

Today the fourth of the required Quino protocol surveys was conducted over the Victoria Estates property (Cummings and Associates Job #1722.21D). The field visit occurred between 1015 and 1415 hours. The sky was partly cloudy throughout the survey with 10% clouds at the beginning of the visit and 40% clouds at the end of the observation period. Ambient temperatures were measured at 73.1°F at 1015 hours and at 79.3°F at 1415 hours. At the beginning of the survey, the wind was blowing from the west at speeds < 2.1 mph. By the end of the visit, the winds were still blowing from the west at speeds < 3.0 mph. Butterfly species observed during this visit were:

Anthocharis sara (22)
Glaucopsyche lygdamus (2)
Apodemia mormo virgulti (15)
Vanessa cardui (3)
Plebejus acmon (5)
Callophrys dumetorum (1)
Colias eurytheme (3)
Pontia protodice (4)
Vanessa virginiensis (1)
Strymon melinus (1) - nectaring on *Helianthemum scoparium*
Erynnis funeralis (1)
Phyciodes mylitta (1)
Pyrgus albescens (1)
Vanessa atalanta (1)

Nectaring sources during this visit included:

Hirschfeldia incana
Encelia californica
Acmispon glaber
Gutierrezia sarothrae
Helianthemum scoparium

Rhus ovata
Eriogonum fasciculatum
Eriophyllum confertiflorum
Cryptantha sp.
Plagiobothrys sp.
Marah macrocarpa
Amsinckia menziesii
Pectocarya linearis ssp. *ferocula*
Harpagonella palmeri
Dichelostemma capitatum
Plantago erecta

The *Plantago erecta* was still flowering and mostly green, but some were starting to yellow. Plants varied in height up to 3".

Other observations included one Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*), and Coyotes howling in response to an ambulance siren.

25 March 2016

Today the fifth of the required Quino protocol surveys was conducted over the Victoria Estates property between 1315 and 1715 hours (Cummings and Associates Job #1722.21D). The sky was partly cloudy throughout the survey with approximately 30% cloud cover at 1315 hours and 10% cloud cover at 1715 hours. Temperatures ranged from 77.9°F at the onset of the visit to 74.9°F at the end of the observation period. Wind speeds were measured at < 3.0 mph from the west at the beginning of the butterfly survey. At the end of the visit, wind speeds were measured at < 3.3 mph from the west. Butterfly species observed were:

Anthocharis sara (20)
Undifferentiated Sulphur (3)
Undifferentiated *Vanessa* (5)
Pontia protodice (1)
Apodemia mormo virgulti (18)
Pieris rapae (1)
Plebejus acmon (2)
Junonia coenia (3)
Phyciodes mylitta (1)
Erynnis funeralis (4)
Vanessa atalanta (2) - nectaring on *Rhus ovata*
Vanessa virginiensis (1) - nectaring on *Rhus ovata*
Callophrys dumetorum (1)
Papilio eurymedon (1)
Pyrgus albescens (2)

Nectaring sources during this visit included:

Hirschfeldia incana
Encelia californica
Eriogonum fasciculatum
Eriophyllum confertiflorum
Acmispon glaber
Plagiobothrys sp.
Helianthemum scoparium
Cryptantha sp.
Gutierrezia sarothrae
Anagallis arvensis
Trichostema parishii
Rhus ovata
Hesperoyucca whipplei
Dichelostemma capitatum
Erodium cicutarium
Plantago erecta

The *Plantago erecta* was still flowering and mostly green, but some were drying out.

5 April 2016

Today the sixth and final Quino protocol survey was conducted over the Victoria Estates property between 1045 and 1445 hours (Cummings and Associates Job #1722.21D). The sky was mostly cloudy throughout the survey with 100% cloud cover of high, thin clouds at 1045 hours and 95% cloud cover of high, thin clouds at 1445 hours. Temperatures ranged from 77.4°F at the onset of the visit to 83.3°F at the end of the observation period. Wind speeds were measured at < 3.3 mph from the southwest at the beginning of the butterfly survey. At the end of the visit, wind speeds were measured at < 5.2 mph from the southwest. Butterfly species observed were:

Plebejus acmon (2)
Undifferentiated Sulphur (4)
Apodemia mormo virgulti (25)
Anthocharis sara (44)
Brephidium exile (1)
Pontia protodice (4)
Adelpha bredowii (1)
Undifferentiated *Vanessa* (4)
Colias eurytheme (3)
Erynnis pacuvius (1)
Undifferentiated Blue (1)
Nymphalis antiopa (2)

Junonia coenia (1)

Papilio rutulus (2)

Nectaring sources during this visit included:

Hirschfeldia incana

Encelia californica

Eriogonum fasciculatum

Acmispon glaber

Eriophyllum confertiflorum

Helianthemum scoparium

Dichelostemma capitatum

Trichostema parishii

Adenostoma fasciculatum

Rhus ovata

Plagiobothrys sp.

Pseudognaphalium californicum

Phacelia parryi

Anagallis arvensis

Lonicera subspicata

Cercocarpus betuloides var. *betuloides*

Hazardia squarrosa

Crassula connata

Rhamnus ilicifolia

Lupinus bicolor

Cryptantha sp.

Erodium cicutarium

Hesperoyucca whipplei

Mimulus aurantiacus

Gutierrezia sarothrae

Plantago erecta

Some of the *Plantago erecta* was still green, some was withering, and other were completely dried out.

Other observations included one California Ground Squirrel (*Spermophilus beecheyi*), three Audubon's Cottontails (*Sylvilagus audubonii*), four Orange-throated Whiptails (*Aspidoscelis hyperythra*), one Side-blotched Lizard (*Uta stansburiana*), two San Diego Horned Lizards (*Phrynosoma blainvillii*), and one Western Fence Lizard (*Sceloporus occidentalis*).

[:\1722Field Notes.wpd]

Appendix B

Wetland Delineation Over Portions of the Alpine 21 Property [TM 5431]

Prepared by
Cummings and Associates
22 February 2017
Updated 15 May 2020

Cummings and Associates

Wetland Delineation Over Portions of the Alpine 21 Property County of San Diego, California

Introduction. The Alpine 21 property is located north of Interstate 8 in the Alpine community in unincorporated San Diego County. The 80.7-acre parcel is specifically found between East and West Victoria Drives (see Figure 1). Currently, the property is undeveloped and contains native habitats. The development plans for the property include a subdivision that would create twenty single-family residential lots and an open space easement. In order to determine potential wetland impacts resulting from subdivision of the property and the subsequent grading and construction, a wetland delineation was conducted over portions of the property that are proposed to be disturbed and are known to contain wetlands or “waters of the U.S.” (see Figure 1).

Summary of Wetland Regulations. Wetlands may be regulated by several different agencies or jurisdictions with several different definitions of wetlands. As a result, a particular wetland may have more than one jurisdictional boundary. Federally defined wetlands fall under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), and the Regional Water Quality Control Board (RWQCB) pursuant to Sections 404 and 401 of the Clean Water Act (CWA), respectively. State-defined wetlands fall under the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Fish and Game Code. Within the County of San Diego, wetlands are defined in the Resource Protection Ordinance (RPO). Any impacts proposed to these wetlands need to be quantified, permits obtained and mitigation carried out.

For the purposes of federal regulatory programs, federal wetlands are defined as areas meeting *all three* of the following criteria:

1. A predominance of hydrophytic vegetation; and
2. Sufficient hydrology (or water flow) such that there is an anaerobic growing condition in the soil for at least one week during the growing season; and
3. A predominance of hydric soils.

In addition to federal wetlands, “waters of the United States” are also regulated by the ACOE under Section 404 of the Clean Water Act. In non-tidal situations, “waters of the U.S.” are delineated by the Ordinary High Water Mark (OHWM) which is defined as, “. . .the line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation or presence of litter and debris. .”

The CDFW and the County of San Diego RPO also use the same three criteria to define wetlands: hydrophytic vegetation, hydrology, and hydric soils. However, for CDFW and the County, the presence of *one or more* of the indicators is sufficient to define an area as a state “wetland” or a County “RPO wetland”.

Methodology. Based upon the Preliminary Grading Plan provided to Cummings and Associates by Jones Engineers, Inc., and based upon previous conversations with the County of San Diego, there are two drainage areas (A and B) on-site considered RPO wetlands. Small portions of these drainages are proposed to be filled or disturbed during construction. Drainage Area A is located in the central portion of the parcel. It enters the site from the eastern edge and leaves the property along the western edge. Drainage area B is also oriented east to west, just further to the south of the central drainage. Each of the points of impact along the two drainage areas were visited in 2017 to quantify the impacts to the ACOE, RWQCB, CDFW and RPO wetlands.

Results. The central drainage contains jurisdictional wetlands and the southern drainage contains waters of the U.S., both of which are considered RPO wetlands.

Drainage Area A - Sampling Point A-1. The internal private street, Chelsea Leigh Way is proposed to cross Drainage Area A in order to provide access to the southern nine lots. Drainage Area A currently contains an existing culvert under the dirt road which will need to be replaced as part of the project. At Sampling Point A-1 (see Figure 1 for location and Figure 2 for site photo), the OHWM was measured at 12'1". This drainage contains hydrophytic vegetation, hydrology and hydric soils. As such, this area classifies as federal wetlands, RWQCB wetlands, CDFW wetlands, and County RPO wetlands.

Drainage Area B - Sampling Point B-1. A water line to serve the southern nine lots is proposed to be installed in the southeast portion of the site. The line would be trenched, the pipe dropped in, and then the area would be covered back up. At Sampling Point B-1 (see Figure 1 for location and Figure 2 for site photo), the OHWM was measured at 5'10". This southerly drainage is lacking hydrophytic vegetation but had an OHWM. As such, this area classifies as waters of the U.S., RWQCB wetlands, CDFW wetlands, and County RPO wetlands.

Conclusion. The subdivision of the property and subsequent construction associated with TM 5431 will result in temporary impacts to approximately 150-square feet (25-lineal feet) of waters of the U.S., permanent impacts to approximately 1,800-square feet (150-lineal feet) of federal wetlands and permanent impacts to 0.3-acre of CDFW and RPO wetlands classified as Southern Coast Live Oak Riparian Forest. An ACOE 404-Permit, a RWQCB 401 Certification and a CDFW Streambed Alteration Agreement will therefore be required.



Gretchen Cummings
Principal/Biological Consultant

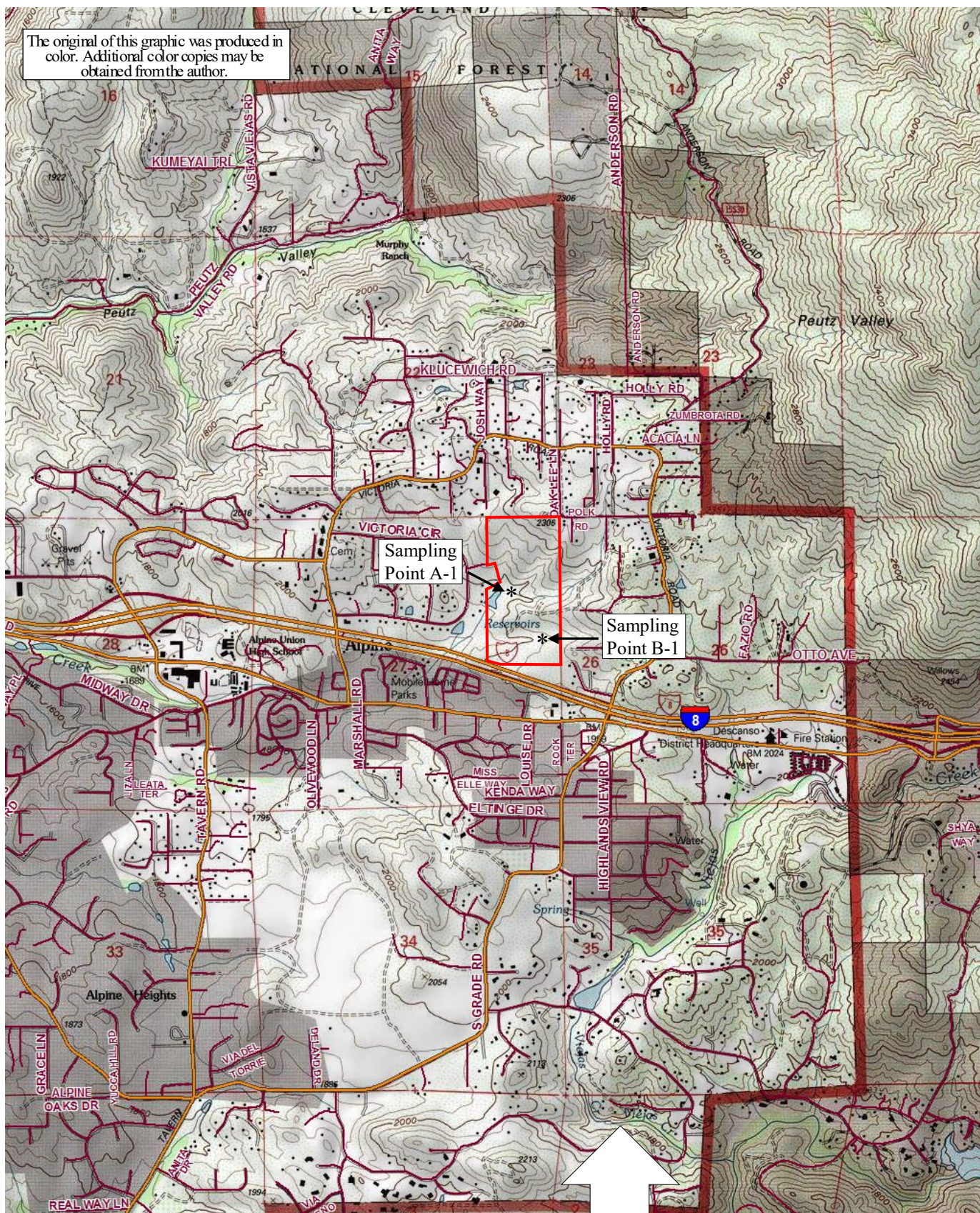
Job Number 1722.21D
22 February 2017
Revised 15 May 2020

Attachments:

1. Figure 1 — Wetland Delineation Sampling Points for Alpine 21 Shown on the 7½-min U.S.G.S. Alpine Quad Map
2. Figure 2 — Site Photos
3. Bibliography and References Cited

[\\1722 Wetland Text-rev.wpd]

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Cummings and Associates Job Number 1722.21D 15 May 2020

Scale: 1-inch = 2,000-feet

[1722-Wet-Fig-1-rev.pptx]

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Associates**

**Wetland Delineation Sampling Points for
Alpine 21 Shown on the U.S.G.S. 7½-min Alpine
Quad Map** [Base Map Created with TOPO!® ©2006 National
Geographic; ©2005 TeleAtlas]

**Figure
1**



Cummings and Associates Job Number 1722.21D 22 February 2017

[:\1722-Wet-Fig-2.pptx]

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Associates**

Site Photos: Top Photo of Jurisdictional Wetlands Along
the Central Drainage; Bottom Photo of Waters of the
U.S. Along the Southern Drainage

**Figure
2**

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Appendix C

**Conceptual Hydromodification, Restoration, Creation, and Monitoring
Plan for the Unnamed Tributary to Alpine Creek Within the
Alpine 21 Project in the County of San Diego, CA
[PDS2005-3100-5431]**

Prepared by
Cummings Environmental, Inc.
23 October 2019
Revised 26 February 2020

**Conceptual Hydromodification, Restoration,
Creation, and Monitoring Plan for the Unnamed
Tributary to Alpine Creek Within the Alpine 21
Project
County of San Diego, CA
[PDS2005-3100-5431]**

Prepared For:

The County of San Diego
Department of Planning and Development Services
5510 Overland Avenue
San Diego, CA 92123

Project Proponent:

Mr. William Goodman and Mr. Dennis Carson
Alpine 21, LLC
5295 Beachcomber Court
San Diego, CA 92130

Prepared By:

Cummings Environmental, Inc.
1721 Main Street, Suite 104
Ramona, CA 92065
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Revised 26 February 2020
23 October 2019
Job Number 1722.21D

I. Purpose and Goals of the Hydromodification, Restoration, Creation, and Monitoring Plan

The purpose of this Hydromodification, Restoration, Creation, and Monitoring Plan is to mitigate for the impacts to the Southern Coast Live Oak Riparian Forest, federal and state wetlands, waters of the U.S., and waters of the state resulting from construction of the Chelsea Leigh Way access road and dedication of a water easement at the Alpine 21 project in Alpine. There are no mitigation banks with appropriate available credits within the watershed. As such, opportunities within the project were researched as potential mitigation solutions. Removal of the historic earthen dam on-site, along with associated restoration of the natural flows and creation of riparian habitat has been identified as a mitigation solution. The earthen dam will be removed and the ponded area recontoured to recreate the natural flows that existed prior to the dam. The recontouring of the ponded area will create an approximate 0.32-acre area that will be planted with native trees and shrubs found in the adjacent Southern Coast Live Oak Riparian Forest habitat. An additional 0.28-acre adjacent to the recontoured ponded area and the existing Southern Coast Live Oak Riparian Forest will be planted with similar native trees and shrubs. In order to accomplish the removal of the earthen dam, recontouring of the ponded area, and creation/restoration of 0.6-acre of Southern Coast Live Oak Riparian Forest, 0.15-acre of permanent impacts and 0.02-acre of temporary impacts will occur to existing Granitic Southern Mixed Chaparral. The 0.15-acre of permanent impacts have been added to the overall project impacts and will be mitigated by purchasing Tier III credits at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP. The 0.02-acre of temporary impacts to the Southern Mixed Chaparral will be revegetated once the 0.6-acre mitigation area has been planted. The goals of this plan are to achieve 65% coverage of native plants in the 0.6-acre restoration area within a 5-year monitoring period with a maximum allowable weed cover of 5% by the end of year five. Survivorship of container plants should be no less than 80% by the end of year five. For the temporary impacts to the Granitic Southern Mixed Chaparral, the goals are to achieve 85% cover of native plants with a maximum of 10% allowable weed cover by the end of year five. It is anticipated that both the 0.6-acre mitigation area and the 0.02-acre temporarily impacted area, totaling 0.62-acre will be maintained and monitored during the same 5-year period.

II. Project Summary

A. Site Location

The existing earthen dam, ponded area, riparian habitat creation area, and temporarily impacted upland area totaling 0.62-acre is situated along the western edge of APN 403-160-15 which is located just north of Interstate 8 and east of Victoria Circle in the Alpine community (see Figures 1 and 2).

B. Existing Site Conditions

The 80.7-acre Alpine 21 property is bounded by Interstate 8 along the southwestern edge, and by residential development to the north, west, and east (see Figure 2). Land ownership adjacent to the parcel is private except for Interstate 8. The subject property contains a main, central drainage, and a smaller, southern drainage. Both the main drainage and the southern drainages flow from the eastern property boundary to the western property boundary. To the north of the main drainage are rocky slopes. In between the main and southern drainages is a ridgeline with scattered boulder outcrops. Currently, the 80.7-acre property is undeveloped and contains three native habitat types: Southern Mixed Chaparral, Coast Live Oak Woodland and Southern Coast Live Oak Riparian Forest. There is also a habitat type, Open Water, that has been created by an historic earthen dam along the western parcel boundary. It is in and around this earthen dam and ponded area that the proposed on-site mitigation for project impacts will occur (see Figures 1, 2, 3 and 4).

C. Project Impacts

The Alpine 21 project is a proposed 20-lot subdivision on APN 403-160-15 with dedicated open space. As currently designed there will be permanent impacts to 0.22-acre of Urban/Developed Land, 0.30-acre of Coast Live Oak Woodland, 0.30-acre of Southern Coast Live Oak Riparian Forest, 38.17-acre of Southern Mixed Chaparral, 0.20-acre of Open Water, and 150-square feet of waters of the state/waters of the U.S. Temporary impacts will occur to 1,800-square feet of federal wetlands/waters of the state, and 0.15-acre of Southern Mixed Chaparral. No mitigation is required for impacts categorized as Urban/Developed Land. Off-site mitigation for permanent impacts to the Coast Live Oak Woodland and Southern Mixed Chaparral will be achieved by purchasing 0.30-acre of Tier I credits and 19.1-acres of Tier III credits at the Crestridge Conservation Bank or other suitable mitigation site within the MSCP, respectively. The remainder of the impacts will be mitigated on-site. Specifically, the earthen dam that has created the ponded area will be removed and recontoured to recreate the natural drainage flows in this area. Once the area has been recontoured, 0.60-acre of Southern Coast Live Oak Woodland will be created/restored (see Figures 2 and 3). The 0.02-acre of temporary impacts to Southern Mixed Chaparral will be restored on-site once the mitigation area has been planted (see Figures 2 and 4).

III. Agency Concerns and Requirements

This plan has been prepared to mitigate the impacts to the Southern Coast Live Oak Riparian Forest, federal and state wetlands, waters of the U.S. and waters of the state resulting from the Alpine 21 subdivision. This concept of on-site mitigation was presented to the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife on 12 December 2017 at an interagency pre-application meeting. The concept was generally approved, and informal

comments were provided by these agencies. This plan is based upon that meeting and the informal comments received.

IV. Hydromodification, Restoration and Creation Design Concept

This plan proposes to mitigate for impacts to the Southern Coast Live Oak Riparian Forest, federal and state wetlands, waters of the U.S. and waters of the state by removing an existing earthen dam, recontouring the ponded area, removing structures at the edge of the pond, and creating/restoring riparian habitat. By removing the earthen dam and recontouring the ponded area, the upstream and downstream drainages can be reconnected via natural channels to improve the function of these drainages. Currently, the earthen dam prevents water from flowing downstream and has created a ponded area that fills during the rainy season (see top photo in Figure 5). Apparently, overflowing of the pond has been an issue in the past and a concrete canal was built off-site to the east (see bottom photo in Figure 5). This concrete canal simply bypasses the earthen dam on-site, and dumps water back into the same drainage downstream of the earthen dam. The proposed hydromodification of the area would make the need for the cement canal obsolete as it would simply restore the natural flows of the drainages as they were prior to the construction of the earthen dam. Once the earthen dam and structures around the ponded area have been removed, and the natural channels have been reestablished, the recontoured banks will be planted with Southern Coast Live Oak Riparian Forest habitat.

Given the location of the mitigation area, temporary impacts to Granitic Southern Mixed Chaparral will occur due to access issues. Machinery necessary to remove the earthen dam and recontour the ponded area will need to access the area along the north side of the existing drainage from the proposed Chelsea Leigh Way (see Figures 2 and 4). Once the mitigation area has been recontoured and planted, the temporary impacts along the machinery access path will then be restored to Southern Mixed Chaparral habitat.

V. Project Responsibility

The **Property Owner**, Alpine 21, LLC, will be responsible for the financing of the plan and the implementation of the plan. The **Project Biologist** will oversee the implementation of the plan, monitor the success of the plan, and coordinate the final sign-off of the creation/restoration efforts with the agencies. The **Grading Contractor** will be responsible for knowing the limits of the allowable impact area and will not cause additional impacts to the surrounding sensitive habitats while accessing the mitigation area, or during the removal of the earthen dam and recontouring of the ponded area. The **Installation Contractor(s)** will be responsible for the installation of the container plants, and the broadcasting of the seed mixes. Lastly, the **Maintenance Contractor** will be responsible for the removal of non-native, invasive plants within the mitigation area and the restoration area. Replacement of dead container plants within the 0.6-acre mitigation area to achieve an overall 80% survivorship will also be the responsibility of the Maintenance Contractor with guidance from the Project Biologist.

VI. Establishment of a Reference Site

The undisturbed Southern Coast Live Oak Riparian Forest habitats that occur on-site and off-site within the same central drainage adjacent to the mitigation area are being used as the reference sites for this creation/restoration project.

VII. Hydromodification, Restoration, and Creation Site Suitability Analysis

The earthen dam was built along the existing central drainage on the Alpine 21 property. This action was the original hydromodification to this drainage system. The dam was used to pond the water flows on-site. This proposed removal of the earthen dam and recontouring of the ponded area adjacent to the dam will effectively “undo” the original hydromodification of the drainage by reconnecting the existing upstream and downstream drainage and riparian habitats. As such, the site is suitable for the 0.6-acre creation and restoration of Southern Coast Live Oak Riparian Forest habitat.

VIII. Project Implementation

A. Phase I – Site Preparation

Due to the location of the earthen dam up against the western property boundary, surrounded by native habitats, access to the mitigation area will cause 0.15-acre of permanent and 0.02-acre of temporary impacts to Granitic Southern Mixed Chaparral (see Figures 2 and 4). As part of Phase I, the limits of the 30-foot wide access route will be clearly marked as it will thread through sensitive resources to the north and south. To the south is the edge of the 50-foot RPO wetland buffer, and to the north is a population of Palmer’s Grappling Hook (*Harpagonella palmeri*), a sensitive species that needs to be avoided. The limits of the 0.6-acre mitigation area will also be clearly marked to ensure that no additional impacts occur to the adjacent sensitive habitats during removal of the dam and recontouring the area.

B. Phase II – Removal of Earthen Dam and Recontouring of Ponded Area

Once the access path and the 0.6-acre mitigation area have been delineated and clearly marked, Phase II will involve the removal of the earthen dam and recontouring of the ponded area. After decades of ponding, soil particles flowing into the area from the main drainage and a smaller side drainage to the west, have hit the dam and settled to the floor of the pond changing the historic topography of this area. The goals of this plan are to remove the earthen dam and recontour

the area to match the existing topography of the unaltered upstream and downstream contours.

C. Phase III - Planting Specifications

Phase III will involve the planting/seeding of the newly recontoured 0.6-acre mitigation area with Southern Coast Live Oak Riparian Forest species and the planting/seeding of the 0.02-acre access path with Southern Mixed Chaparral species. Since no temporary irrigation is recommended for this area, the planting and seeding will begin prior to the rainy season after the dam removal and recontouring of the area has been completed.

0.6-Acre Mitigation Area. The 0.6-acre mitigation area will be planted with the following container species. Please note that these species are ones that have been identified in the adjacent Southern Coast Live Oak Riparian Forest and should be used in densities representative of the adjacent habitats.

Species	Container Size
Coast Live Oak (<i>Quercus agrifolia</i>)	5 and 15 gallons
Engelmann Oak (<i>Quercus engelmannii</i>)	5 gallons
Western Sycamore (<i>Platanus racemosa</i>)	5 and 15 gallons
Fremont's Cottonwood (<i>Populus fremontii</i>)	5 gallons
*Goodding's Black Willow (<i>Salix gooddingii</i>)	1 and 5 gallons
*Arroyo Willow (<i>Salix lasiolepis</i>)	1 and 5 gallons
Blue Elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>)	1 and 5 gallons

* If Willow cuttings can be made from adjacent habitats, these could be used in place of, or in addition to the container plants.

Coast Live Oak and Engelmann Oak trees will generally be planted throughout the 0.6-acre area but will be concentrated on the outer edges of the mitigation area. The other five species will be concentrated closer to the two recontoured drainage channels.

The interstices between the container plants will be hand seeded with the following. Please note that this mix can be augmented and/or modified by the Project Biologist based upon availability of local seed or other factors.

Species	Lbs/Acre
California Mugwort (<i>Artemisia douglasiana</i>)	2.0
Skunk Bush (<i>Rhus aromatica</i>)	1.0
California Rose (<i>Rosa californica</i>)	2.0
Western Poison Oak (<i>Toxicodendron diversilobum</i>)	3.0
California Blackberry (<i>Rubus ursinus</i>)	2.0
Western Ragweed (<i>Ambrosia psilostachya</i>)	2.0
TOTAL	12.0

The seed mix will be broadcasted evenly by hand between the container plants. The seeded areas will then be raked to ensure that there is the required seed to soil contact to maximize growth.

0.02-acre Access Path. After the 0.6-acre mitigation area has been planted and seeded, the 0.02-acre temporarily impacted Southern Mixed Chaparral habitat used for machinery access to the mitigation area will be restored using the following container plants.

Species	Container Size
Chamise (<i>Adenostoma fasciculatum</i>)	1 gallon
Sugar Bush (<i>Rhus ovata</i>)	1 gallon
Laurel Sumac (<i>Malosma laurina</i>)	1 gallon
Mission Manzanita (<i>Xylococcus bicolor</i>)	1 gallon
Ramona Lilac (<i>Ceanothus tomentosus</i>)	1 gallon
Toyon (<i>Heteromeles arbutifolia</i>)	1 gallon

The container plants will be laid out under the guidance of the Project Biologist in a random mosaic representative of the surrounding existing Southern Mixed Chaparral habitat.

The interstices between the container plants will be hand seeded with the following. Please note that this mix can be augmented and/or modified by the Project Biologist based upon availability of local seed or other factors.

Species	Lbs/Acre
Honeysuckle (<i>Lonicera subspicata</i> var. <i>denudata</i>)	2.0
Chamise (<i>Adenostoma fasciculatum</i>)	8.5
Mission Manzanita (<i>Xylococcus bicolor</i>)	4.0
Chaparral Yucca (<i>Hesperoyucca whipplei</i>)	0.5
Broom Baccharis (<i>Baccharis pilularis</i>)	3.0
Saw-toothed Goldenbush (<i>Hazardia squarrosa</i>)	1.0
Golden Yarrow (<i>Eriophyllum confertiflorum</i>)	1.0
Parry's Phacelia (<i>Phacelia parryi</i>)	1.0
White Pincushion (<i>Chaenactis artemisiifolia</i>)	1.0
TOTAL	22.0

The seed mix will be broadcasted evenly by hand between the container plants. The seeded areas will then be raked to ensure that there is the required seed to soil contact to maximize growth.

IX. Project Maintenance

The success of the restoration efforts in the 0.6-acre mitigation area and the 0.02-acre restoration area can be significantly enhanced with a modicum of maintenance activities, summarized as follows:

Maintenance Tasks. Maintenance of the restoration/creation areas by the Maintenance Contractor shall consist of the following tasks:

- Removal of weed species (such as non-native grasses, mustards, and the like) that volunteer onto the site. In order to achieve the success criteria outlined in this plan, it will be necessary and critical, especially during the first year of the program, to remove non-natives that volunteer into the areas. Depending on the extent of the re-invasion by non-natives, the frequency of this maintenance activity will be specified in the monitoring reports prepared by the Project Biologist.
- Additional planting/seeding of native material may be required depending on a variety of factors. The need for such additional plantings/seedings shall be addressed in the monitoring reports prepared by the Project Biologist and shall be based upon the success criteria of achieving 65% cover of native species in the Southern Coast Live Oak Riparian Forest mitigation area and 85% cover of native species in the Southern Mixed Chaparral restoration area by the end of year five.

X. Project Monitoring

Project monitoring of the 0.6-acre mitigation area and the 0.02-acre restoration area will be required to assure success. It is anticipated that the monitoring of the areas will continue for five years or until such time as the success criteria have been met, and the County of San Diego, U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife have conducted a walk-through of the site and accepted the final monitoring report.

Monitoring Tasks. Monitoring of the revegetation areas by the Project Biologist shall consist of the following tasks:

- During the plant establishment period (first 120 days), monitoring by the Project Biologist shall occur monthly. Any issues that need to be addressed will be conveyed to the Property Owner via memo.
- After the plant establishment period, monitoring by the Project Biologist shall occur two additional times during year 1 (year 1 includes the plant establishment period). Years 2 and 3 will require quarterly monitoring visits, and years 4 and 5 will require visits twice per year. A spring site visit in March and a fall check in September are anticipated for years 4 and 5. The spring ground reconnaissance of the revegetated areas will occur following the rainy season and the fall reconnaissance will occur preceding the initiation of the rainy season.

- During each monitoring visit, assess the success (or lack thereof) of the program. The success of the seeding shall be a qualitative assessment based upon estimated percent cover of native plant species. The success of the plantings shall be a quantitative assessment based upon achieving 80% survivorship by the end of year 5. Make recommendations for additional plantings/seedings as necessary.
- During each monitoring visit, ascertain the invasion of the areas by non-natives. Specific recommendations for the removal of such non-natives shall be made to the Property Owner via memo.

Monitoring Reports. Monitoring reports shall be prepared according to the following schedule:

- Year 1: Three reports (one following the plant establishment period and two following the remaining two monitoring visits);
- Year 2: Quarterly reports; and
- Year 3: Quarterly reports; and
- Year 4: Biannual reports; and
- Year 5: Biannual reports, one of which will be the final report used to schedule the sign-off visit with the agencies.

The monitoring reports shall be submitted to the Property Owner, the County of San Diego, the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, the and the California Department of Fish and Wildlife within thirty days of the reconnaissance dates. During the last monitoring site visit (either at the end of year five or at such time as the success criteria are met), the Project Biologist shall quantitatively determine the success of the enhancement efforts through the use of random, stratified, toe-point transects through the two areas to determine the percent cover of native plants and non-native plants. The Project Biologist will also quantitatively determine the survivorship of the container plants.

For the 0.6-acre mitigation area, success will be based upon 65% cover of native species, a maximum of 5% non-native plants, and 80% survivorship of container plants. For the 0.02-acre Southern Mixed Chaparral restoration area, success will be based upon 85% cover of native species, and a maximum of 10% non-native plants. Once the Project Biologist has determined that the success criteria have been met, a final sign-off visit will be scheduled with the County of San Diego, the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, the and the California Department of Fish and Wildlife.

XI. Certification

I certify that this Conceptual Hydromodification, Restoration, Creation, and Monitoring Plan was prepared by Cummings Environmental, Inc. Any questions or concerns regarding this plan should be directed to the undersigned.

Gretchen Cummings

A handwritten signature in dark ink that reads "Gretchen Cummings". The signature is written in a cursive style with a large initial 'G'.

President/Consulting Biologist

Attachments:

Figure 1 – Location of the Alpine 21 Project Shown on the U.S.G.S. 7½-minute
Alpine Quad Map

Figure 2 – Location of the Alpine 21 Project Shown on an Aerial Photo

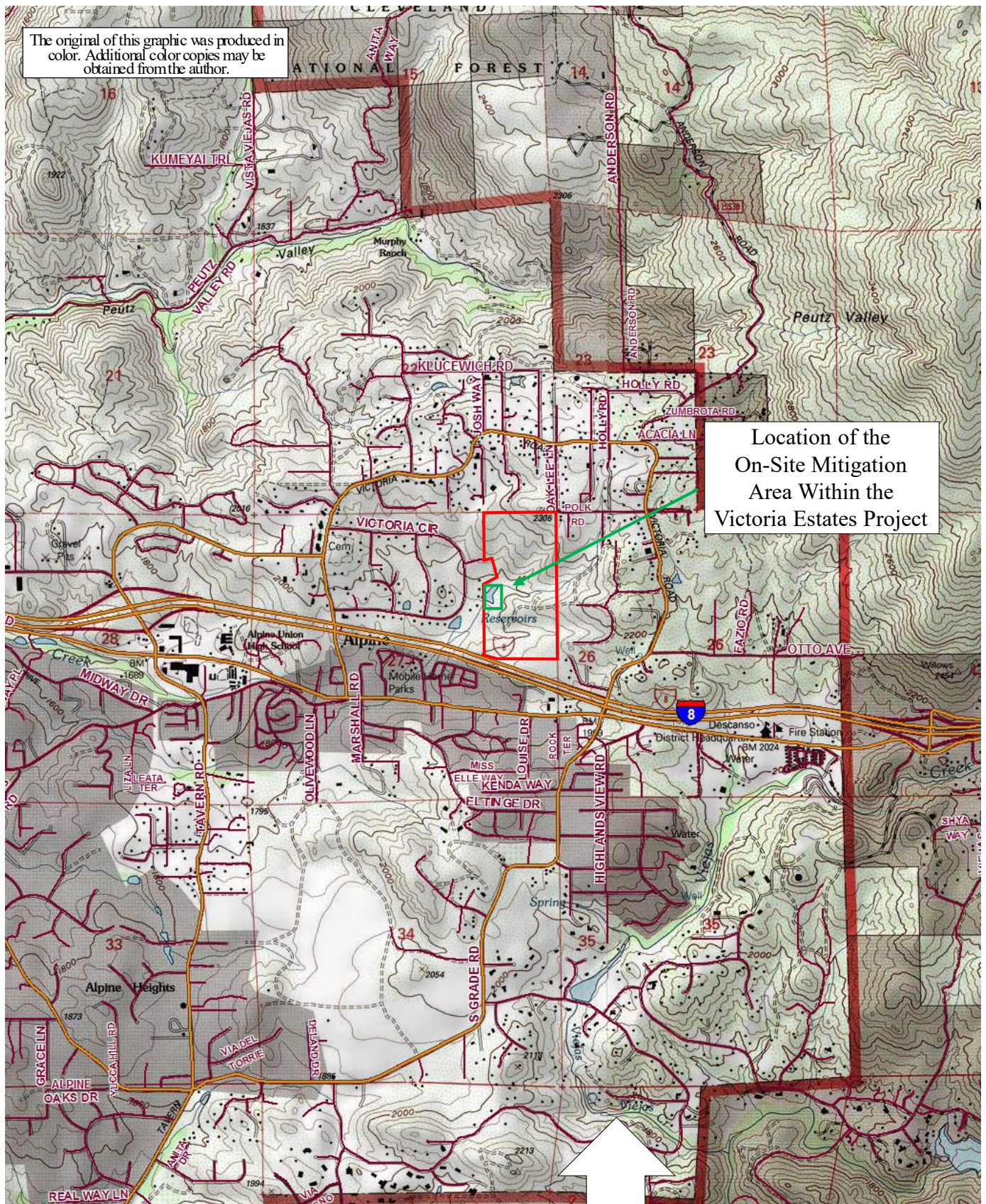
Figure 3 – Conceptual Hydromodification, Restoration, and Creation Plan for the On-site
Mitigation Area

Figure 4 – Location of Temporary Impacts Caused by Accessing the Mitigation Area

Figure 5 – Site Photos

Figure 6 -Site Photos

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Location of the
On-Site Mitigation
Area Within the
Victoria Estates Project

Cummings Environmental Job Number 1722.21D 23 October 2019

Scale: 1-inch = 2,000-feet


[1722-Hydro-Fig-1.pptx]


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**Alpine 21 Project Shown on the U.S.G.S.
7½-minute Alpine Quad Map**
[Base Map Created with TOPO!® ©2006 National Geographic;
©2005 TeleAtlas]


**Figure
1**


[illegible]

 Parcel Boundary

 Hydromodification Area (Removal of Historical Earthen Dam, Recontouring of Poned Area, and Restoration/Creation of Southern Coast Live Oak Riparian Forest)

 Proposed Alignment of Drainages to Recreate Pre-Dam Flows

 Creation of Southern Coast Live Oak Riparian Forest

 Temporarily Impacted Southern Mixed Chaparral Caused by Accessing the On-site Mitigation Area

Cummings Environmental Job Number 1722.21D 26 Februaryr 2020

Cummings Environmental

Location of the Temporary Impacts Caused by Accessing the On-site Mitigation Area [Base Plan Prepared by Jones Engineering, Inc.]

Figure 4

KEY



Parcel Boundary



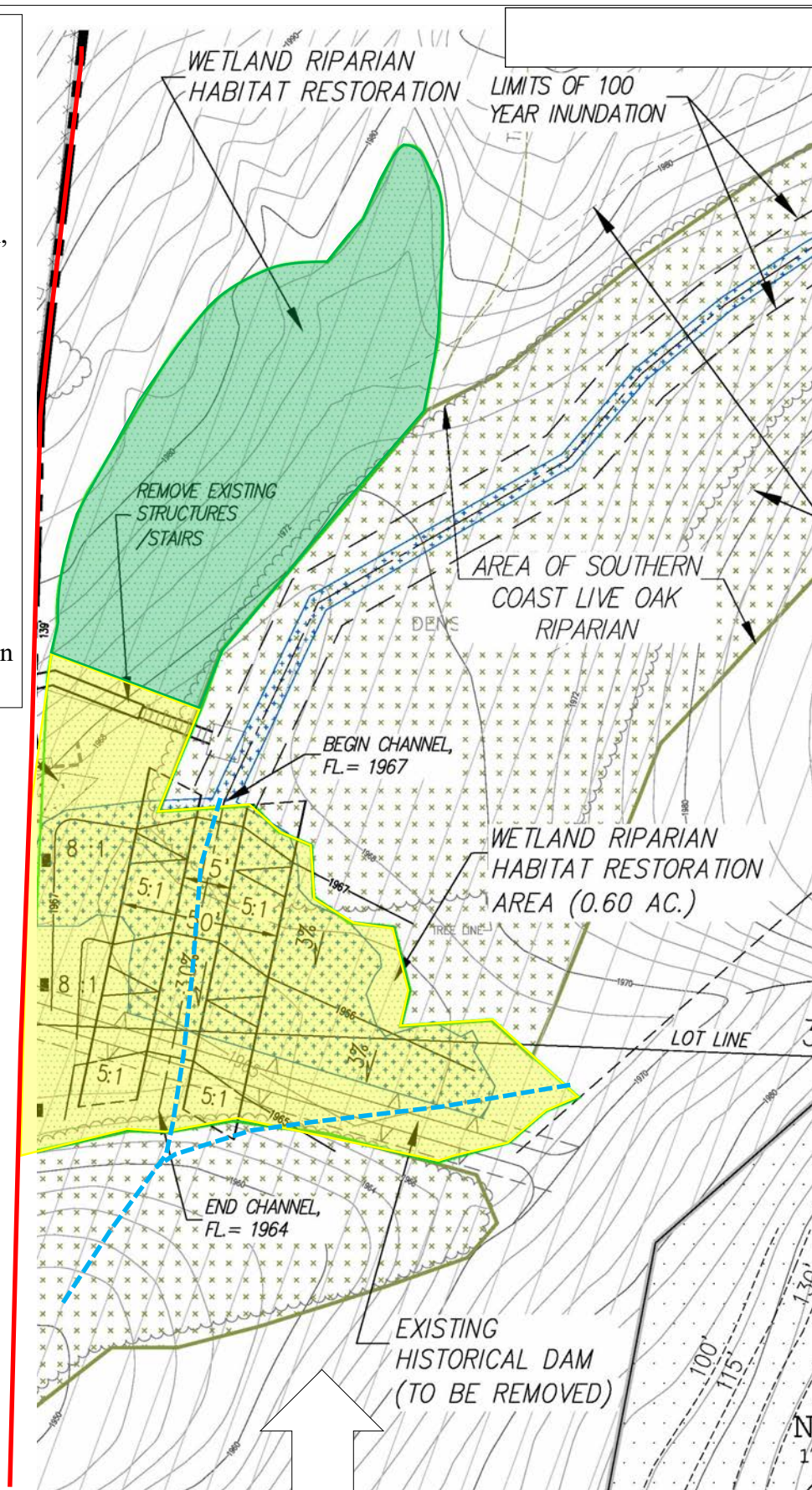
Hydromodification Area (Removal of Historical Earthen Dam, Recontouring of Ponded Area, and 0.32-acre of Restoration/Creation of Southern Coast Live Oak Riparian Forest)



Proposed Alignment of Drainages to Recreate Pre-Dam Flows



Creation of Southern Coast Live Oak Riparian Forest (0.28-acre)



Cummings Environmental Job Number 1722.21D 25 February 2020

Scale: 1-inch = 50-feet

[1722-Hydro-Fig-3-rev.pptx]






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Environmental**

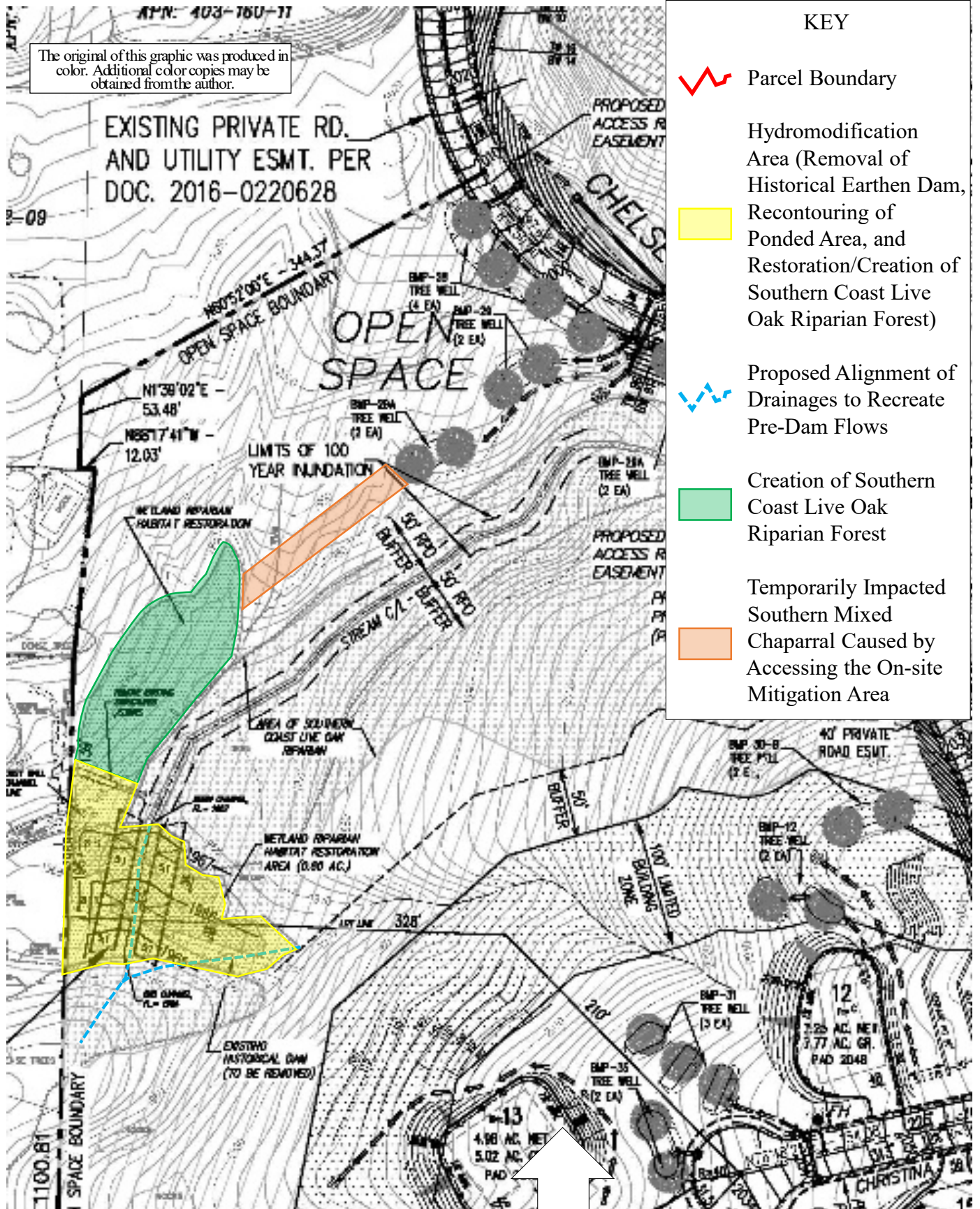
**Conceptual Hydromodification, Restoration
and Creation Plan for the
On-site Mitigation Area
[Base Plan Prepared by Jones Engineering, Inc.]**

**Figure
3**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

KEY

-  Parcel Boundary
-  Hydromodification Area (Removal of Historical Earthen Dam, Recontouring of Pondered Area, and Restoration/Creation of Southern Coast Live Oak Riparian Forest)
-  Proposed Alignment of Drainages to Recreate Pre-Dam Flows
-  Creation of Southern Coast Live Oak Riparian Forest
-  Temporarily Impacted Southern Mixed Chaparral Caused by Accessing the On-site Mitigation Area



Scale: 1-inch = 50-feet

Cummings Environmental Job Number 1722.21D 26 February 2020

[1722-Hydro-Fig-4-rev.pptx]

**Cummings
Environmental**

**Location of the Temporary Impacts Caused
by Accessing the On-site Mitigation Area**
[Base Plan Prepared by Jones Engineering, Inc.]

**Figure
4**

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Cummings Environmental Job Number 1722.21D 23 October 2019

[:\1722-Hydro-Fig-5.pptx]

**Cummings
Environmental**

**Site Photos: Top Photo of Earthen Dam to be
Removed and Ponded Area to be Recontoured;
Bottom Photo of Off-site Overflow Canal**

**Figure
5**

