

Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

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HAN 220003

**WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES
HABITAT CONSERVATION PLAN CONSISTENCY
ANALYSIS**

**HAN 220003
RIVERSIDE COUNTY, CALIFORNIA
ASSESSOR'S PARCEL NUMBER 927-670-009**

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Table of Contents

1.0 EXECUTIVE SUMMARY.....	1
2.0 INTRODUCTION	1
2.1 Project Area	4
2.1.1 Project Area within MSHCP Criteria Area.....	4
2.2 Project Description.....	4
2.3 Covered Roads.....	4
2.4 Covered Public Access Facilities.....	4
2.5 General Setting.....	7
3.0 RESERVE ASSEMBLY ANALYSIS.....	7
3.1 Southwest Area Plan.....	7
3.1.1 Subunit.....	7
3.1.2 Criteria Area – Cell Group C.....	8
3.1.3 Proposed Core 7.....	12
3.1.4 Proposed Constrained Linkage 24.....	12
3.2 Reserve Assembly Analysis Methods.....	12
3.3 Reserve Assembly Analysis Results.....	13
3.4 Reserve Assembly Analysis Discussion.....	16
3.5 Public Quasi-Public Lands.....	16
4.0 VEGETATION MAPPING.....	17
5.0 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (SECTION 6.1.2)	18
5.1 Riparian/Riverine Areas.....	20
5.1.1 Methods.....	20
5.1.2 Existing Conditions and Results.....	21
5.1.3 Impacts.....	33
5.1.4 Mitigation.....	33
5.2 Vernal Pools.....	35
5.2.1 Methods.....	35
5.2.2 Existing Conditions and Results.....	35
5.2.3 Impacts.....	35
5.2.4 Mitigation.....	35
5.3 Fairy Shrimp.....	35
5.3.1 Methods.....	36
5.3.2 Existing Conditions and Results.....	36

5.3.3 Impacts.....	36
5.3.4 Mitigation.....	36
5.4 Riparian Birds	36
5.4.1 Methods.....	36
5.4.2 Existing Conditions and Results	36
5.4.3 Impacts.....	36
5.4.4 Mitigation.....	36
6.0 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3).....	36
6.1 MSHCP Background and Objectives.....	36
6.1.1 NEPS Assessment Area No. 5	37
6.1.2 MSHCP Objectives	38
6.2 Methods.....	40
6.2.1 California Native Plant Society.....	40
6.2.2 Survey Methods and Protocol.....	40
6.2.3 Field Survey Dates and Weather Conditions	41
6.3 Existing Conditions and Results	43
6.3.1 Query Results.....	43
6.3.2 NEPS Assessment Results	43
6.4 Impacts.....	43
6.5 Mitigation.....	43
7.0 ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2).....	43
7.1 Criteria Area Plant Species	43
7.1.1 CAPS Assessment Area No. 5	43
7.1.2 MSHCP Objectives.....	46
7.1.3 CAPS Assessment Methods.....	48
7.1.4 CAPS Query.....	48
7.1.5 Existing Conditions and Results	48
7.1.6 Impacts.....	48
7.1.7 Mitigation.....	48
7.2 Amphibians	48
7.3 Burrowing Owl	48
7.3.1 Background.....	51
7.3.2 Methods.....	54
7.3.3 Existing Conditions and Results	55
7.3.4 Impacts.....	59

7.3.5 Mitigation..... 59

7.4 Mammals..... 59

8.0 INFORMATION ON OTHER SPECIES 59

8.1 Delhi Sands Flower Loving Fly..... 59

8.2 Species Not Adequately Conserved..... 59

8.3 Additional Regulatory-Status Species Requiring Special Consideration 59

8.3.1 Coastal California Gnatcatcher 59

8.4 Nesting Birds 60

9.0 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (SECTION 6.1.4)... 62

10.0 BEST MANAGEMENT PRACTICES (VOLUME I, APPENDIX C)..... 62

11.0 REFERENCES 63

12.0 CERTIFICATION 67

List of Tables

Table 1 – Land Covers (Acres).....	17
Table 2 – MSHCP Section 6.1.2 Assessment Conditions.....	22
Table 3 – NRCS Soils (Acres).....	31
Table 4 – Potential Riverine Areas (Acres).....	31
Table 5 – Potential Riverine Areas (Square Feet).....	31
Table 6 – NEPS Assessment Area No. 5.....	37
Table 7 – CRPR Classifications.....	40
Table 8 – MSHCP Section 6.1.3/6.3.2 Assessment Conditions.....	42
Table 9 – CAPS Assessment Area No. 5.....	46
Table 10 – BUOW Assessment Conditions.....	56

List of Figures

Figure 1 - Regional Map.....	2
Figure 2 - Vicinity Map.....	3
Figure 3 - USGS Topographic Map.....	5
Figure 4 – Project Footprint.....	6
Figure 5 - General Setting Aerial Photograph.....	9
Figure 6 – Southwest Area Plan and Subunits.....	10
Figure 7 – MSHCP Criteria Area Location.....	11
Figure 8 – Reserve Assembly Analysis.....	15
Figure 9 – Land Covers.....	19
Figure 10 – Watershed Location.....	23
Figure 11 – 1967 Aerial Photograph.....	24
Figure 12 – 1996 Aerial Photograph.....	25
Figure 13 – 2007 Aerial Photograph.....	27
Figure 14 – NWI.....	28
Figure 15 – MSHCP Section 6.1.2 Targeted Species Query Results.....	29
Figure 16 – NRCS Soils.....	30
Figure 17 – MSHCP Section 6.1.2 Assessment Results.....	32
Figure 18 – MSHCP Section 6.1.2 Assessment Results – Project Detail.....	34
Figure 19 – NEPS Assessment Area.....	39
Figure 20 – NEPS Query Results.....	44
Figure 21 – CAPS Assessment Area.....	45
Figure 22 – CAPS Query Results.....	49
Figure 23 – BUOW Assessment Area.....	50
Figure 24 – BUOW Query Results.....	57
Figure 25 – BUOW Assessment Results.....	58
Figure 26 – CAGN Detections.....	61

List of Appendices

Appendix A – Grading Plan..... A-1
Appendix B – Reserve Assembly Analysis Results (Acres)..... B-1
Appendix C – Plants Observed C-1
Appendix D – Wildlife Observed D-1
Appendix E – Assessment Photographs..... E-1
Appendix F – Wetlands Climate Tables F-1

1.0 EXECUTIVE SUMMARY

This Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (Analysis) provides the results of the required MSHCP assessments to determine if HAN 220003/Plot Plan Number (PPT) 220029; Haven Winery (Project) was consistent with the goals and objectives of the MSHCP. The subject property (Property and/or Site) was located within MSHCP-designated assessment areas for MSHCP Section 6.1.3 *Protection of Narrow Endemic Plant Species* (NEPS) Assessment Area No. 5 (MSHCP Section 6.1.3), MSHCP Section 6.3.2 *Additional Survey Needs and Procedures* (MSHCP Section 6.3.2) for Criteria Area Plant Species (CAPS) Assessment Area No. 5, and Burrowing Owl (*Athene cunicularia*) (BUOW). In addition, the Project required a MSHCP Section 6.1.2 *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools* (MSHCP Section 6.1.2) assessment, and compliance with MSHCP Section 6.1.4 *Guidelines Pertaining to the Urban/Wildlands Interface* (MSHCP Section 6.1.4).

The Site was located in the eastern portion of the Southwest Area Plan (SAP) within the northwestern portion of Subunit 3-Vail Lake (SU3). The Site was located in the northwestern corner of Cell Group C, and according to HANS 220003, was not targeted for Additional Reserve Land (ARL) in the MSHCP Reserve.

Two potential MSHCP Section 6.1.2 “Riverine” areas were present on the Property. The Project will avoid those features.

The northeastern corner of the Property was located in NEPS and CAPS Assessment Area No. 5. The assessment area on the Property did not support suitable habitat for the targeted plant species.

Low-quality BUOW habitat was surveyed over the course of four protocol-level surveys. No BUOW or BUOW sign was detected during the surveys at any of the California ground squirrel (*Spermophilus beecheyi*) (CGS) burrow/burrow complexes. BUOW were not present on or within 500-feet of the Property and offsite Project areas.

The Project, based on the findings described herein and the future implementation of the recommended mitigation measures, is consistent with the goals and objectives of the MSHCP.

2.0 INTRODUCTION

The purpose of this MSHCP Analysis was to summarize the biological data for the Project, and to document the Project’s consistency with the goals and objectives of the MSHCP. According to the RCA’s MSHCP Information Application (Regional Conservation Authority, 2022), the Project required a:

- MSHCP Section 6.1.3 NEPS assessment,
- MSHCP Section 6.3.2 CAPS assessment, and
- MSHCP Section 6.3.2 BUOW assessment.

In addition, the Project required a MSHCP Section 6.1.2 assessment, and compliance with MSHCP Section 6.1.4.

The Property was located in the “wine country” area east of Temecula, California on the southwest corner of De Portola Road and Camino del Vino. The physical address of the Site was 41625 Camino del Vino, Temecula, CA 92592. Figure 1 - *Regional Map* (Page 2) and Figure 2 - *Vicinity Map* (Page 3) depict the location of the Property.

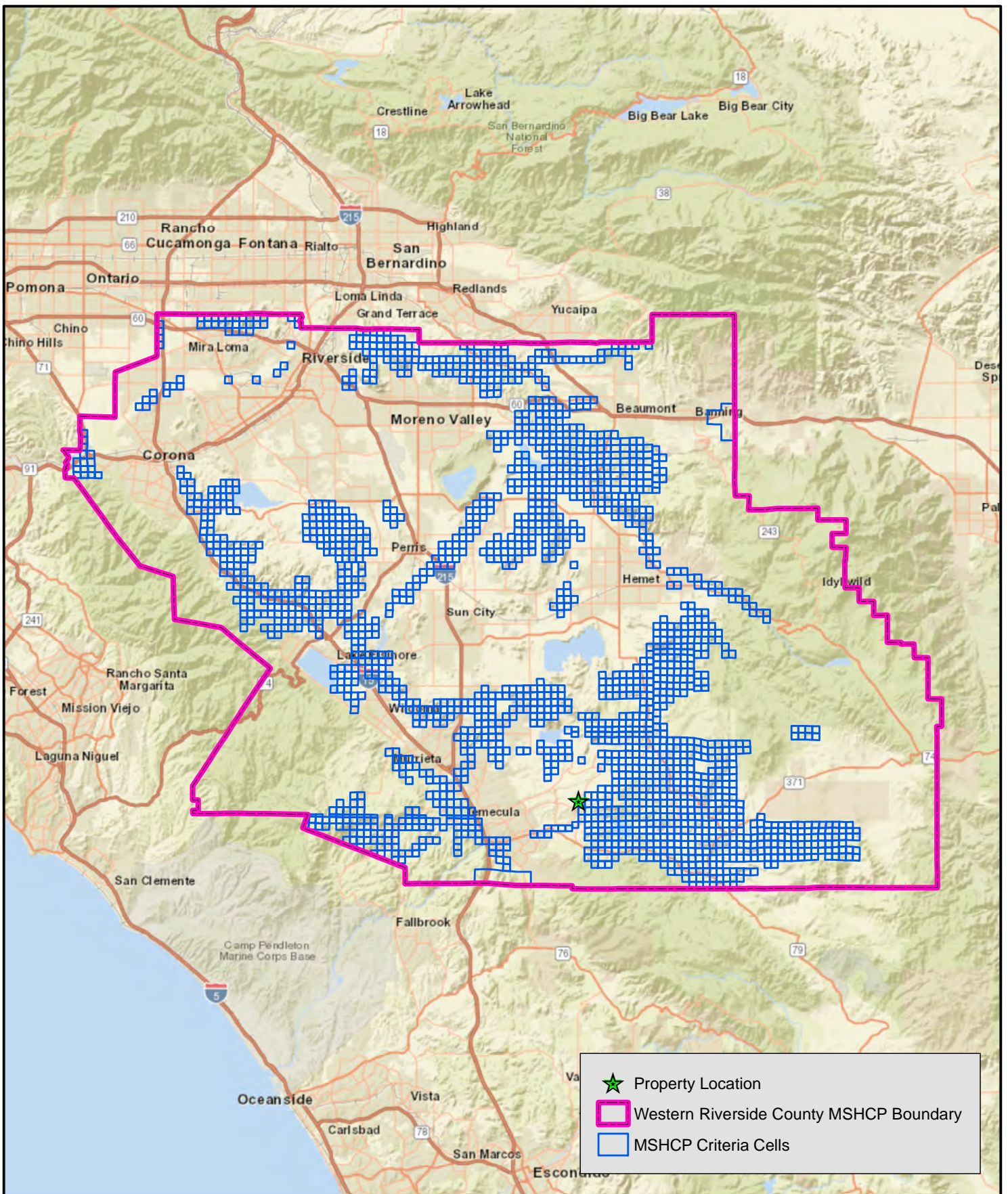


FIGURE 1
Regional Map



0 5 10 20 Miles
1:600,000

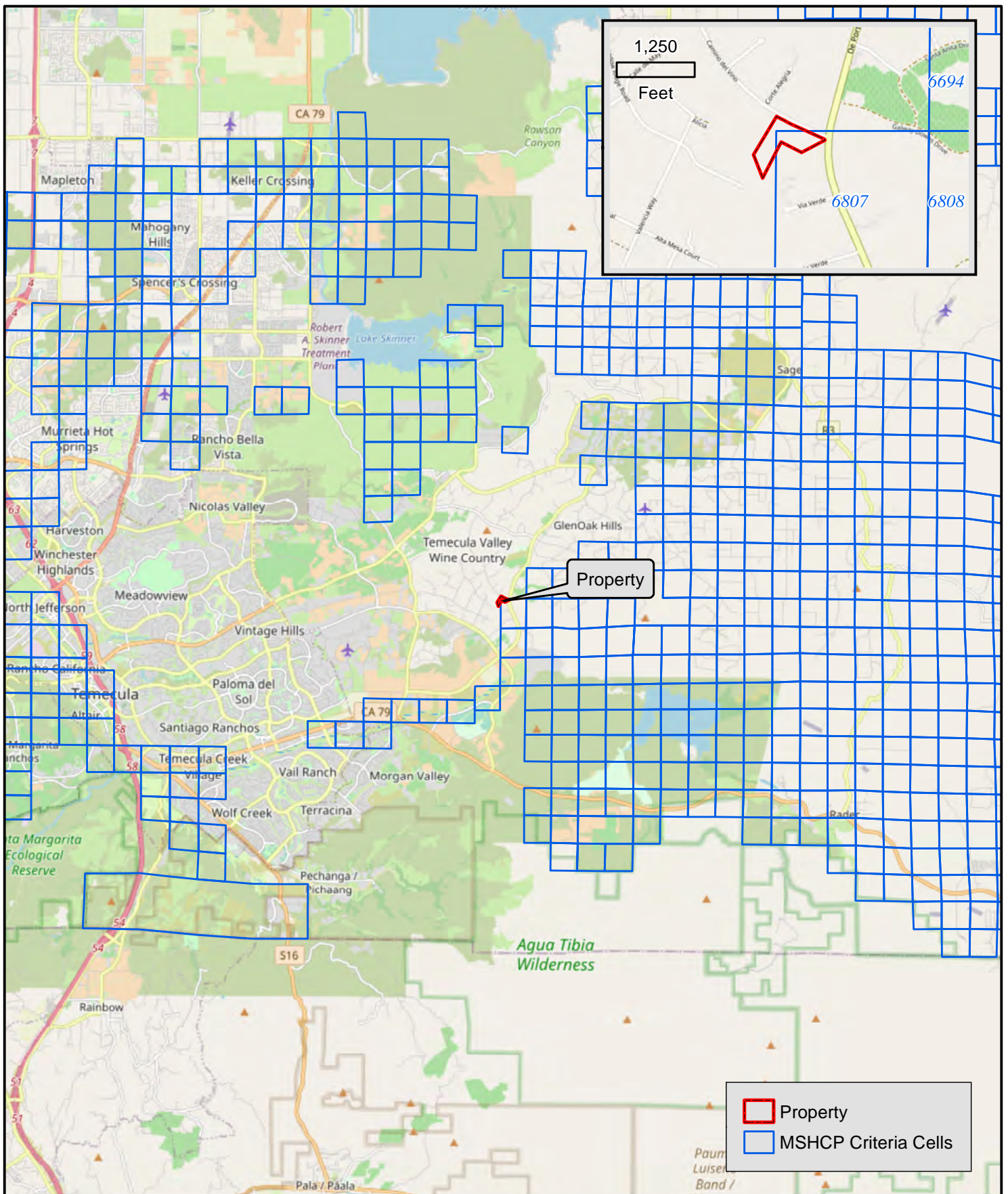
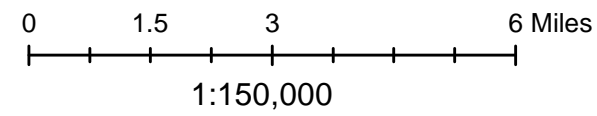


FIGURE 2
Vicinity Map



The Site was geographically located in Township 7 South, Range 1 West, in Section 31 of the Bachelor Mountain 7.5 Minute United States Geological Survey (USGS) California Quadrangle. *Figure 3 - USGS Topographic Map* (Page 5) depicts the Project's geographic location. The Universal Transverse Mercator (UTM) coordinates of the approximate center of the Site was Zone 11S, 497910-meters (m) east, 3708960m north, North American Datum 1983 (NAD83).

2.1 Project Area

The Project consisted of Assessor's Parcel Number (APN) 927-670-009 owned by the Refuge Estates, LLC, and a portion of the Camino del Vino Right-of-Way (RW) for ingress/egress. All Site and Project acreages throughout the remainder of this document were based on the Project AutoCAD file prepared by Robin B. Hamers & Associates, Inc. Civil Engineers (RBH) which was converted for ArcGIS use and georeferenced by Geovironment Consulting and Searl Biological Services (SBS). Project areas outside of the Property were considered offsite. *Figure 4 – Project Footprint* (Page 6) depicts the Property and the Project development footprint (i.e., Onsite/Offsite Daylight/Limits of Grading, etc.). The Property totaled 9.26-acres¹. The total area proposed for ground disturbance on the Property was 2.36-acres, and the total area offsite was 0.11-acre for a total of 2.47-acres.

2.1.1 Project Area within MSHCP Criteria Area

The Property was partially located within, and partially located outside of the MSHCP Criteria Area. Approximately 4.10-acres of the 9.26-acre Property was located in the northwest corner of MSHCP Criteria Cell 6807 of Cell Group C. Also, approximately 0.41-acre of the 2.36-acre onsite Project area (17% of the footprint) was located within MSHCP Criteria Cell 6807 of Cell Group C. This is detailed further in Section 3.0 of this document.

2.2 Project Description

PPT 220029 proposes to construct a Class II Winery on approximately 9.26 gross acres. The facility will total 10,847-square feet (sqft); with a 2,378-sqft Wine Tasting building, 2,378-sqft Wine Tasting room, break room and restroom building, 1,532-sqft Storage building, Wine Lab, Member's Tasting Room building, 2,192-sqft Barrel Room, 795-sqft office building, and a 1,568-sqft Case Storage building. The Project will be developed in one phase.

No temporary impacts are proposed or anticipated as all impacts associated with the Project will occur within the footprint depicted on Figure 4. This includes stockpiling and staging equipment.

A detailed grading plan of the Project is provided in Appendix A.

2.3 Covered Roads

According to the RCA's MSHCP Information Application (Regional Conservation Authority, 2022), Camino del Vino was a Covered Road designated as a "Secondary" road. The Project proposes 0.11-acre of improvements within the RW for ingress/egress.

2.4 Covered Public Access Facilities

The Project does not entail the construction of, or improvements to, a Covered Public Access Facility.

¹ All Property and Project acreages throughout this document were based on an AutoCAD file from RBH that was converted for GIS use. Acreages may not be exact and may not match other sources (i.e., County APNs, RBH, etc.) due to the conversion and georeferencing process.

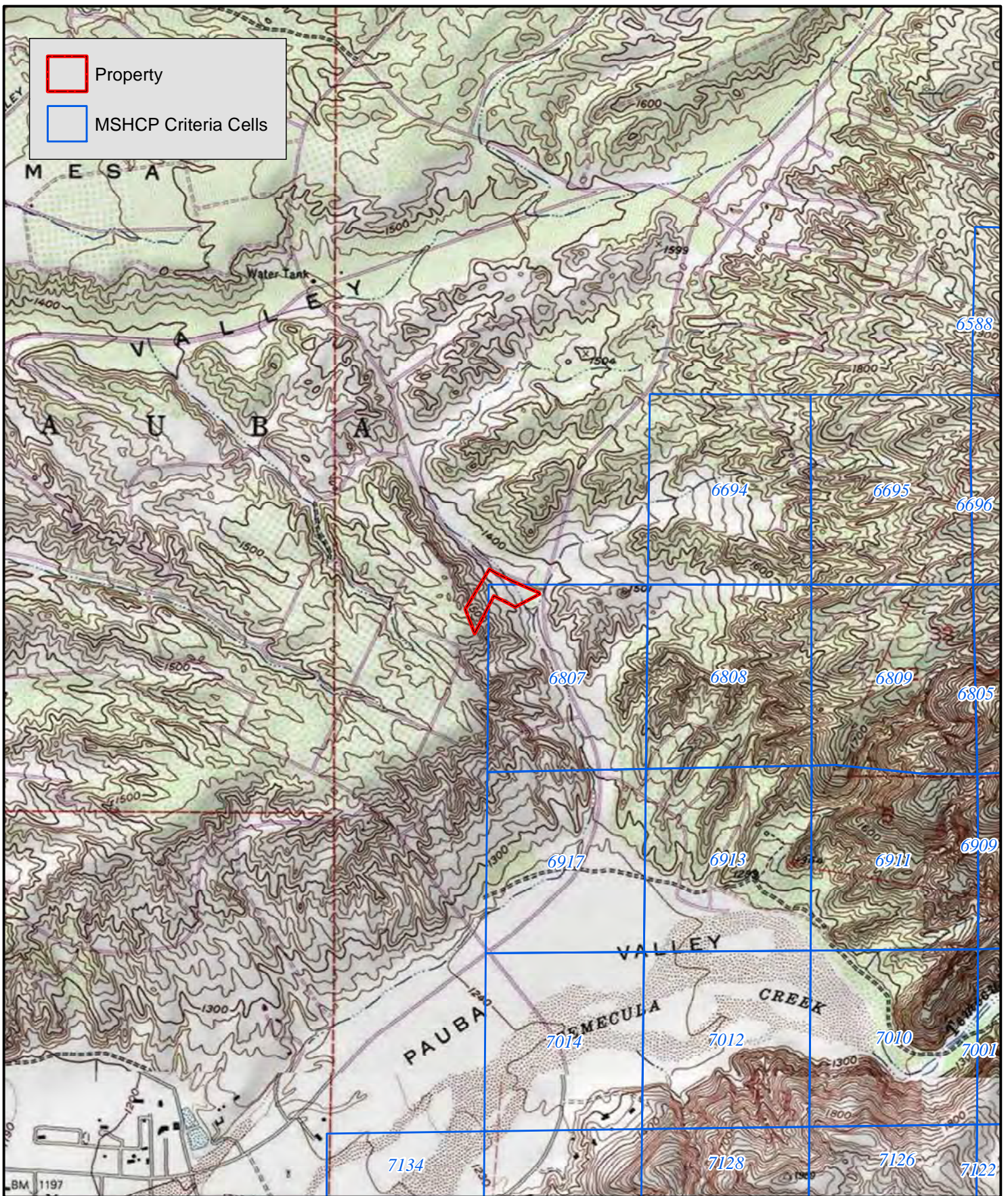
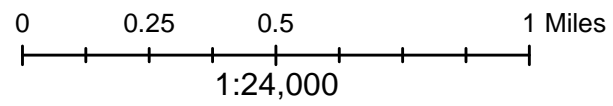
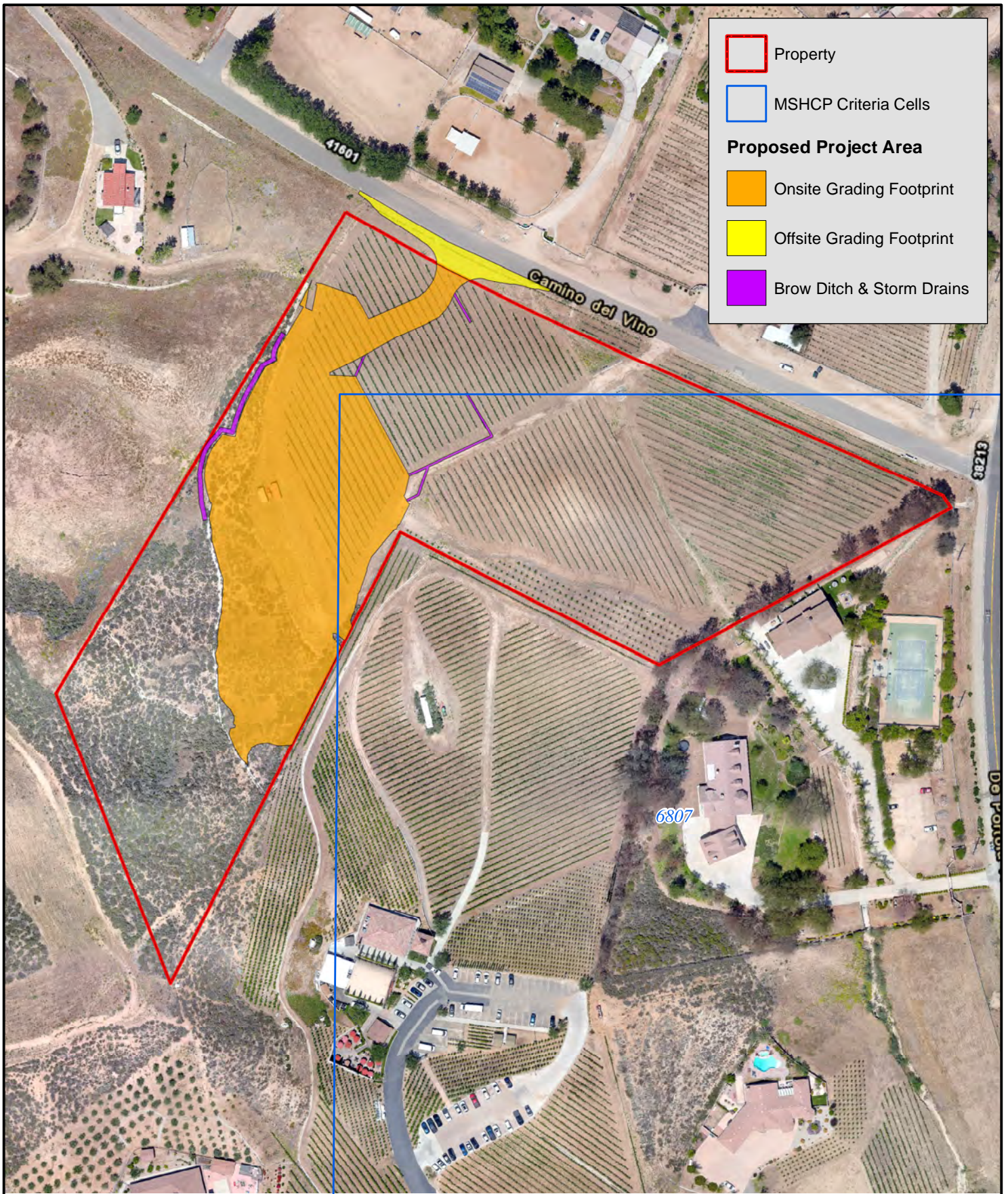


FIGURE 3
USGS Topographic
Map





Property
 MSHCP Criteria Cells
Proposed Project Area
 Onsite Grading Footprint
 Offsite Grading Footprint
 Brow Ditch & Storm Drains

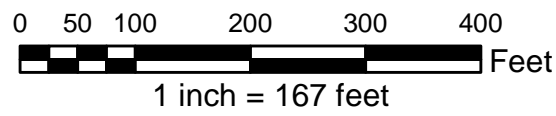


FIGURE 4
Project Footprint

2.5 General Setting

The Property was located in the rural “Temecula Wine Country” area approximately 2.8-miles northeast of the City of Temecula. This area consisted of vineyards/ agricultural areas, wineries, rural residential areas, ranchettes, horse ranches, and natural open space. *Figure 5 – General Setting Aerial Photograph* (Page 9) depicts the setting of a 1:80,000-scale area around the Property.

3.0 RESERVE ASSEMBLY ANALYSIS

The MSHCP "...is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on Conservation of species and their associated Habitats in Western Riverside County" (Dudek & Associates, Inc., 2003). The MSHCP encompasses approximately 1.26 million acres of land that stretches from the crest of the San Jacinto Mountains west to the Orange County boundary. Ultimately, the MSHCP will result in the conservation of more than 500,000 acres (347,000 acres on existing Public/Quasi-Public Lands [PQP] and 153,000-acres of Additional Reserve Lands [ARL]) that focuses on the 146-species covered by the MSHCP (Dudek & Associates, Inc., 2003).

The MSHCP is a criteria-based plan of which Riverside County's (County) General Plan Area Plan boundaries were utilized to provide the broad organizational framework for the criteria (Dudek & Associates, Inc., 2003). A Conceptual Reserve Design (CRD) was sketched for each Area Plan using vegetation, planning species occurrence data, and biological issues and considerations as the primary criteria for the CRD (Dudek & Associates, Inc., 2003). After sketching the CRD, USGS quarter sections (i.e., approximate 160-acre cells) were then overlain on the CRD such that each "Criteria Cell" is an area in real space with a legal description (Dudek & Associates, Inc., 2003). Criteria Cells were then either aggregated into a Criteria Cell Group or retained as individual Criteria Cells based upon the level of conservation and configuration of the Criteria Cell or Criteria Cell Group (Dudek & Associates, Inc., 2003). Criteria Cells were assigned an identification number and each Criteria Cell Group was assigned a letter code. Conservation Criteria was drafted for each Criteria Cell or Criteria Cell Group to provide an explicit description of the areas to be targeted for conservation (Dudek & Associates, Inc., 2003). Those areas located outside of the designated Criteria Cells and/or Criteria Cell Groups are not targeted to be included within the 153,000-acres of ARL.

3.1 Southwest Area Plan

The Site was located in the eastern portion of the Southwest Area Plan (SAP). The SAP was approximately 182,860-acres (286 square miles) with a target conservation acreage between 58,295 to 72,155-acres. (Dudek & Associates, Inc., 2003). The target conservation acreage consisted of an estimated 35,795-acres of existing PQP Lands with a range of 22,500 to 36,360-acres of ARL (Dudek & Associates, Inc., 2003).

3.1.1 Subunit

The SAP consisted of seven Subunits. 4.10-acres of the Site was located in the northwestern corner of Subunit 3-Vail Lake (SU3) as depicted by *Figure 6 – Southwest Area Plan and Subunits* (Page 10). The target ARL for SU3 was between 10,065 and 12,930-acres (Dudek & Associates, Inc., 2003). The planning species and biological issues and considerations for SU3 according to the MSHCP are presented below.

1. Planning Species²:

- arroyo toad
- California red-legged frog
- bald eagle

² Subsets of Covered Species that are identified to provide guidance for Reserve Assembly in Cores and Linkages and/or Area Plans.

- Bell's sage sparrow
- Cooper's hawk
- least Bell's vireo
- prairie falcon
- tree swallow
- yellow-breasted chat
- arroyo chub
- Los Angeles pocket mouse
- San Diego mountain kingsnake
- Parry's spine flower
- cactus wren
- double-crested cormorant
- osprey
- purple martin
- tricolored blackbird
- yellow warbler
- Aguanga kangaroo rat
- mountain lion
- western pond turtle
- slender-horned spine flower
- coastal California gnatcatcher
- downy woodpecker
- peregrine falcon
- southwestern willow flycatcher
- white-tailed kite
- Quino checkerspot butterfly
- bobcat
- Stephens' kangaroo rat
- Nevin's barberry
- Vail Lake ceanothus

2. Biological Issues and Considerations³:

- Establish a Core Area providing Live-In Habitat for identified Planning Species and other species.
- Conserve connections to Agua Tibia Wilderness, Arroyo Seco and Wilson Valley.
- Conserve key populations of Vail Lake ceanothus, slender-horned spine flower and Nevin's barberry.
- Conserve alluvial scrub and chaparral for Parry's spine flower.
- Conserve nesting location for purple martin at Dripping Springs.
- Maintain Core Area for bobcat.
- Maintain Core Area for mountain lion.
- Maintain Core and Linkage Habitat for the Stephens' kangaroo rat.
- Determine presence of potential populations of Aguanga kangaroo rat in Temecula Creek, Vail Lake and its tributaries.
- Determine presence of potential Core Area for Los Angeles pocket mouse in Temecula Creek and around Vail Lake.
- Maintain Core and Linkage Habitat for arroyo toad.
- Maintain Core Area for San Diego Mountain kingsnake.
- Maintain Core and Linkage Habitat for western pond turtle.
- Maintain Core and Linkage Habitat for Quino checkerspot butterfly.

3.1.2 Criteria Area – Cell Group C

The 4.10-acres of the Site was located in the northwest corner of Criteria Cell 6807 which comprises the northwest corner of Cell Group C as depicted by *Figure 7 – MSHCP Criteria Area Location* (Page 11). The MSHCP conservation criteria for Cell Group C states the following:

Conservation within this Cell Group will contribute to assembly of Proposed Core 7 and Proposed Constrained Linkage 24. Conservation within this Cell Group will focus on Riversidean alluvial fan sage scrub, riparian scrub, woodland and forest habitat along Temecula Creek and adjacent chaparral, coastal sage scrub,

³ A list of biological factors to be used by the Plan Participants in assembly of the MSHCP Conservation Area.

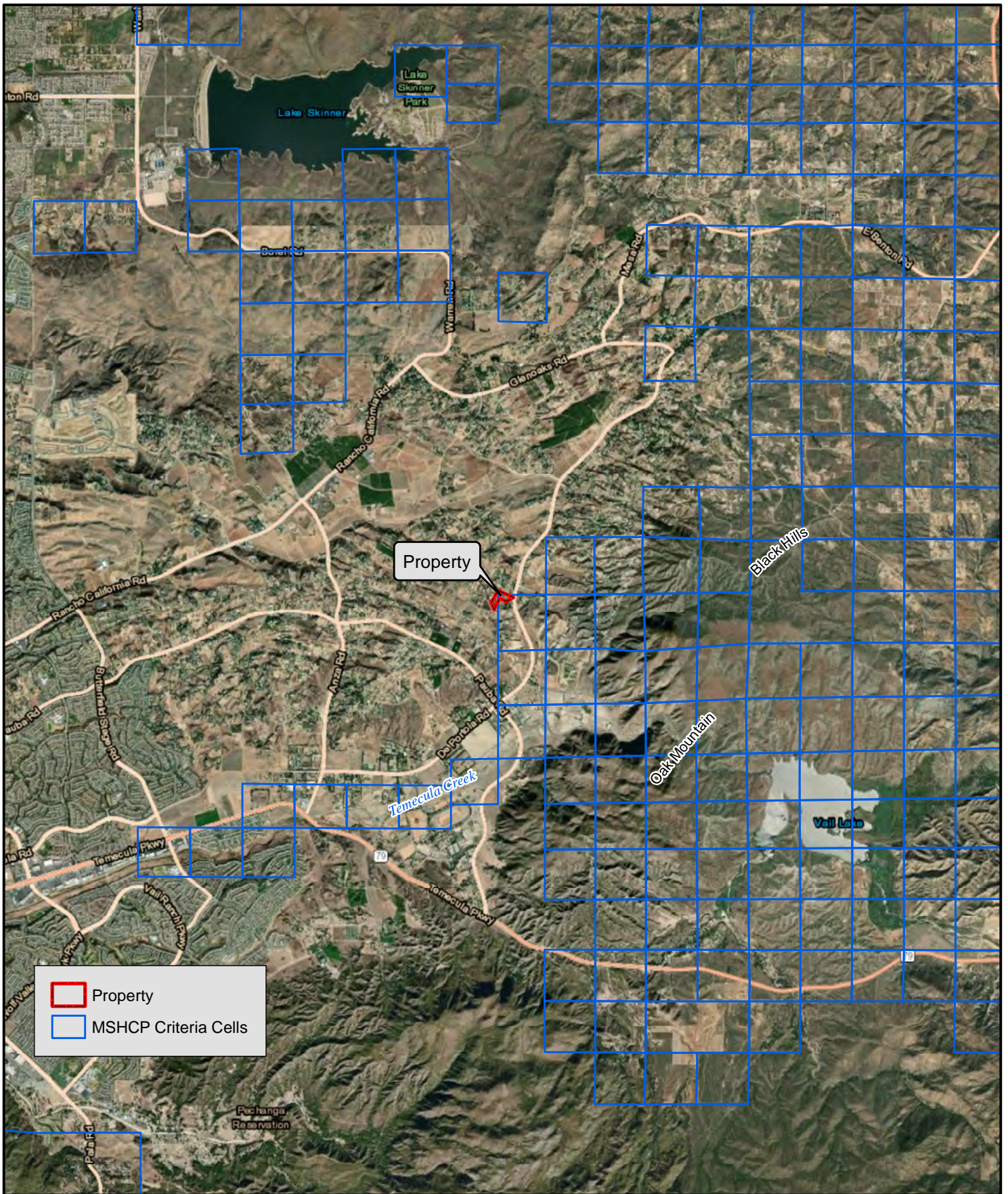
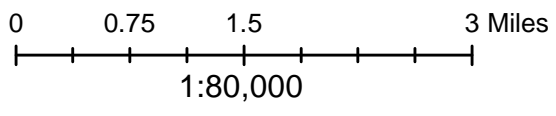


FIGURE 5
General Setting
Aerial Photograph



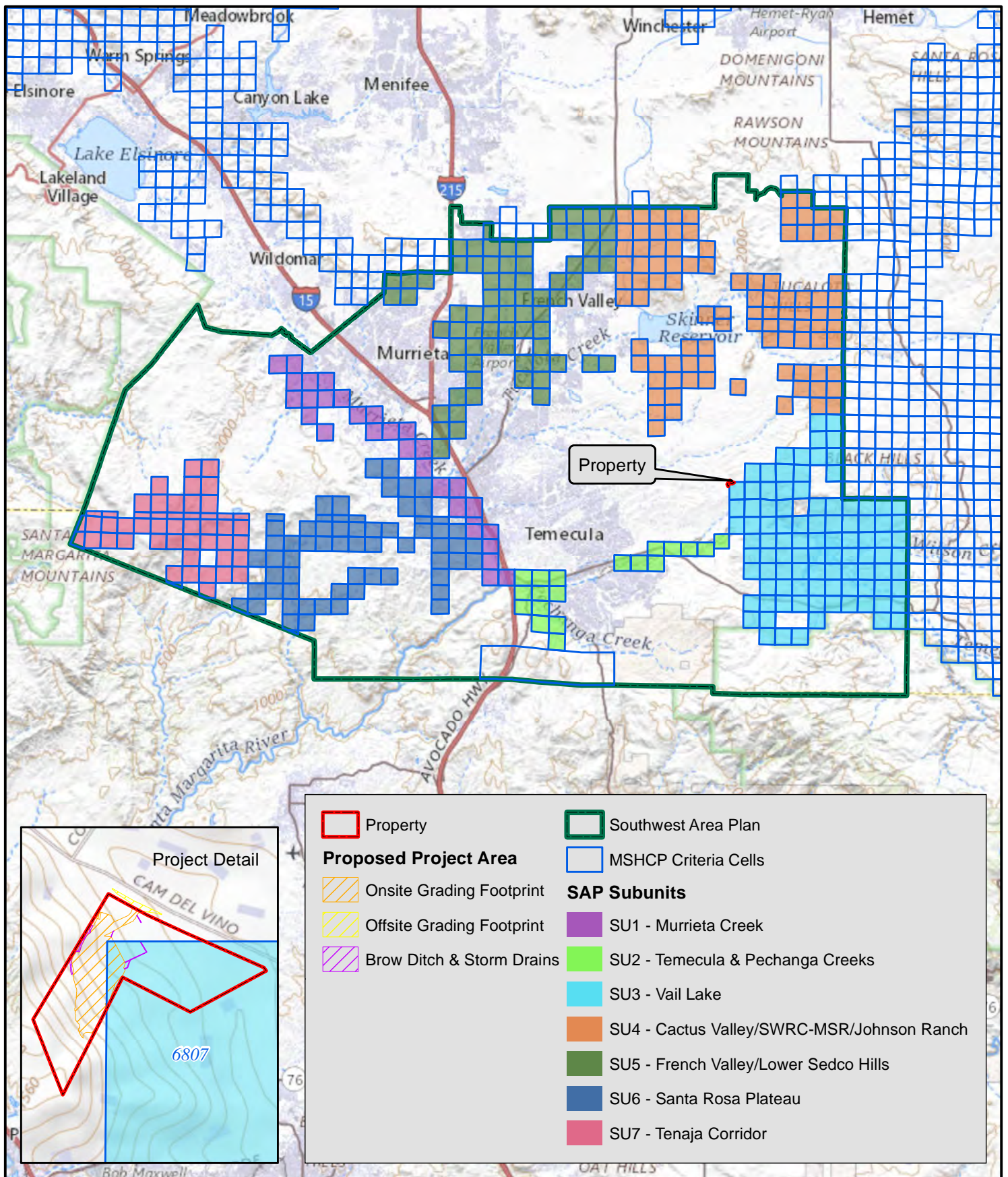
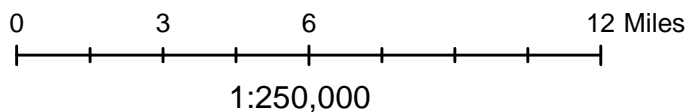


FIGURE 6
Southwest Area Plan
and Subunits



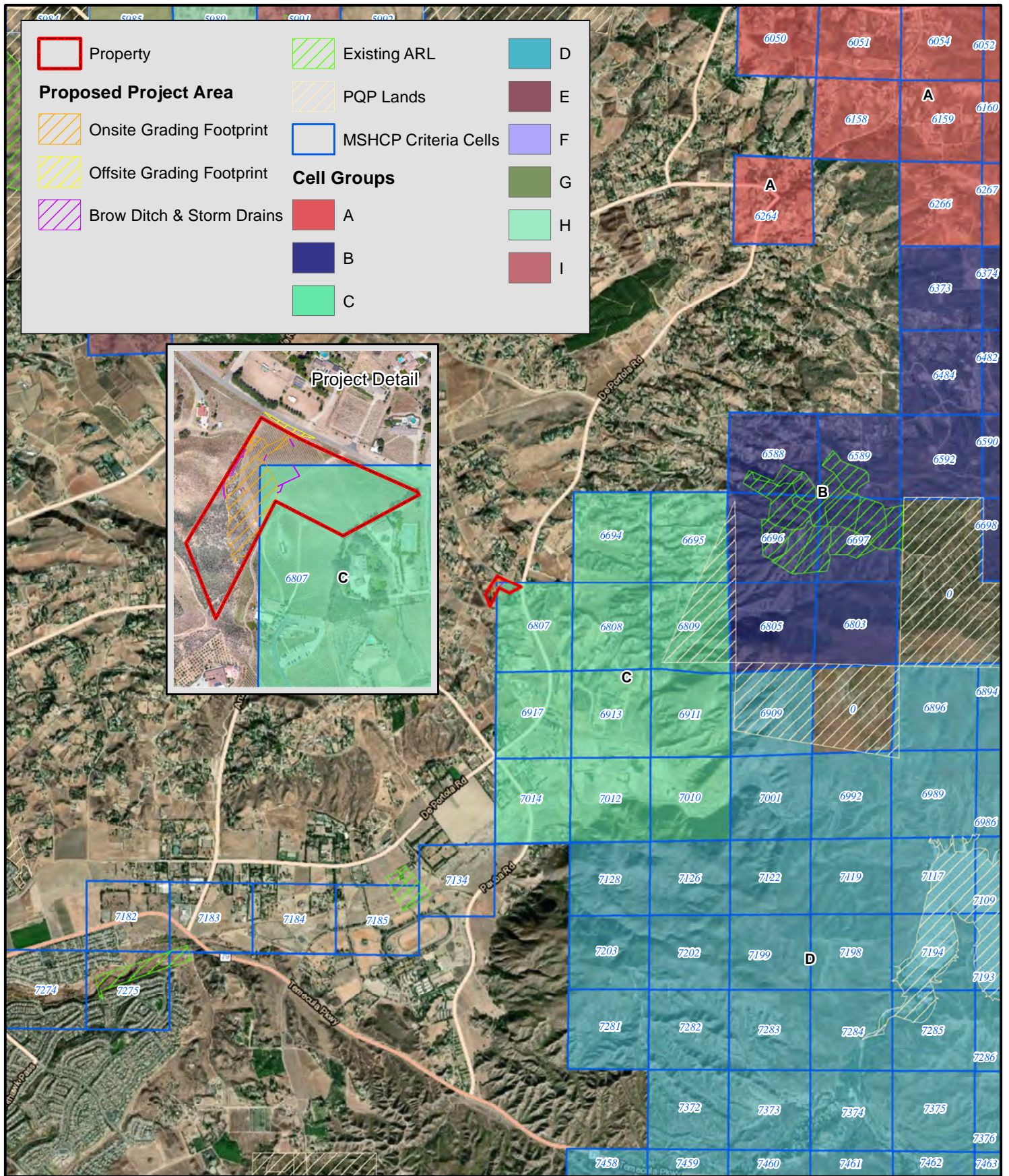
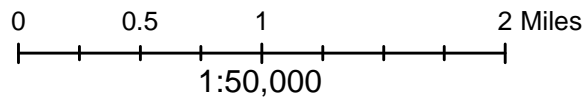


FIGURE 7
MSHCP Criteria
Area Location



grassland, woodland and forest habitat. Areas conserved within this Cell Group will be connected to chaparral, coastal sage scrub, riparian scrub, woodland and forest habitat proposed for conservation in Cell Group D to the southeast and to Riversidean alluvial fan sage scrub habitat proposed for conservation in Cell #7134 to the southwest. Conservation within this Cell Group will range from 60%-70% of the Cell Group focusing in the southern and central portions of the Cell Group.

3.1.3 Proposed Core 7

Cell Group C was located along the western edge of Proposed Core 7. According to the MSHCP, the purpose of assembling a Core Area was to form “a block of Habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species.” Proposed Core 7 was the largest in size of the MSHCP’s Proposed Cores, and according to the MSHCP the primary goal of the Core Area was to provide live-in habitat for the following Planning Species:

- arroyo toad
- Quino checkerspot butterfly
- tricolored blackbird
- Bell’s sage sparrow
- northern harrier
- white-tailed kite
- coastal California gnatcatcher
- least Bell’s vireo
- Stephens’ kangaroo rat
- Los Angeles pocket mouse
- Payson’s jewelflower
- California red-legged frog
- Cooper’s hawk
- southern California rufous-crowned sparrow
- cactus wren
- yellow warbler
- loggerhead shrike
- tree swallow
- Aguanga kangaroo rat
- Bobcat
- mountain lion
- Parry’s spine flower

3.1.4 Proposed Constrained Linkage 24

Cell Group C was located along the northeastern edge of Proposed Constrained Linkage 24. The purpose of assembling a Constrained Linkage was to form “a constricted connection expected to provide for movement of identified Planning Species between Core Areas, where options for assembly of the connection are limited due to existing patterns of use.” According to the MSHCP, Proposed Constrained Linkage 24 was comprised of the portion of Temecula Creek east of Redhawk Parkway and west of Pauba Road with the primary goal to allow for the movement for the following Planning Species:

- arroyo chub
- coast range newt
- Cooper’s hawk
- white-tailed kite
- yellow-breasted chat
- downy woodpecker
- least Bell’s vireo
- Los Angeles pocket mouse
- California red-legged frog
- western pond turtle
- yellow warbler
- southwestern willow flycatcher
- loggerhead shrike
- tree swallow
- bobcat

3.2 Reserve Assembly Analysis Methods

The Reserve Assembly Analysis is the first step in the MSHCP Consistency Analysis. The purpose of the Reserve Assembly Analysis is to ensure that Assembly goals (i.e., acreages and function) are still achievable with the development of a project site. According to the RCA, in order to perform the Reserve Assembly Analysis, the following acreages are obtained to determine if a proposed project is consistent with the Reserve Assembly goals for a particular Criteria Cell, Cell Group and/or Subunit:

- Cell or Cell Group (whichever is applicable)
- Described Conservation - If range is listed, then the mid-range goal is used (i.e., 60%-70%; then 65% is used)
- Proposed Project
- Existing and Approved Pending Development (currently active [Joint Project Review⁴(s)] JPRs obtained from RCA)
 - Existing development is any developed area within the Cell/Cell Group such as single-family home, subdivisions, commercial or industrial buildings, roads or other improved public facilities (fire stations, flood control channel etc.). It may in some cases be appropriate to exclude as developed the undeveloped portion of single-family homes on large lots (> 1 acre) if the undeveloped portion of the lot may contribute to Reserve Assembly. Existing homes, generally on large lots, may specifically be described for conservation as part of a linkage/constrained linkage with no other viable route; therefore, a portion of these large lots may be able to be categorized as “Potential Conservation.”
- Covered Roads (existing and proposed) - Covered roads not yet built are counted as future development.
- Existing and Pending Conservation – Existing MSHCP ARL acres are counted towards Cell/Cell Group Reserve Assembly goals. Conservation planned through a completed JPR but not yet conveyed to the RCA is counted as pending conservation.
- PQP acreage (already included in the baseline 347,000-acre existing conserved lands inventory) does not count towards the described ARL goal (153,000-acres) in the Cell or Cell Group, whichever is applicable. Cell/Cell Group acreage goals describe new conservation (ARL) acres beyond the PQP baseline. In some cases, the RCA may allow the PQP to be included as existing conservation, but this will need to be handled on a case-by-case basis, and in coordination with the Wildlife Agencies.
- Proposed Project Avoidance Areas (must be protected by, or proposed to be protected by, deed restriction, and should not include vegetation management or fuel modification zones).
- Undeveloped Areas Potentially Available for Future Conservation - Existing disturbed/developed areas, such as agricultural lands, that may still be potentially available for acquisition as future conservation may also be considered in this category. These areas should be labeled using their current land use. All of these areas that are “undeveloped” or “existing disturbed/developed” that are being considered as potentially available must be located in the area that can functionally contribute to the Reserve, specifically the Reserve feature (Core and/or Linkage) that is the focus of the Cell or Cell Group criteria.

3.3 Reserve Assembly Analysis Results

Cell Group C consisted of a configuration of 11 Criteria Cells. According to the County’s GIS “Cell Groups” feature class, Cell Group C totaled 1,780.52-acres. The target conservation range of the Cell Group was 60% to 70% with the ultimate target, per the RCA and EPD, being 65% which is approximately 1,157.34-acres. Current land use within Cell Group C primarily consisted of rural residential areas, flood control facilities, agricultural vineyard, and wineries. Three MSHCP Covered Roads; Camino del Vino, De Portola Road, and Pauba Road were present within Cell Group C. The future widening of Pauba Road is

⁴ “The process by which the RCA (Regional Conservation Authority) performs a consistency review of the proposed project per the MSHCP. This occurs for projects that trigger a discretionary approval by the city/County of Riverside and occurs only when the property is located within a Criteria Cell (roughly 160-acre rectangle that overlays parcels and has described conservation) (Regional Conservation Authority, 2022).

accounted for in both Proposed Core 7 and Proposed Constrained Linkage 24 as a Major Covered Activity/Planned Facility in which the MSHCP specifically states that future Pauba Road improvements will “span Temecula Creek with a bridge.”

Figure 8 – Reserve Assembly Analysis (Page 15) depicts the results of the MSHCP Reserve Assembly for Cell Group C. Mapped areas were classified as follows:

- JPR
 - All mapped areas beginning with the prefix “JPR” were properties that have completed the JPR process. The JPR mapped areas were obtained by SBS from the RCA for the purpose of this report.
 - JPR Classifications
 - Avoidance Area: Biological resource that will be “avoided” (i.e., no impacts) by the project and is protected by a deed restriction or Environmental Constraints Sheet (ECS).
 - Proposed Development: Areas that have been approved for development.
 - Proposed MSHCP Conservation: Areas that will be conserved as ARL by the RCA acquiring the land or through other mechanisms, such as a Conservation Easement, which will be included in the MSHCP Reserve.
 - To Remain As Is: In Cell Group C, this area was an area that was previously classified as Development but has been amended by the RCA to non-developed area - to remain in agriculture.
- PQP Land
 - Public/Quasi Public Lands within Cell Group C.
- Areas Classified by SBS based primarily on Aerial Imagery
 - Existing Development: Areas that were likely not available for future conservation due to current land use such as residential homes and associated yards.
 - A lack of connectivity was also considered.
 - Areas mapped west of De Portola Road in the central portion of Cell Group C based on guidance from the EPD that those areas are not targeted for long-term conservation for Proposed Core 7.
 - Potential ARL
 - Areas that appeared to provide land that would contribute to the targeted conservation goals for Cell Group C based on habitat while attempting to consider habitat connectivity.
 - This included in some instances, particularly in the northern-central portion of Cell Group C, portions of existing single-family lots that appeared to support targeted habitats.
 - Property
 - The portion of the Property that was within Cell Group C.
 - Project Footprint: The portion of the Project that was within Cell Group C; however, the acreage was not included in the calculation due to the area already being accounted for with the Property area.
 - RCWD Owned Land (Not Available for Conservation)
 - The EPD Staff has stated that all lands owned and operated by Non-Permittees of the MSHCP, in this case the Rancho California Water District (RCWD), be classified as “Not Available for Conservation.”

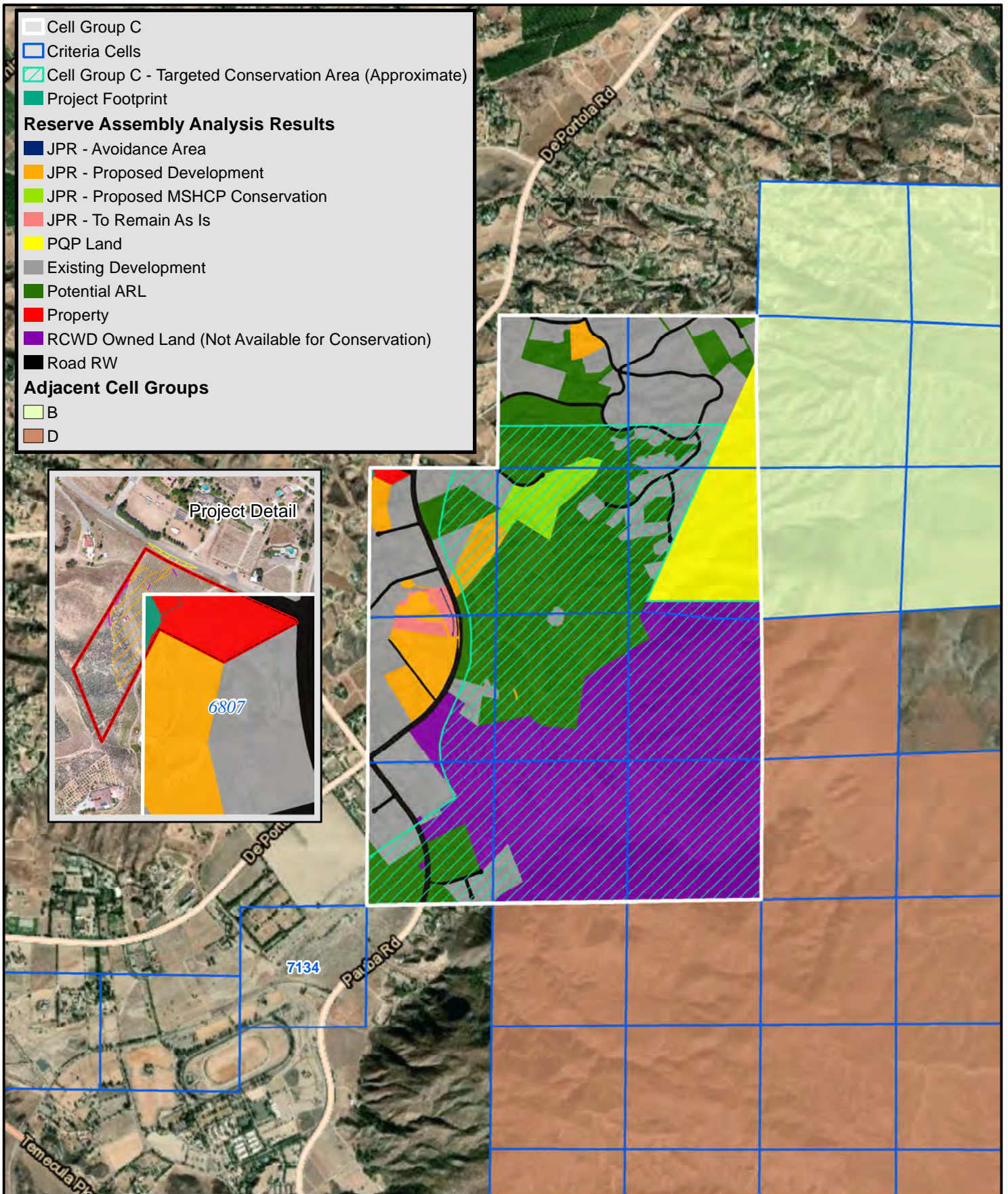


FIGURE 8
Reserve Assembly
Analysis



0 0.25 0.5 1 Miles
1 inch = 2,500 feet

- Although the California Environmental Quality Act (CEQA) specifically states that any future projects on lands owned by non-Permittees must consider whether that project will “Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan,” these lands are considered unavailable for acquisition regardless of whether they would contribute to the goals of the MSHCP.
- Road RW
 - Roads with a formal RW designation based on the County’s GIS “Parcel Assessor” feature class. These lands are generally not available for conservation.
 - In Cell Group C, there was one instance where a JPR – Proposed Development area overlapped a Road RW accounting for an additional 0.75-acre. That overlap area was subtracted from the calculations in this document.

The Reserve Assembly Analysis indicates that Cell Group C has a substantial deficit in the land available to meet the 65% conservation goal of 1,157.34-acres. Based on Figure 8, current JPRs will conserve 32.43-acres with an additional 459.17-acres of Potential ARL for a total of 491.60-acres. That is a deficit of 665.74-acres. In addition to the ARL acreage deficit, the Reserve Assembly Analysis indicates that the assembly goals cannot be met as well. The RCWD owns the land in critical areas that would contribute to the assembly goals. The RCWD owns 621.64-acres of the land within Cell Group C, most of which is open space. The 65% target goal would still be short 44.10-acres if that land were available; however, the minimum target of 60% would be exceeded by 44.93-acres accounting for approximately 63% conservation. A detailed breakdown of the Reserve Assembly Analysis acreages is provided in Appendix B.

3.4 Reserve Assembly Analysis Discussion

The County determined through HAN 220003, dated March 15, 2022, that the 4.10-acre portion of the Property in Cell Group C was not required for inclusion in the MSHCP Reserve. The Property was located outside of the targeted conservation area, and though the southern portion consisted of California sagebrush (*Artemisia californica*)-California buckwheat (*Eriogonum fasciculatum*) scrub, most of that area was located outside of Cell Group C and lacked connectivity to targeted conservation areas.

The Reserve Assembly Analysis indicates that the conservation goals of Cell Group C cannot be achieved. The land is not available to assemble a functioning Core or Linkage. The lack of availability of all non-Permittee owned lands, such as those owned by the RCWD, for future ARL not only has negative implications for the Reserve Assembly goals of Cell Group C, but potentially jeopardizes the goals of the MSHCP in other locations. For example, the RCWD owns 6,352.75-acres of the land not classified as PQP Land⁵ in the adjacent Cell Group D. The non-PQP Land owned by the RCWD accounts for 56% of Cell Group D which is targeting 80% conservation. It is highly unlikely that the acreage and assembly goals of Cell Group D can be achieved if this land is not available for future ARL. Potential solutions may be currently being pursued and could include agreements with non-Permittees, Criteria Refinements, or Minor/Major Amendments to the MSHCP.

3.5 Public Quasi-Public Lands

The Project will not directly or indirectly impact PQP Lands. The nearest PQP Lands were located approximately 1.0-mile east-southeast of the Property.

⁵ The RCWD also owns Vail Lake which is classified as PQP Land and accounts for an additional 635.23-acres.

4.0 VEGETATION MAPPING

Vegetation community classifications are typically conducted in accordance with the California Department of Fish and Wildlife’s (CDFW) Vegetation Classification and Mapping Program (VegCAMP) *List of Vegetation Alliances and Associations* (Natural Communities List) (California Department of Fish and Wildlife, 2022) and *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, & Evens, 2009). Vegetation communities and land covers are mapped in the field utilizing both Collector for ArcGIS installed on smart phone connected to an iSXBlue2+ GNSS submeter GPS receiver (Collector) and paper maps (i.e., aerial photographs and USGS topographic maps).

Some land cover types are not classified in the above-referenced sources (i.e., developed, disturbed, agriculture, etc.); therefore, each land cover is designated with a common name for the purpose of this report. A brief description of the vegetation communities/land covers present on the Property and offsite Project area is presented below. Acreages for the Property, Project, and those respective areas within Cell Group C are provided in *Table 1 – Land Covers* (below). The distribution of vegetation communities and land covers are depicted on *Figure 9 – Land Covers* (Page 19). A complete list of the flora observed on the Property is provided in Appendix C, and a complete list of the fauna observed on, above, or near the Property is provided in Appendix D.

- **Agriculture:** The majority of the northern portion of the Property was planted in vineyard.
- **California Sagebrush-California Buckwheat Scrub:** The southern portion of the Site consisted of a steep, north-facing slope with California sagebrush-California buckwheat scrub dominant. These two coastal sage scrub species were co-dominant and mixed throughout the slope. Associate native species included deerweed (*Acmispon glaber*), hairy cottonthorn (*Tetradymia comosa*), and occasionally, near the peak of the slope, snapdragon bush-penstemon (*Keckiella antirrhinoides* var. *antirrhinoides*).
- **Developed:** The only hardscape on the Property consisted of a concrete headwall and rip-rap apron for the concrete encased culverts beneath the existing dirt access road.
- **Disturbed/Ornamental/Ruderal:** This land cover consisted of bare ground, a stand of ornamental gum trees (*Eucalyptus* spp.), and ruderal, non-native grasses and forbs. The dominant non-native vegetation consisted of shortpod mustard (*Hirschfeldia incana*), tumbleweed (*Amaranthus albus*), bearded Mediterranean-grass (*Schismus barbatus*), and filaree (*Erodium* spp.).
- **Disturbed/Ruderal:** This land cover was identical to the above without the ornamental component.

Table 1 – Land Covers (Acres)

COMMON NAME/VEGCAMP COMMUNITY	PROPERTY	PROJECT		CELL GROUP C	
		Onsite	Offsite	Property	Project ⁶
Agriculture					
No corresponding VegCAMP Alliance	4.72	0.92	0	3.25	0.33
California Sagebrush-California Buckwheat Scrub					
VegCAMP Alliance California sagebrush scrub 32.015.00	3.00	0.90	0	0.02	0.01
VegCAMP Association <i>Artemisia californica – Eriogonum fasciculatum</i> 32.015.05					

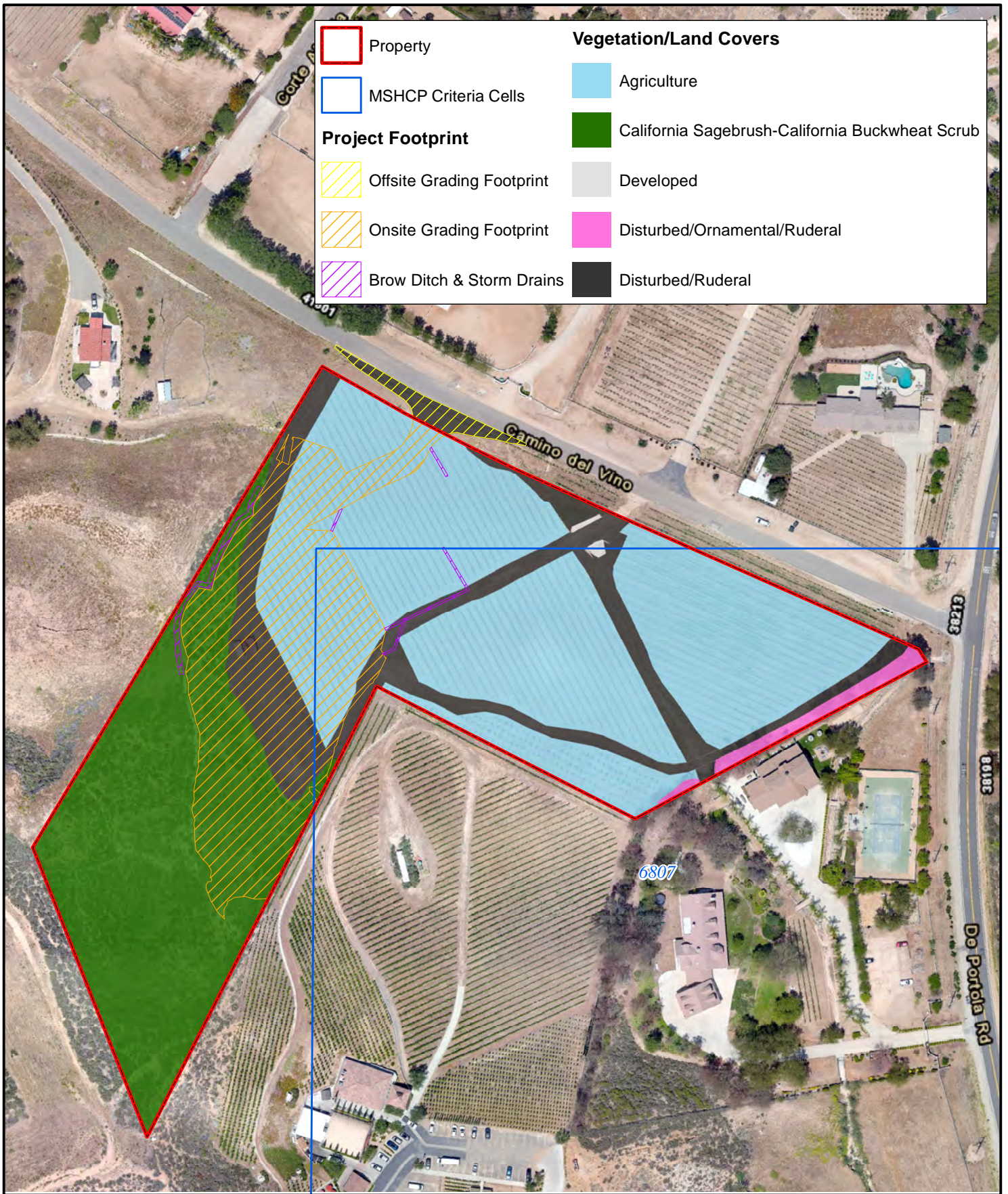
⁶ Offsite Project Area was not in Cell Group C.

COMMON NAME/VEGCAMP COMMUNITY	PROPERTY	PROJECT		CELL GROUP C	
		Onsite	Offsite	Property	Project ⁶
Developed					
No corresponding VegCAMP Alliance	0.01	0	0	0.004	0
Disturbed/Ornamental/Ruderal					
VegCAMP Alliance Upland mustards or star-thistle fields 42.013.00					
VegCAMP Association <i>Hirschfeldia incana</i> 42.011.05	0.14	0	0	0.14	0
VegCAMP Association <i>Eucalyptus (globulus, camaldulensis)</i> 79.100.02					
Disturbed/Ruderal					
VegCAMP Alliance Upland mustards or star-thistle fields 42.013.00	1.39	0.54	0.11	0.69	0.07
VegCAMP Association <i>Hirschfeldia incana</i> 42.011.05					
TOTAL	9.26	2.36	0.11	4.10	0.41

5.0 PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (SECTION 6.1.2)

MSHCP Section 6.1.2 requires all subject properties under the jurisdiction of the MSHCP that are proposing a land use change/applying for a discretionary permit to conduct a MSHCP Section 6.1.2 assessment. This includes a habitat assessment for Riparian/Riverine Areas, Vernal Pools, three fairy shrimp species; 1) Riverside fairy shrimp (*Streptocephalus woottoni*) (RFS), 2) vernal pool fairy shrimp (*Branchinecta lynchi*) (VPFS), and 3) Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*) (SRPFS), and three bird species; 1) Least Bell’s Vireo (*Vireo bellii pusillus*) (LBVI), 2) Southwestern Willow Flycatcher (*Empidonax traillii extimus*) (SWFL), and 3) Western Distinct Population Segment (DPS)⁷ Yellow-billed Cuckoo (*Coccyzus americanus*) (YBCU). If the assessment identifies suitable habitat for any of the six-species associated with Riparian/Riverine Areas, Vernal Pools, and/or Fairy Shrimp habitat listed above, and the proposed project design does not incorporate avoidance of the identified habitat, focused surveys would be required, and

⁷ Distinct Population Segment: In addition to the listing and delisting of species and subspecies, the ESA [Endangered Species Act] allows the listing/delisting of Distinct Population Segments of vertebrate species (i.e., animals with backbones, mammals, birds, fish, reptiles, and amphibians). A Distinct Population Segment is a portion of a species' or subspecies' population or range. The Distinct Population Segment is described geographically instead of biologically, such as "all members of XYZ that occur north of 40 north latitude" (U. S. Fish and Wildlife Service - Pacific Region, 2019)



	Property		Vegetation/Land Covers
	MSHCP Criteria Cells		Agriculture
Project Footprint			California Sagebrush-California Buckwheat Scrub
	Offsite Grading Footprint		Developed
	Onsite Grading Footprint		Disturbed/Ornamental/Ruderal
	Brow Ditch & Storm Drains		Disturbed/Ruderal

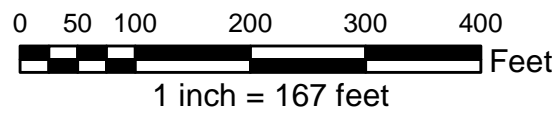


FIGURE 9
Land Covers

avoidance and minimization measures will be implemented in accordance with the MSHCP's species-specific objectives for these species.

5.1 Riparian/Riverine Areas

According to MSHCP Section 6.1.2:

Riparian/Riverine Areas are lands which contain Habitat dominated by tress [trees], shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.

5.1.1 Methods

Office Review

Prior to initiating the field assessment, SBS conducted a review and analysis of the Bachelor Mountain 7.5 Minute USGS California Quadrangle, historic aerial photography from Historic Aerials online (Historic Aerials by Netronline, 2022) and Google Earth, the U. S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), and the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey.

SBS also conducted a query of both the California Natural Diversity Database (CNDDB) and the USFWS Carlsbad Fish and Wildlife Office (CFWO) "Species Occurrence Data" GIS data to determine if the three-targeted fairy shrimp and/or three-targeted bird species listed above in Section 5.0 have been documented within five miles of the Property.

After performing the field assessment, SBS performed a Wetlands Climate Tables (WETs) analysis to determine the precipitation climatic conditions (i.e., drought, dry, normal, etc.) at the time of the assessment.

Riparian/Riverine Field Mapping Assessment

A potential Riparian/Riverine Area is walked and mapped with Collector, recording a vertex for every two feet traveled, as either a polyline and/or polygon depending on the habitat type (i.e., Riparian vs. Riverine) and the width of the feature⁸. The jurisdictional extent of a Riparian/Riverine Area is typically the dripline⁹ of the riparian vegetation associated with the water feature if present, or the top of the streambank in the absence of riparian vegetation¹⁰. Data collected while walking the potential Riparian/Riverine Area includes characteristics and functions such as hydrology, soils/substrates, dominant plant species/vegetation community, biological functions and values, presence/absence regarding the species listed in MSHCP Section 6.1.2, habitat suitability for LBVI, SWFL, YBCU, RFS, VPFS, SRPFS, and whether the feature contributes to downstream resources for MSHCP Section 6.1.2 species and/or MSHCP Conservation Areas.

⁸ Any feature \leq to three feet in width, or lacking a discernable bed and bank, is mapped as a polyline, and given a mean width. The feature is then calculated and depicted in ArcGIS by utilizing the Buffer tool to represent the mean width.

⁹ The area defined by the outermost circumference of a tree canopy where water drips from and onto the ground.

¹⁰ The jurisdictional limits of a Riparian/Riverine Area generally coincide with that of CDFW 1600 streambeds. Though if a feature lacks riparian vegetation, a Riparian/Riverine Area must contribute to downstream resources to meet the criteria, unlike CDFW 1600 streambeds where CDFW may potentially assert jurisdiction over isolated streambeds regardless of it being vegetated or unvegetated.

Field Assessment Dates and Weather Conditions

The MSHCP Section 6.1.2 assessment was conducted by biologist Tim Searl on April 18, 2022. Detailed survey information and conditions are presented in *Table 2 – MSHCP Section 6.1.2 Assessment Conditions* (Page 22).

5.1.2 Existing Conditions and Results

Watershed Location

The Property was located within the central portion of the Santa Margarita Watershed (HUC8 18070302). Nearly the entire Property was within the following sub-watersheds: northern portion of the Lower Temecula Creek Watershed (HUC10 1807030203), and northern portion of the Pechanga Creek-Temecula Creek Watershed (HUC12 180703020302). The southeastern tip of Property was within the following sub-watersheds: southern portion of the Murrieta Creek Watershed (HUC10 1807030204), and southern portion of the Santa Gertrudis Creek Watershed (HUC12 180703020406). *Figure 10 – Watershed Location* (Page 23) depicts the Property's location within each of these Hydrologic Units.

Office Review

Historic Aerial Photography Analysis

A 1967 orthorectified aerial photograph was purchased from Netronline. Google Earth aeriels were reviewed from the years 1985 to 2021 with images downloaded and georeferenced by SBS from 1996 and 2007. The overall result of the historical analysis indicates that the Property has been vacant since at least 1967, and most of the Site altered and cleared in the past for the installation of the vineyard. Below is a brief description of the Property and immediate surrounding area from 1967, 1996, and 2007.

1967

In 1967, the Property and the surrounding area was rural with no structures or paved roads visible on *Figure 11 – 1967 Aerial Photograph* (Page 24); a 1:5,000 scale image. The area consisted of open space and agriculture. The terminus of a large dry wash was present approximately 1,100-feet northwest of the Property ending in the small valley where Camino del Vino is now located.

The Property was comprised of more coastal sage scrub with only a small amount of area in the north likely utilized for dryland agriculture. A drainage was visible entering the Site in the northern-central portion and exiting in the eastern portion, similar to what exists currently; however, the two erosional features connecting to the northern side of the drainage are no longer present. The unnamed USGS-designated intermittent stream near the eastern boundary, to which the previously mentioned drainage was tributary, was clearly visible and appeared unimpeded.

1996

In 1996, little natural open space remained. Rural residential homes were common in the area and De Portola Road had become paved. The large dry wash located northwest of the Site was barely distinguishable, likely the result of upstream modifications due to increased development. Additionally, the unnamed USGS-designated intermittent stream to the east was also barely visible with that area now a residential lot with what appeared to be a planted vineyard. All the changes notwithstanding, the Property remained in a similar condition to that of 1967 apart from a few additional dirt roads/trails and the northern area no longer in agriculture. *Figure 12 – 1996 Aerial Photograph* (Page 25) depicts the Property and nearby area.

2007

In 2007, rural residential homes and the pads for those homes increased and the natural open space decreased. The large dry wash located northwest of the Site was no longer present with the active

Table 2 – MSHCP Section 6.1.2 Assessment Conditions¹¹

DATE	BIOLOGIST	SURVEY TIME (24hr)	TEMPERATURE (°F)	HUMIDITY (%)	CLOUD COVER (%)	WIND SPEED (mph)	ANNUAL PRECIPITATION TO-DATE ¹² (inches)
4/18/2022	Tim Searl	0530-1200	48-74	66-42	10-10	2-6	8.16

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¹¹ Temperature (Degrees Fahrenheit), Humidity (Relative; %), and Wind Speed (mean miles per hour) were obtained in the field with a Kestrel 3500 weather meter.

¹² Annual Precipitation (July 01 to June 30) To-Date was obtained from PWS Weather Station SE434 located near the Project in Temecula, CA (PWS Weather, 2022).

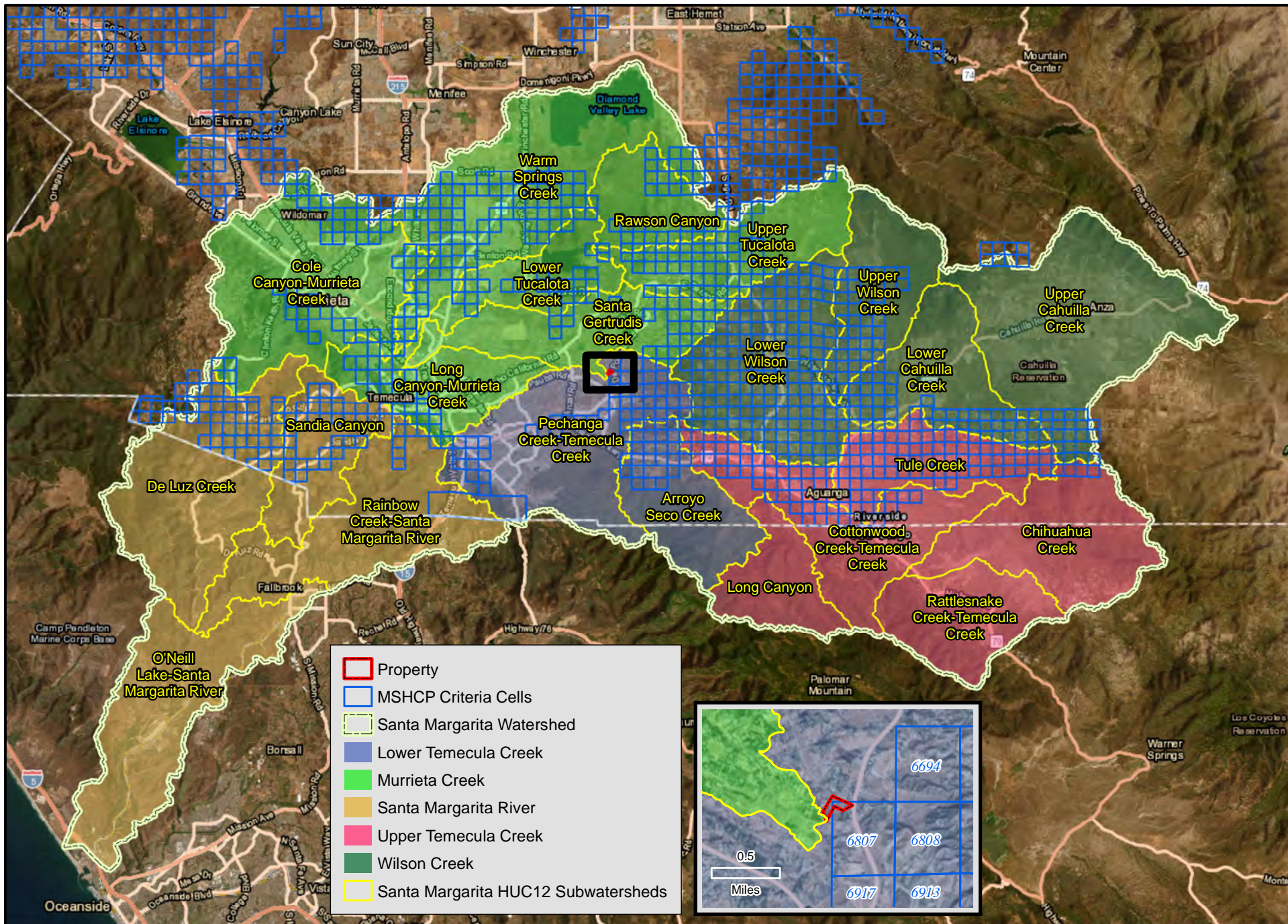
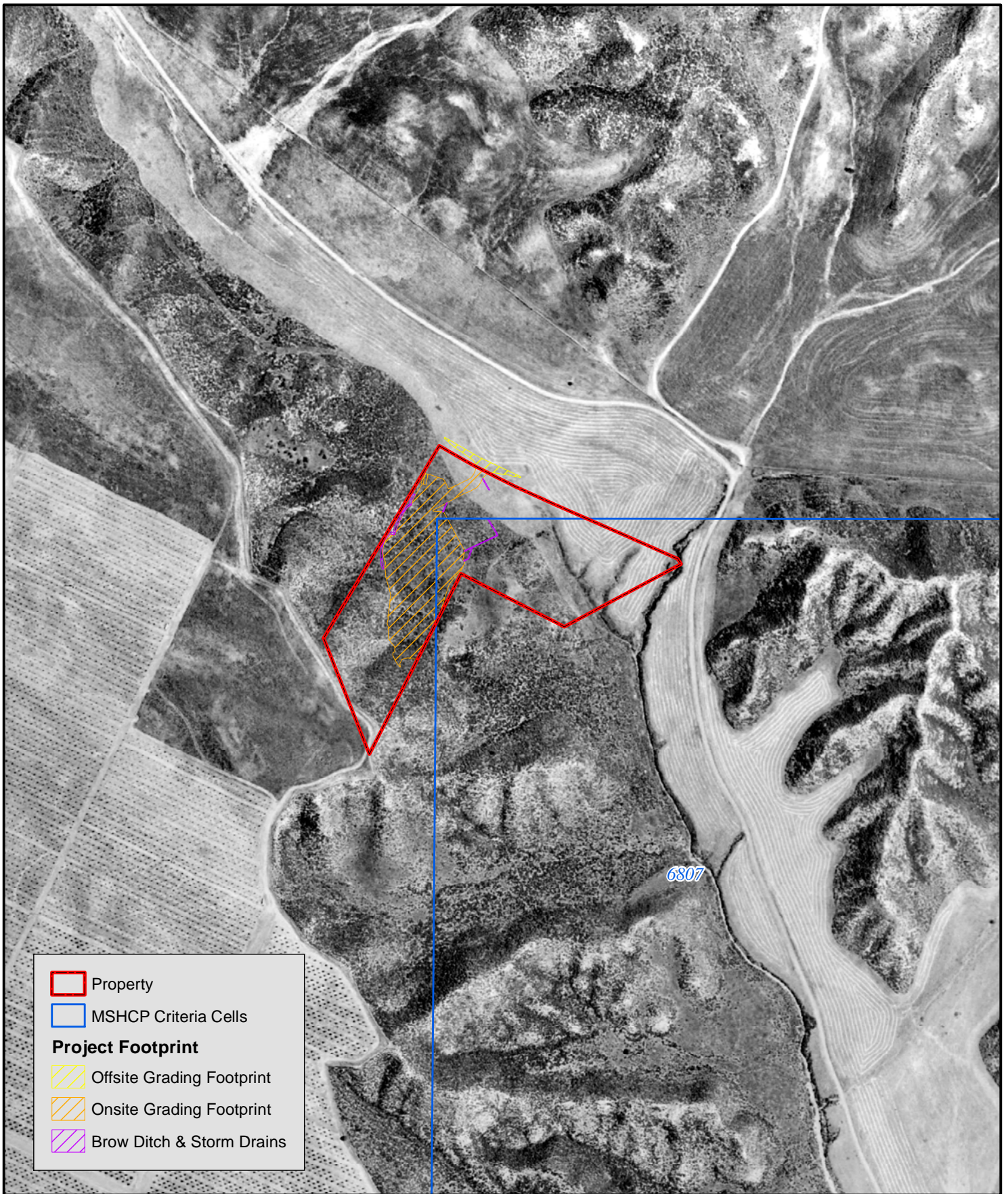







FIGURE 10
Watershed Location





	Property
	MSHCP Criteria Cells
Project Footprint	
	Offsite Grading Footprint
	Onsite Grading Footprint
	Brow Ditch & Storm Drains

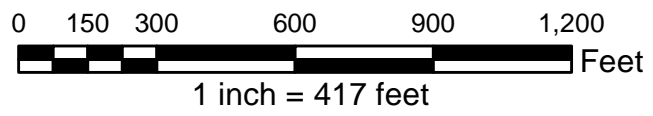
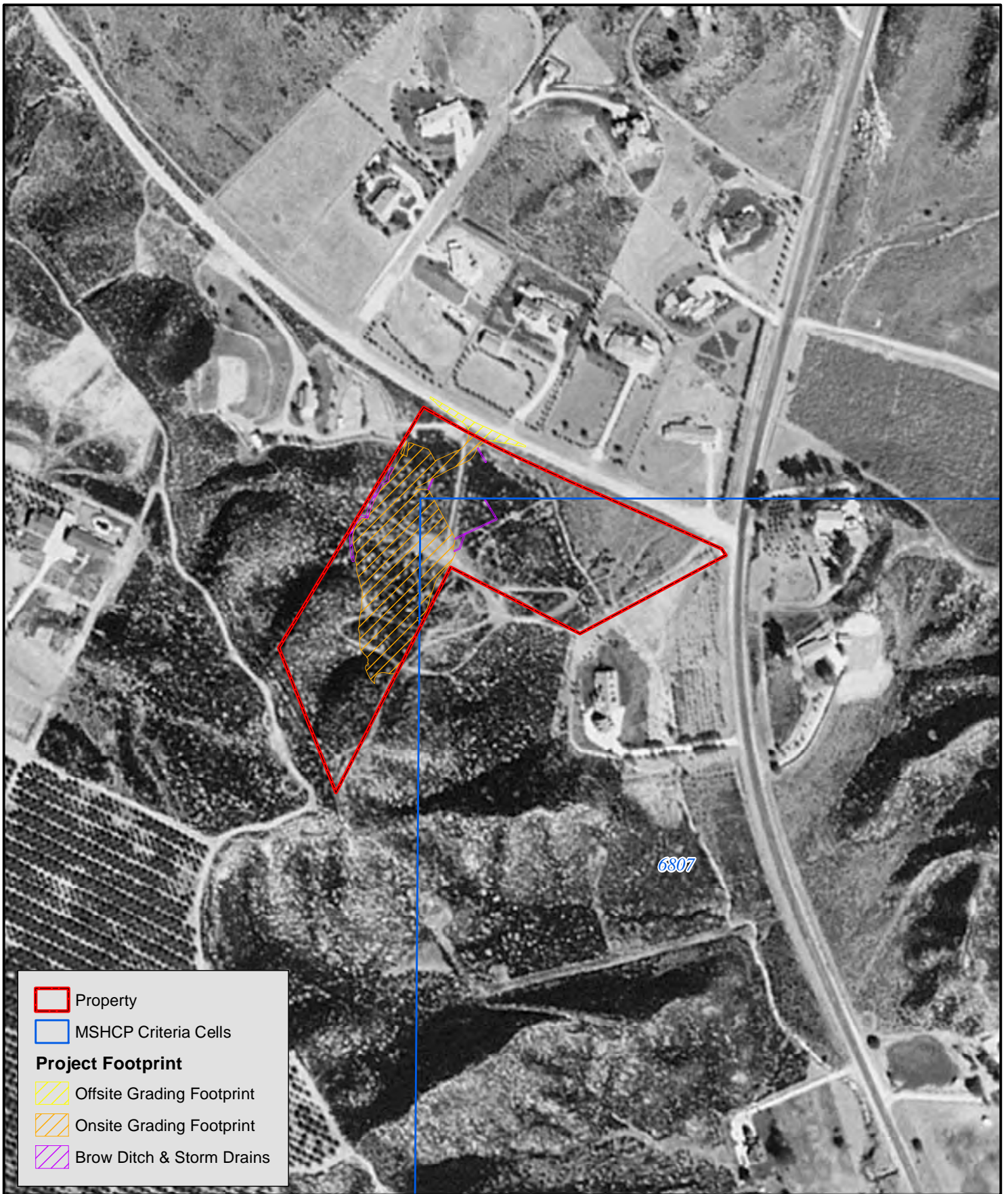







FIGURE 11
1967 Aerial
Photograph



	Property
	MSHCP Criteria Cells
Project Footprint	
	Offsite Grading Footprint
	Onsite Grading Footprint
	Brow Ditch & Storm Drains

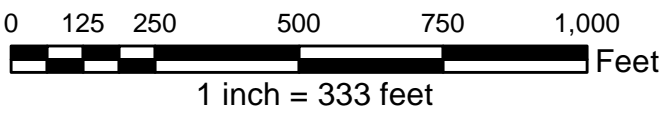


FIGURE 12
1996 Aerial
Photograph

construction of Calle Catalunya. The unnamed USGS-designated intermittent stream to the east was also altered further with the construction of an additional home, tennis court, and associated paved driveway on the lot. By 2007, the Property was converted to its current configuration. The vineyard had been installed. Additionally, nearly all the native coastal sage scrub was cleared in the southern portion to allow for the installation of four concrete brow ditches to intercept runoff and prevent erosion on the north-facing slope. *Figure 13 – 2007 Aerial Photograph* (Page 27) depicts the Property and nearby area.

NWI

According to the NWI, which utilized a 1:130,000 aerial photograph from 1974 as its base, two potential “Riverine” areas were on the Property. These Riverine areas follow the alignment of the drainage areas previously discussed in the *Historic Aerial Photography Analysis* section above. *Figure 14 – NWI* (Page 28) depicts the NWI data. The *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee (FGDC), 2013) defines “Riverine” as:

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

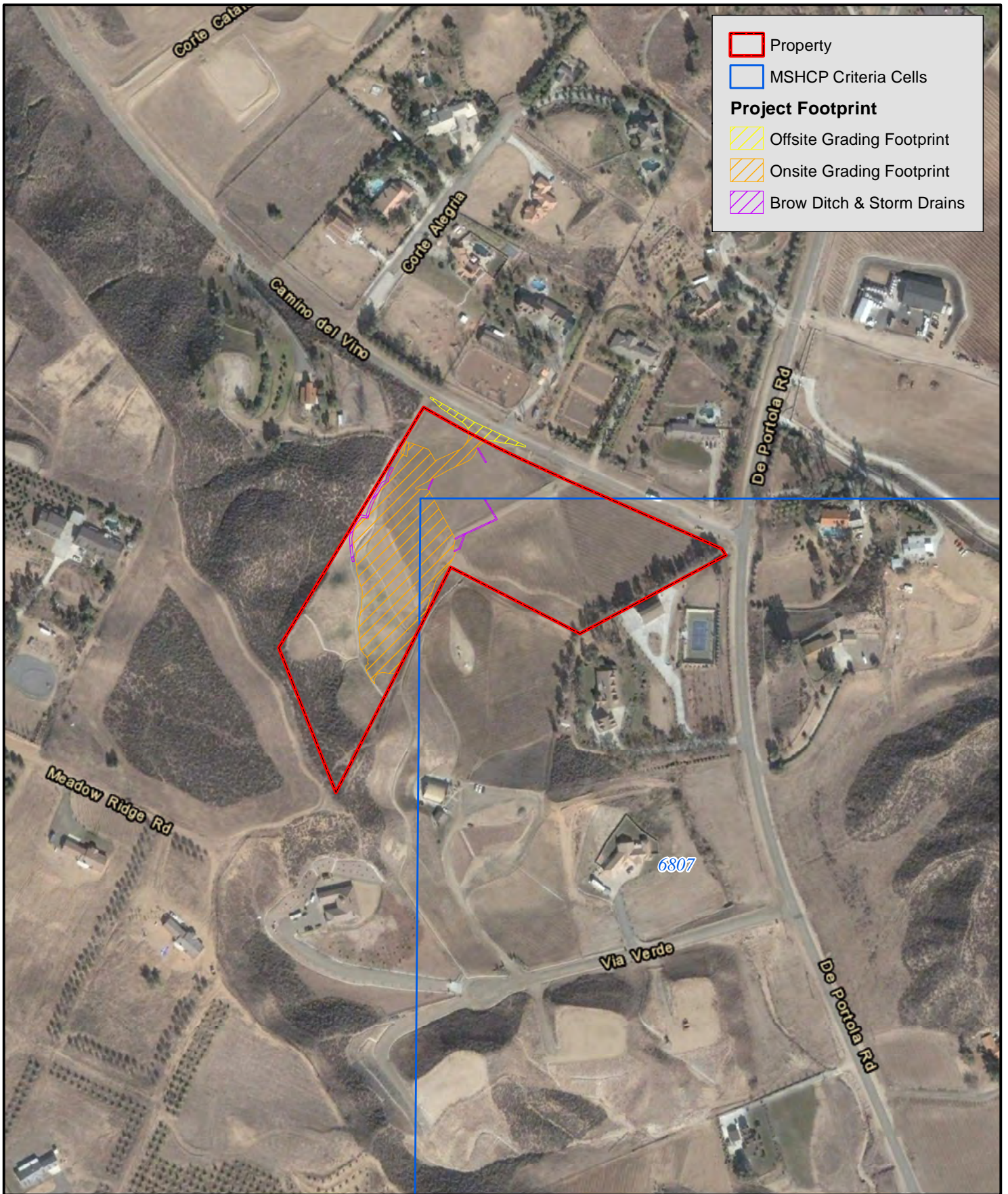
Query Results

Though no suitable habitat was present on the Property, LBVI, SWFL, RFS, and VPFS have been documented within five miles. A total of 62 records (CFWO: 40 LBVI, 2 SWFL, 6 RFS, 1 VPFS; CNDDDB: 5 LBVI, 7 RFS, 1 VPFS) between 1988 and 2020 were reported. The nearest documented record was LBVI from the CFWO in 2020 approximately 1.7-miles southeast of the Property. *Figure 15 – MSHCP Section 6.1.2 Targeted Species Query Results* (Page 29) depicts the query results.

Natural Resources Conservation Service Soils

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (United States Department of Agriculture Natural Resources Conservation Service, 2022), The Property/Project consisted of five soils as depicted by *Figure 16 – NRCS Soils* (Page 30). A brief description, as described by the NRCS, is presented below. Acreages for the Property, Project, and those respective areas within Cell Group C are provided in *Table 3 – NRCS Soils (Acres)* (Page 31). No hydric, clay, or saline-alkali soils series were present.

- **Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2):** A well-drained alluvium soil derived from granite. The depth to the restrictive feature and water table was typically more than 80-inches. The frequency of ponding was none, and GyC2 was not rated as hydric.
- **Greenfield sandy loam, 8 to 15 percent slopes, eroded (GyD2):** GyD2 was identical to GyC2. A well-drained alluvium soil derived from granite. The depth to the restrictive feature and water table was typically more than 80-inches. The frequency of ponding was none, and GyD2 was not rated as hydric.
- **Hanford coarse sandy loam, 8 to 15 percent slopes, eroded (HcD2):** A well-drained alluvium soil derived from granite. The depth to the restrictive feature and water table was typically more than 80-inches. The frequency of ponding was none, and HcD2 was not rated as hydric.
- **Hanford sandy loam, 2 to 15 percent slopes (HfD):** HfD was identical to HcD2. A well-drained alluvium soil derived from granite. The depth to the restrictive feature and water table



Property
 MSHCP Criteria Cells
Project Footprint
 Offsite Grading Footprint
 Onsite Grading Footprint
 Brow Ditch & Storm Drains

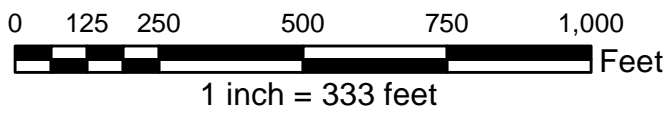


FIGURE 13
2007 Aerial
Photograph

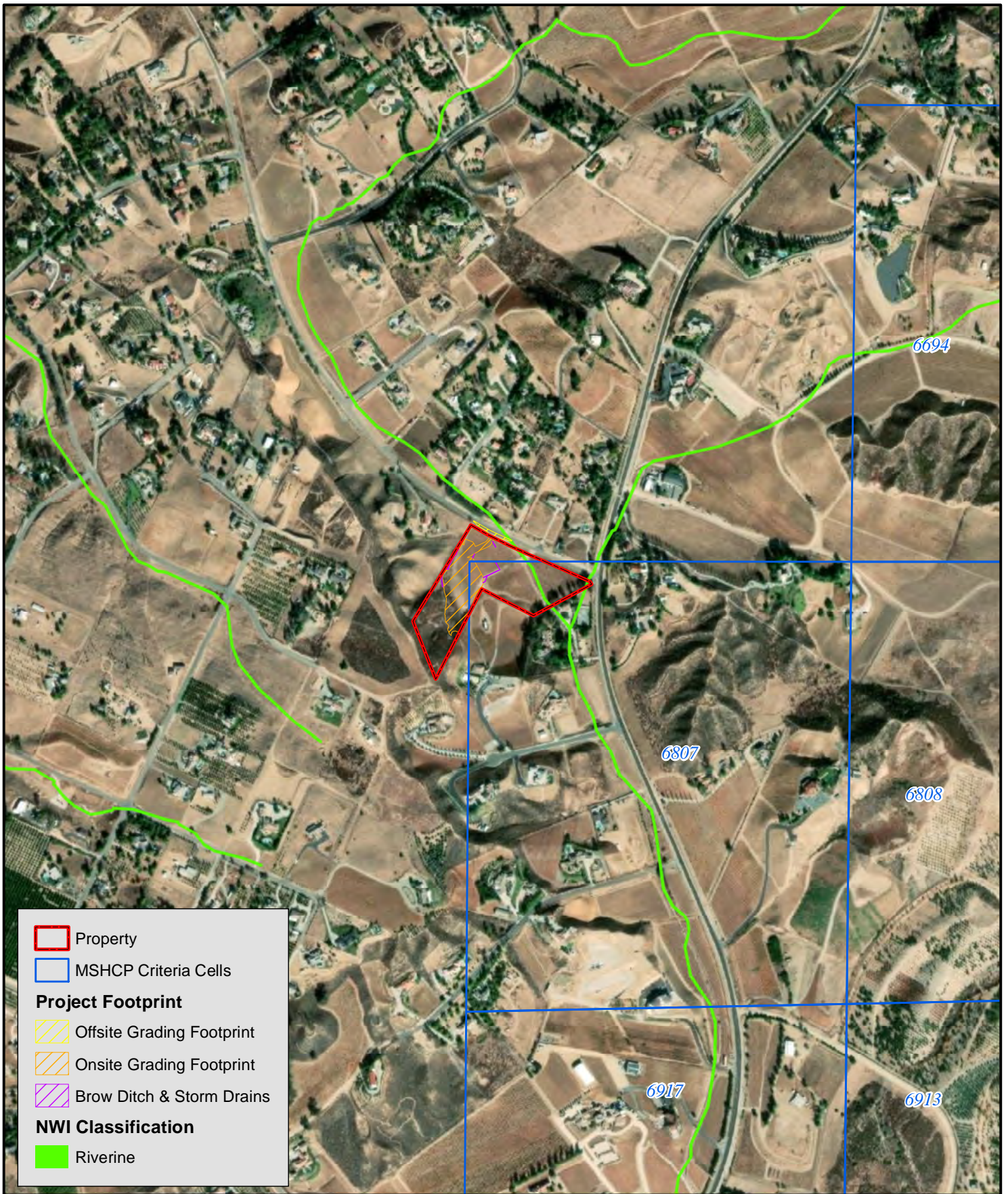
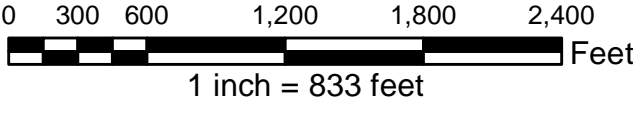
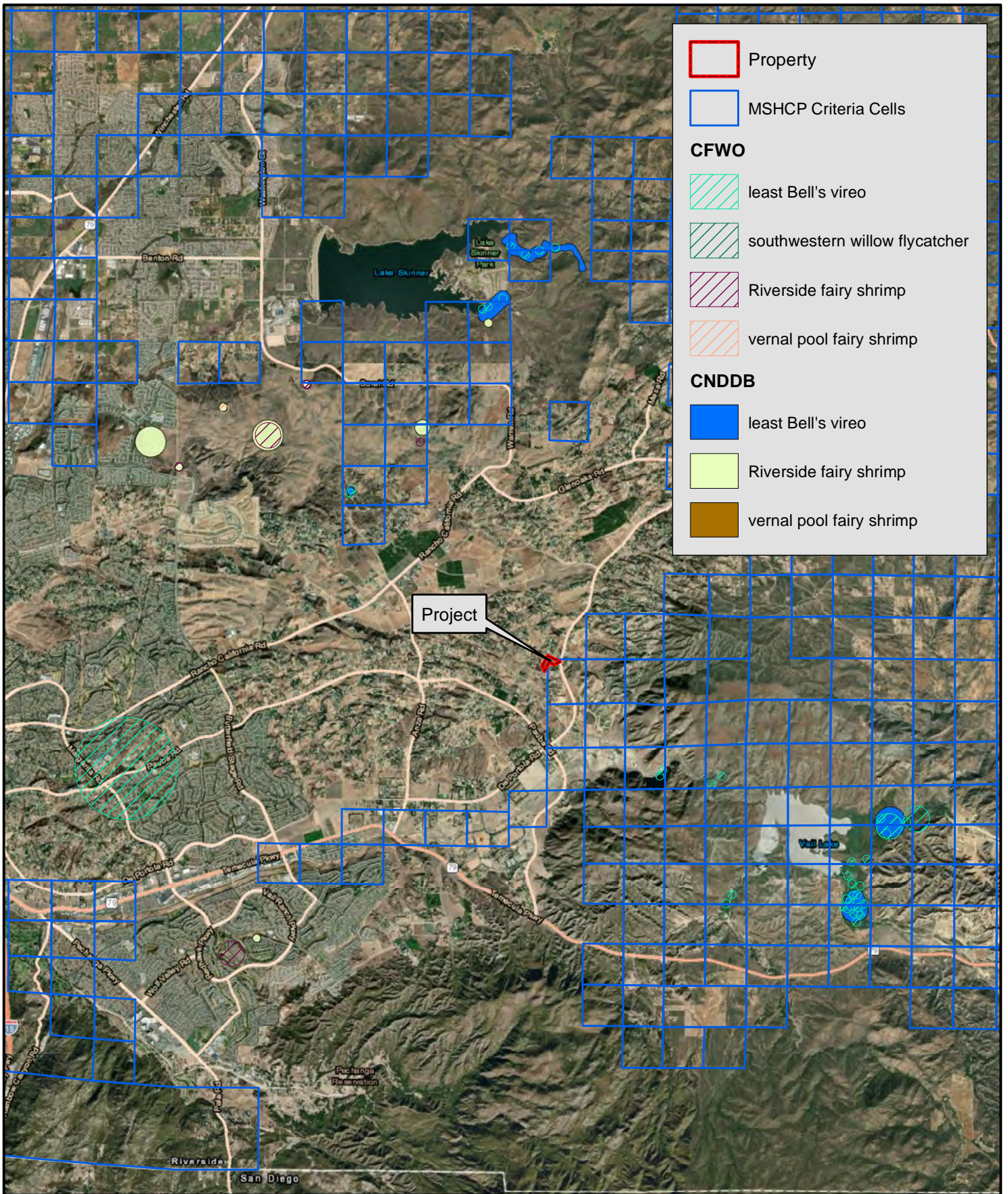


FIGURE 14
NWI





	Property
	MSHCP Criteria Cells
CFWO	
	least Bell's vireo
	southwestern willow flycatcher
	Riverside fairy shrimp
	vernal pool fairy shrimp
CNDDB	
	least Bell's vireo
	Riverside fairy shrimp
	vernal pool fairy shrimp

Project

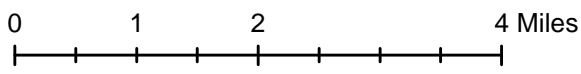


FIGURE 15
MSHCP Section 6.1.2
Targeted Species
Query Results

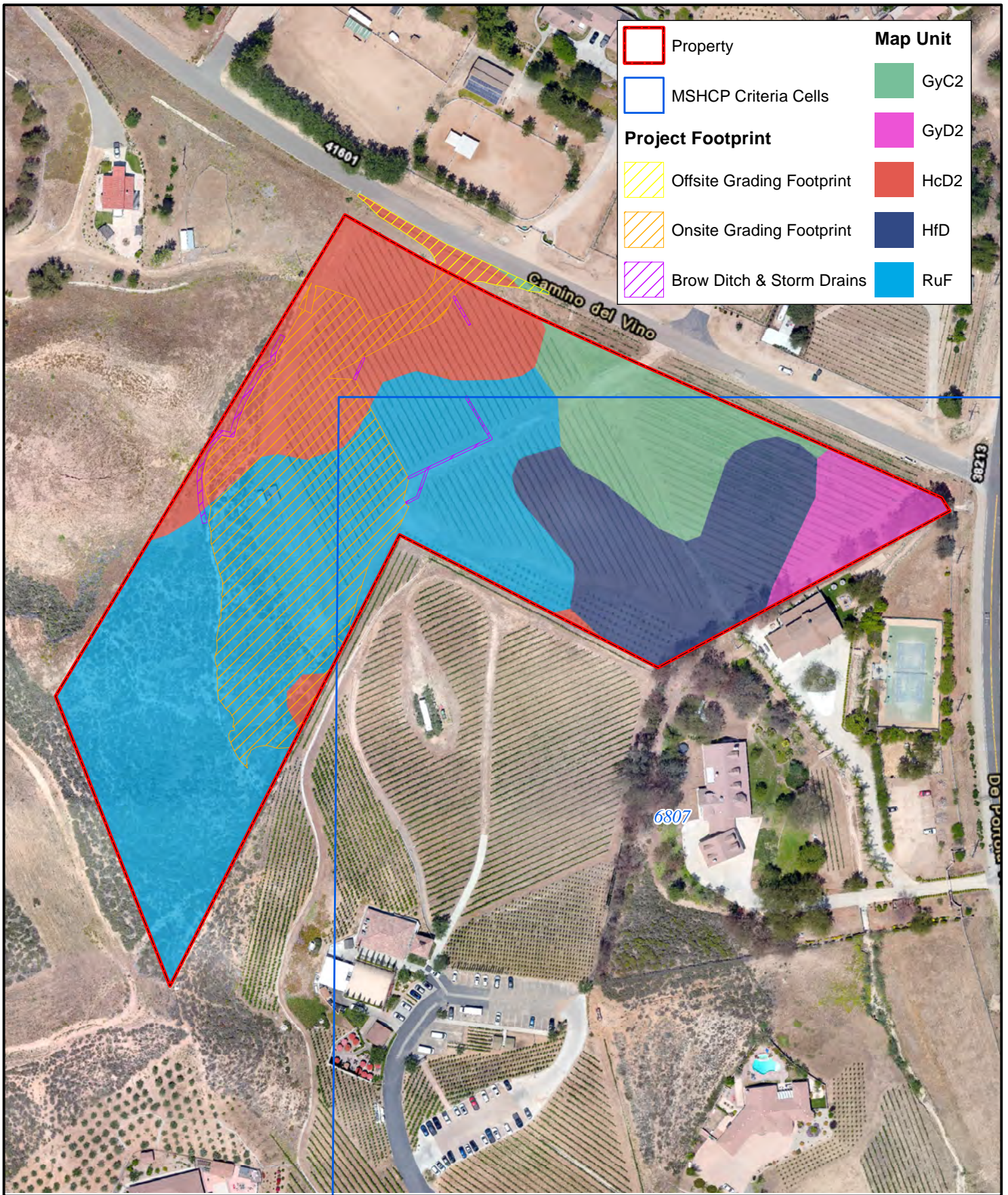
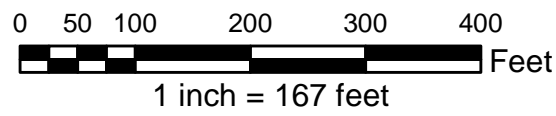


FIGURE 16
NRCS Soils



was typically more than 80-inches. The frequency of ponding was none, and HfD was not rated as hydric.

- **Rough broken land (RuF):** RuF was a residuum soil derived from mixed sources. The depth to paralithic bedrock is typically only 0 to 3 inches. RuF was not rated as a hydric soil.

Table 3 – NRCS Soils (Acres)

SOIL MAP UNIT	PROPERTY	PROJECT		CELL GROUP C	
		Onsite	Offsite	Property	Project ¹³
GyC2	1.0	0	0.01	0.74	0
GyD2	0.46	0	0	0.47	0
HcD2	1.70	0.85	0.10	0.05	0.04
HfD	1.43	0	0	1.43	0
RuF	4.67	1.51	0	1.41	0.37
TOTAL	9.26	2.36	0.11	4.10	0.41

Riparian/Riverine Areas Results

Tim Searl identified and assessed two potential MSHCP Riverine features on the Property and near the Project. The two features, designated as Feature A and B, were ephemeral, human-altered drainages. A portion of Feature A was assessed and mapped offsite due to its proximity to the Project; however, it was not located within the Project area. *Table 4 – Potential Riverine Areas (Acres)* (below) provides the acreage for each feature, and *Table 5 – Potential Riverine Areas (Square Feet)* (below) provides the square footage for each feature. *Figure 17 – MSHCP Section 6.1.2 Assessment Results* (Page 32) depicts the location and extent of the potential Riverine Areas and the culverts within and entering Feature A. The area calculations in the tables below only include the two culvert areas that were within the flowline of Feature A (i.e., the culvert upstream beneath Camino del Vino and the culvert beneath the existing dirt access road). The other three mapped culverts collected and diverted runoff but were not connected to MSHCP Riverine Areas. Appendix E depicts photographic key maps and a collection of assessment photographs.

An analysis of the WETs, with the results provided in Appendix F, indicated that the Property was experiencing extreme drought conditions during the field assessment and the area was “drier than normal.”

Table 4 – Potential Riverine Areas (Acres)

FEATURE ID	ASSESSED AREA		PROJECT		CELL GROUP C	
	Total	Property	Onsite	Offsite	Property	Project ¹⁴
A	0.22	0.19	0	0	0.12	0
B	0.005	0.005	0	0	0.005	0
TOTAL	0.23	0.20	0	0	0.13	0

Table 5 – Potential Riverine Areas (Square Feet)

FEATURE ID	ASSESSED AREA		PROJECT		CELL GROUP C	
	Total	Property	Onsite	Offsite	Property	Project ¹⁵
A	9,583.20	8,276.40	0	0	5,227.20	0
B	217.80	217.80	0	0	217.80	0
TOTAL	9,801.00	8,494.20	0	0	5,445.00	0

¹³ Offsite Project Area was not in Cell Group C.

¹⁴ Offsite Project Area was not in Cell Group C.

¹⁵ Offsite Project Area was not in Cell Group C.

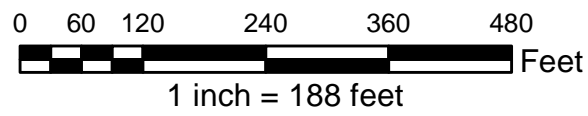
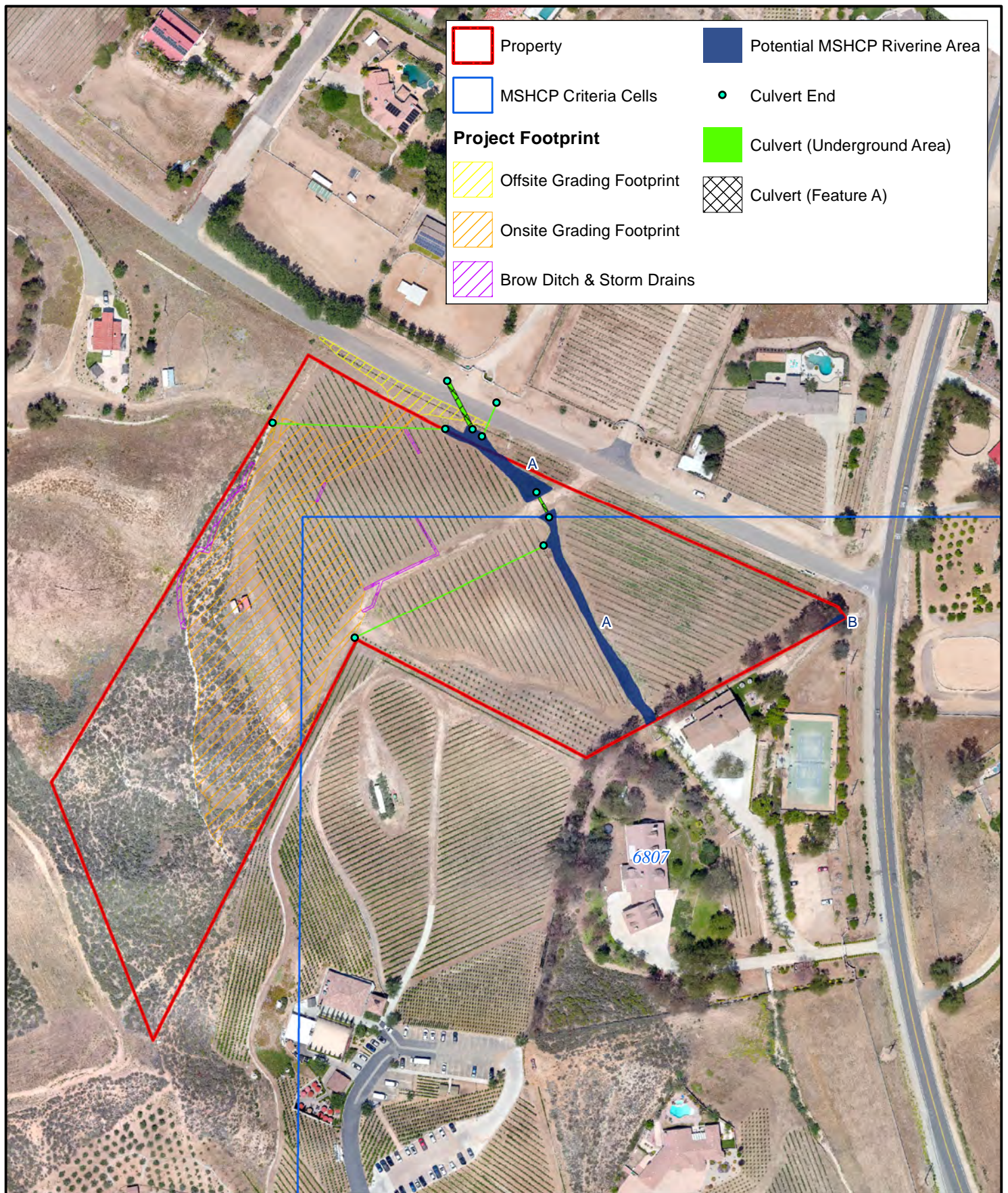


FIGURE 17
MSHCP Section 6.1.2
Assessment Results

Feature A

This feature was an unnamed USGS-designated intermittent stream that entered the Site in the northern portion then flowed in a southeasterly direction. Feature A was historically the result of a large dry wash that entered the small valley where Camino del Vino is now situated approximately 1,100-feet northwest of the Property. That feature is no longer present due to development, and Feature A now receives flows from the developed rural residential area to the north/northwest. Upstream, it was no longer a connected feature. Feature A was ephemeral and more of a flat, wash feature that lacked a clearly defined bed and bank. Bare ground and ruderal non-native annual grasses and forbs were dominant throughout. No riparian vegetation such as mule fat (*Baccharis salicifolia* subsp. *salicifolia*) or willow (*Salix* spp.) were present. Soils throughout primarily consisted of sandy loams. Feature A was tributary to Feature B offsite to the southeast. Feature A may be subject to MSHCP Section 6.1.2 Riparian/Riverine Areas policies.

Feature B

This feature was an unnamed USGS-designated intermittent stream with only a small portion of the bed of the drainage overlapping the Site in the northeastern corner. Feature B was ephemeral and more of a flat, wash feature that lacked a clearly defined bed and bank. The outer limits of the drainage were defined by rocks that had been intentionally placed by humans, similar to open rip/rap. Bare ground was dominant with some scattered ruderal non-native annual grasses and forbs present. The wash was also in the understory of planted gum trees. No riparian vegetation such as mule fat or willow were present. Soils throughout primarily consisted of sandy loams. Feature B continued for approximately 0.75-mile where the feature eventually exited onto De Portola Road. The feature did not connect or contribute to downstream resources; therefore, Features A and B may or may not be subject to MSHCP Section 6.1.2 Riparian/Riverine Areas policies.

Assessed Areas Not Meeting Criteria of Riparian/Riverine

The brow ditches, storm drains, and connected culverts were assessed for MSHCP Section 6.1.2 Riparian/Riverine Area characteristics, and those areas were determined to not meet the criteria. The brow ditches were installed in 2006/2007 within upland habitat on the steep slope to intercept and convey storm runoff to prevent erosion and protect the vineyard. The one culvert north of Camino del Vino was in a low collection area where sheetflow from north to south appeared to drain. None of these features were connected to, or the result of altering natural stream courses, and therefore did not meet the criteria of a MSHCP Section 6.1.2 resource.

5.1.3 Impacts

The Applicant designed the proposed Project to avoid impacts to potentially jurisdictional/MSHCP Section 6.1.2 Riparian/Riverine Areas. *Figure 18 – MSHCP Section 6.1.2 Assessment Results – Project Detail* (Page 34) depicts the Project avoidance. The existing culverts will remain in place as-is.

Indirect Effects

The Project is not expected to produce disturbances that result in indirect effects on Riparian/Riverine Areas both during construction and post-construction. The small extent of Feature A, and the fact that it was a human-altered dry wash that does not support habitat for MSHCP Covered Species, indicates that the nearby ingress/egress driveway will not create an impact on the feature. Best Management Practices (BMPs) described in Section 10.0 of this Analysis will be implemented during construction.

5.1.4 Mitigation

No Riparian/Riverine Area mitigation is required. The Project is consistent with the Riparian/Riverine Areas section of MSHCP Section 6.1.2. If the County as the Permittee of the MSHCP determines that Features A and B do meet the criteria of a MSHCP Section 6.1.2 Riverine Area, the Project will place a “no

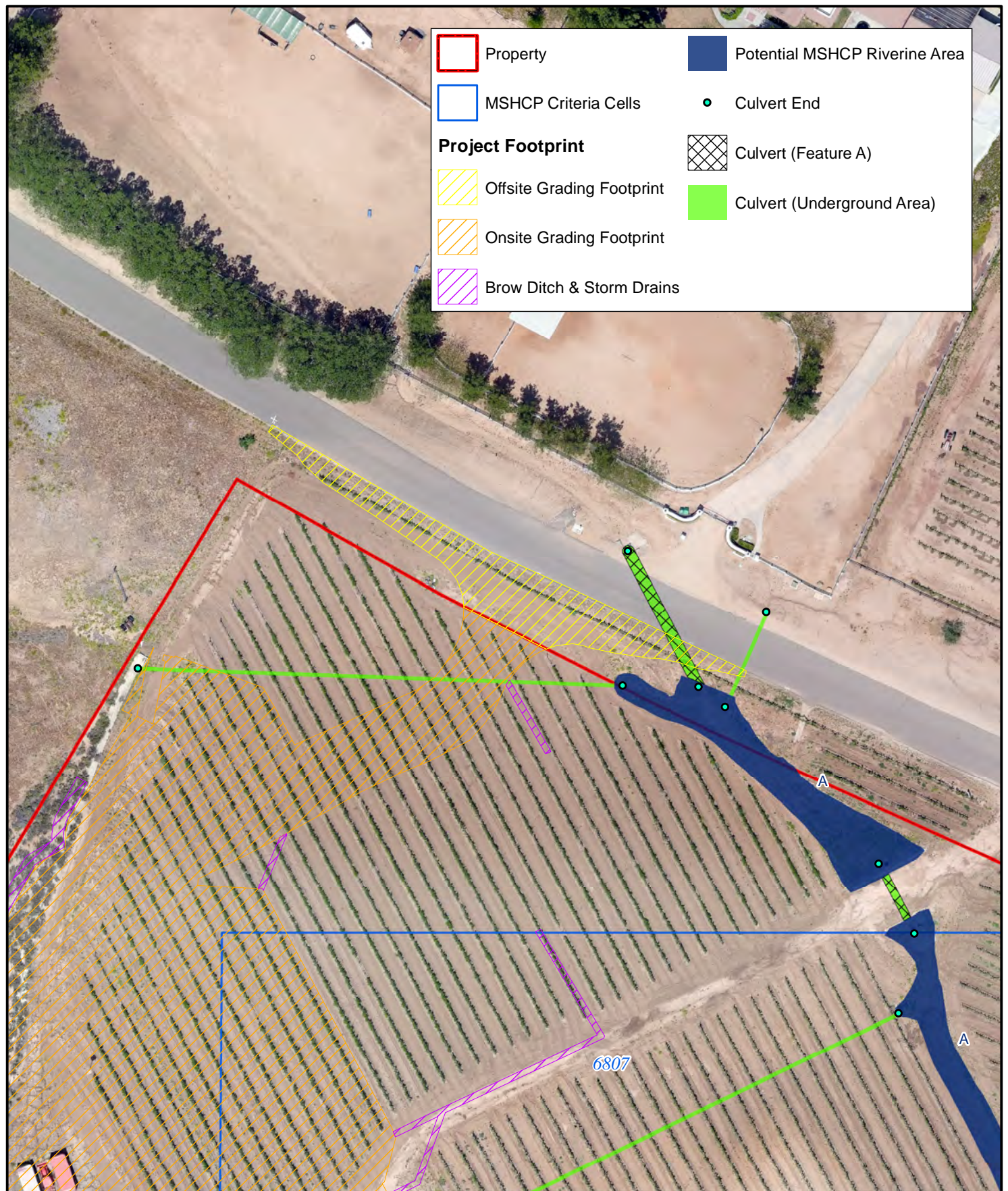


FIGURE 18
MSHCP Section 6.1.2
Assessment Results -
Project Detail



impact/avoidance area” deed restriction over the mapped area. The deed restriction will demonstrate that the areas will be avoided, and no impacts will occur from the Project, including fuel modification within the bed and bank. The deed restriction will be finalized as a condition of Project approval by the County.

5.2 Vernal Pools

According to MSHCP Section 6.1.2:

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

5.2.1 Methods

The perimeter of a potential Vernal Pool is walked and mapped by creating a polygon utilizing Collector. Data collected while walking each potential Vernal Pool feature includes plant species composition, presence/absence of standing water, evidence of potential ponding (i.e., cracked mud), functions and values, presence/absence regarding the species listed in MSHCP Section 6.1.2, and habitat suitability for RFS, VPFS, SRPFS.

5.2.2 Existing Conditions and Results

No evidence of Vernal Pools was recorded on the Site or offsite Project area. Vernal Pools are depressions in areas where a hard-underground layer prevents rainwater from draining downward into the subsoils. When rain fills the pools in the winter and spring, the water collects and remains in the depressions. In the springtime, the water gradually evaporates away, until the pools become completely dry in the summer and fall. Vernal Pools tend to have an impermeable layer that results in ponded water. The soil texture (i.e., the amount of sand, silt, and clay particles) typically contains higher amounts of fine silts and clays with lower percolation rates. Pools that retain water for a sufficient length of time will develop hydric cells. Hydric cells form when the soil is saturated from flooding for extended periods of time and anaerobic conditions (i.e., lacking oxygen or air) develop. None of these conditions (i.e., no depressions, hydric soils, etc.) were observed on the Site and all soils are mapped as sandy/loams that do not retain water.

5.2.3 Impacts

No Vernal Pool impacts will occur due to the lack of Vernal Pools on the Project.

5.2.4 Mitigation

No Vernal Pool mitigation is required. The Project is consistent with the Vernal Pool section of MSHCP Section 6.1.2.

5.3 Fairy Shrimp

According to Section 6.1.2 of the MSHCP:

Fairy Shrimp For Riverside, vernal pool and Santa Rosa fairy shrimp, mapping of stock ponds, ephemeral pools and other features shall also be undertaken as determined appropriate by a qualified biologist.

5.3.1 Methods

The perimeter of a potential Fairy Shrimp Habitat feature is walked and mapped by creating a polygon utilizing Collector. Data collected while walking each potential Fairy Shrimp feature includes plant species composition, presence/absence of standing water, evidence of potential ponding (i.e., cracked mud), functions and values, presence/absence regarding the species listed in MSHCP Section 6.1.2, and habitat suitability for RFS, VPFS, SRPFS.

5.3.2 Existing Conditions and Results

No suitable habitat for fairy shrimp was detected on the Property and offsite Project area. Like the vernal pool assessment, no features were detected that would support Fairy Shrimp. No standing water or other sign of areas that pond water (i.e., mud cracks, tire ruts) were recorded.

5.3.3 Impacts

No Fairy Shrimp impacts will occur due to the lack of Fairy Shrimp habitat on the Project.

5.3.4 Mitigation

No Fairy Shrimp mitigation is required. The Project is consistent with the Fairy Shrimp section of MSHCP Section 6.1.2.

5.4 Riparian Birds

5.4.1 Methods

Potentially suitable habitat for LBVI, SWFL, and/or YBCU are mapped in the field utilizing Collector. Habitat assessments are conducted by SWFL and YBCU permitted biologist Tim Searl (Permit Number: TE02351A-1).

A polygon is created in the field utilizing Collector while walking the perimeter of potentially suitable habitat for riparian birds. Data collected while assessing the potential habitat includes characteristics such as vegetation community, dominant plant species present, plant densities, and presence or absence of surface water.

5.4.2 Existing Conditions and Results

No suitable habitat for LBVI, SWFL, or YBCU was present on the Property or offsite Project area.

5.4.3 Impacts

No impacts will occur to Riparian Birds due to the lack of Riparian Bird habitat on or near the Project.

5.4.4 Mitigation

No Riparian Bird mitigation is required. The Project is consistent with MSHCP Section 6.1.2.

6.0 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3)

6.1 MSHCP Background and Objectives

The MSHCP specifically covers 63 rare plant species through the implementation of the species-specific objectives outlined by the MSHCP. The NEPS are those species that information regarding the distribution and presence throughout western Riverside County was considered insufficient to ensure their long-term

conservation. Therefore, the MSHCP established 10 NEPS “survey areas” based on historic records, soils, and habitats where these 14-plant species could potentially occur. All public and private projects located within any of these survey areas must, in the least, conduct a habitat assessment. If suitable habitat is determined to be present, then focused surveys must be performed.

According to the MSHCP:

For Narrow Endemic Plant Species populations identified as part of the survey process described above, impacts to 90% of those portions of the Project that provide for long-term conservation value of the identified Narrow Endemic Plant Species shall be avoided until it is demonstrated that conservation goals for the particular species are met. Avoidance shall not be considered to be Conservation contributing to Reserve Assembly unless the avoided populations are acquired and managed as Additional Reserve Lands. Individual species conservation goals are presented in Section 9.0 of this document. Findings of equivalency shall be made as outlined below to demonstrate that the 90% standard has been met.

If it is determined that the 90% threshold cannot be met and achievement of overall MSHCP conservation goals for the particular species have not yet been demonstrated, the Permittee(s) must make a Determination of Biologically Equivalent or Superior Preservation...”

6.1.1 NEPS Assessment Area No. 5

The northeastern corner of the Property (0.03-acre [1,230.73-sqft]) was in NEPS Assessment Area No. 5 as depicted by *Figure 19 – NEPS Assessment Area* (Page 39) which targets two NEPS. A brief description of each species, based on information detailed in the MSHCP, CNPS, and the Jepson Online Interchange is provided in *Table 6 – NEPS Assessment Area No. 5* (below).

Table 6 – NEPS Assessment Area No. 5

SPECIES/REGULATORY STATUS	SOILS	HABITAT	BLOOMING PERIOD	ECOLOGICAL NOTES
many-stemmed dudleya (<i>Dudleya multicaulis</i>) CRPR 1B.2 No federal or state listing status	Clay soils	Ridgelines, rocky places, and open areas within chaparral, coastal sage scrub, and grasslands.	March through June	Perennial produced from a corm that may not be detectable from year to year.

SPECIES/REGULATORY STATUS	SOILS	HABITAT	BLOOMING PERIOD	ECOLOGICAL NOTES
<p>slender-horned spine flower (<i>Dodecahema leptoceras</i>)</p> <p>CRPR 1B.1</p> <p>Listed as Endangered by both the federal Endangered Species Act and California Endangered Species Act</p>	<p>Sandy or gravelly soils, frequently with cryptogamic crusts.</p>	<p>Found in sandy soil in association with mature alluvial scrub. Also associated with gravel soils of Temecula arkose deposits in association with open chamise chaparral. The ideal habitat appears to be a terrace or bench that receives over bank deposits every 50 to 100 years.</p>	<p>April through June</p>	<p>This species is generally dependent on mature alluvial scrub that is maintained by periodic flooding and sediment transport. Individuals are small, and thus may be difficult to locate.</p>

6.1.2 MSHCP Objectives

The MSHCP objectives for each of the targeted NEPS in Table 6 above are presented below.

Many-Stemmed Dudleya

Objective 1

Include within the MSHCP Conservation Area at least 142,680 acres of suitable habitat (chaparral, coastal sage scrub and grassland below 700 m in the Riverside Lowlands and Santa Ana Mountain Bioregions) in the Plan Area, including 1,575 acres of clay soils: 190 acres of Altamont, 210 acres of Auld, 490 acres of Bosanko, 100 acres of Claypit soils and 585 acres of Porterville soils.

Objective 2

Include within the MSHCP Conservation Area at least 26 of the known occurrences of many-stemmed dudleya, including the occurrences at Estelle Mountain, Temescal Canyon, the Santa Ana Mountains, Gavilan Hills, Alberhill Creek, and Prado Basin.








Objective 3

Surveys for many-stemmed dudleya will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). many-stemmed dudleya located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3, MSHCP, Volume I.

Slender-Horned Spine Flower

Objective 1

Include within the MSHCP Conservation Area at least 8,350 acres of suitable habitat (chaparral and Riversidean alluvial fan sage scrub between 200 and 700 m in the Vail Lake Narrow Endemic Plant Species survey area and Agua Tibia Mountains Bioregion).

	Property		NEPS Assessment Area (Onsite)
	MSHCP Criteria Cells		NEPS Assessment Area
Project Footprint			
	Offsite Grading Footprint		
	Onsite Grading Footprint		
	Brow Ditch & Storm Drains		

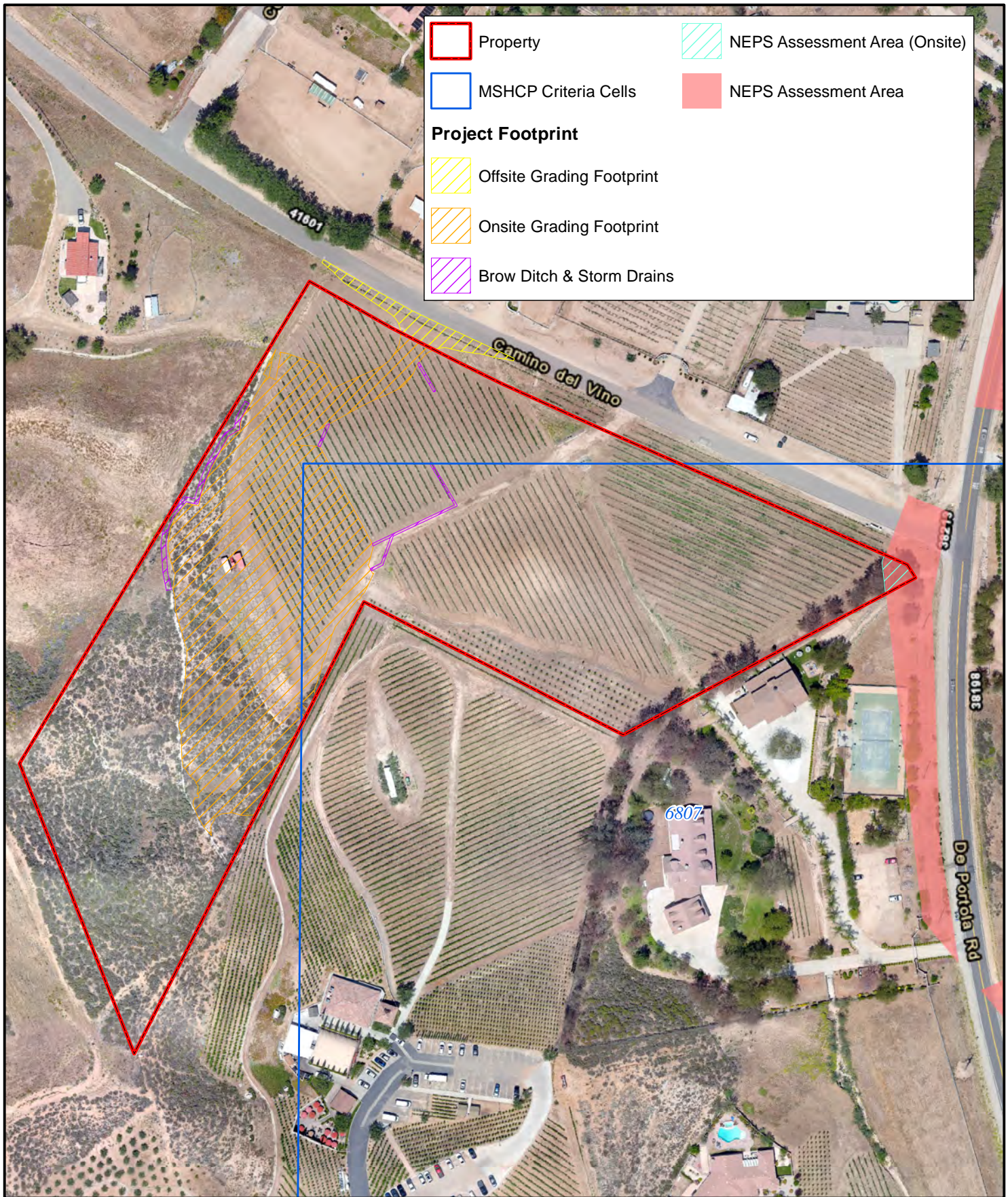
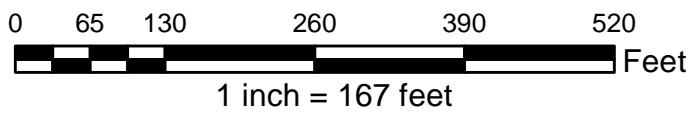


FIGURE 19
NEPS Assessment Area



DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: Geovironment (2022 Drone Aerial), ESRI World Transportation, RBH,
 Riverside County GIS Data

PROJECT:
Haven Winery

Objective 2

Include within the MSHCP Conservation Area at least 11 of the known locations of this species, including Temescal Canyon, Bautista Canyon, upper San Jacinto River, Agua Tibia Wilderness Area, Alberhill, Alberhill Creek east of Lake Elsinore, Railroad Canyon, Vail Lake, Kolb Creek, and east of State Street south of Hemet.

Objective 3

Surveys for slender-horned spine flower will be conducted as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the MSHCP, Volume I). Slender-horned spine flower located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.1.3, MSHCP, Volume I.

Objective 4

Include within the MSHCP Conservation Area the floodplain along Arroyo Seco and Kolb Creeks, Temescal Wash at Indian Creek, central Bautista Creek and the San Jacinto River upstream from Valle Vista. Alluvial processes will be maintained in order to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change.

6.2 Methods

6.2.1 California Native Plant Society

The California Native Plant Society (CNPS) is a statewide non-profit organization whose mission is to "...conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants" (California Native Plant Society, 2022). The CNPS has created a "California Rare Plant Ranking System" (CRPR) to categorize degrees of endangerment and/or concern (California Native Plant Society, 2022). Additionally, the CNPS has created a "Threat Rank" which "...is an extension added onto the CRPR and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered (California Native Plant Society, 2022). The "California Rare Plant Ranking System" and "Threat Ranks" are presented in *Table 7 - CRPR Classifications* (below).

Table 7 – CRPR Classifications

CRPR
1A - Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B - Plants Rare, Threatened, or Endangered in California and Elsewhere
2A - Plants Presumed Extirpated in California, But More Common Elsewhere
2B - Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 - Plants About Which More Information is Needed - A Review List
4 - Plants of Limited Distribution - A Watch List
THREAT RANK
0.1-Seriously threatened in California (high degree/immediacy of threat)
0.2-Fairly threatened in California (moderate degree/immediacy of threat)
0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

6.2.2 Survey Methods and Protocol

Rare plant assessments are conducted in accordance with the CDFW’s *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (California

Department of Fish and Wildlife, 2018) (Rare Plant Protocol), while maintaining consistency with the MSHCP.

According to the MSHCP, habitat assessments, in general, can be conducted year-round except for those species associated with vernal pools. Habitat assessments for those species must be conducted during the rainy season. Additionally, plant species with known reliance on rainfall and hydrology affinities, completion of a habitat suitability assessment and/or focused survey with negative results shall only be sufficient to satisfy survey requirements for those species during years with at least normal rainfall. Generally, habitat assessments are conducted year-round using the methods described below, particularly in times of severe drought.

Prior to conducting a field habitat assessment, historic and recent aerial photography is reviewed. A soil analysis is also conducted utilizing ArcGIS and shapefiles created and provided by the USDA's NRCS Web Soil Survey. The research data is utilized to generate a "potential species" list based on the results of the queries. A field habitat assessment is then conducted.

Focused rare plant surveys are conducted following the Rare Plant Protocol. The protocol provides methods to facilitate a consistent and systematic approach so that reliable information is produced and the potential of detecting a special-status plant or natural community is maximized (California Department of Fish and Wildlife, 2018).

Focused rare plant surveys are typically conducted to coincide with species' blooming period. This is generally required to accurately identify potential special-status plant species. In Southern California, generally the optimal time to conduct focused surveys for rare plants is spring and early summer depending on rainfall and other weather conditions.

Reference sites are those sites where targeted rare plants have been documented to occur. These sites are visited prior to conducting a focused survey to determine if the targeted plant species is viable and identifiable. The CNDDDB, CFWO and CNPS were queried to locate suitable reference sites and determine if the targeted species have been reported within five miles of the Project.

Field transects are conducted to ensure 100% visual coverage in all habitats of a site. All rare plant surveys are "floristic in nature, meaning that every plant taxon that occur onsite is identified to the taxonomic level necessary to determine rarity and listing status" (California Department of Fish and Wildlife, 2018). Many plant specimens are collected in the field and taken to the UCR Herbarium or other Consortium of California Herbaria (CCH)-approved herbaria to be vouchered. This process provides evidence to confirm a plant's identity, and to document it was found in a particular location.

Though not specifically described in the Rare Plant Protocol, all rare plant detections are recorded in the field utilizing Collector. Either a GIS "point" or "polygon" is created depending on the extent of the rare plant detection. Data recorded for each rare plant detection mirrors that of the CNDDDB's *California Native Species Field Survey Form*, and includes information such as total number of individuals, plant phenology (i.e., vegetative, flowering, fruiting), habitat description, and site information.

6.2.3 Field Survey Dates and Weather Conditions

The NEPS habitat assessment was conducted by biologist Tim Searl on April 18, 2022. Focused surveys were not conducted due to the lack of suitable habitat. Detailed survey information and conditions are presented in *Table 8 - MSHCP Section 6.1.3/6.3.2 Assessment Conditions* (Page 42).

Table 8 – MSHCP Section 6.1.3/6.3.2 Assessment Conditions¹⁶

DATE	BIOLOGIST	SURVEY TYPE ¹⁷	SURVEY TIME (24hr)	TEMPERATURE (°F)	HUMIDITY (%)	CLOUD COVER (%)	WIND SPEED (mph)	ANNUAL PRECIPITATION TO-DATE ¹⁸ (inches)
4/18/2022	Tim Searl	HA	0530-1200	48-74	66-42	10-10	2-6	8.16

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¹⁶ Temperature, Humidity, and Wind Speed were obtained in the field with a Kestrel handheld weather meter.

¹⁷ HA – Habitat Assessment

¹⁸ Annual Precipitation (July 01 to June 30) To-Date was obtained from PWS Weather Station SE434 located near the Project in Temecula, CA (PWS Weather, 2022).

6.3 Existing Conditions and Results

6.3.1 Query Results

The CFWO did not contain records of many-stemmed dudleya or slender-horned spine flower within five miles of the Property. According to the CNDDDB, many-stemmed dudleya was not reported within five miles of the Property. A total of four records of slender-horned spine flower were reported from 1989, 1990, 1993, and 2010. The nearest record was 3.47-miles south of the Site in 2010. This population occurred on “old alluvial benches” within Kolb Creek. *Figure 20 – NEPS Query Results* (Page 44) depicts the CNDDDB record locations.

6.3.2 NEPS Assessment Results

The NEPS assessment area on the Property lacked suitable habitat for many-stemmed dudleya and slender-horned spine flower. The area did not provide the habitat characteristics described in Table 6, and specifically, lacked clay soils, mature alluvial sage scrub, and chaparral.

6.4 Impacts

No NEPS impacts will occur due to the lack of suitable habitat on the Project.

6.5 Mitigation

No NEPS mitigation is required. The Project is consistent with MSHCP Section 6.1.3.

7.0 ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2)

The MSHCP covers 146 species of plants and animals of which 40 species have specific survey requirements (Dudek & Associates, Inc., 2003). 34 of the 40 species have an associated survey area map that designates areas where surveys may be required if suitable habitat is present (Dudek & Associates, Inc., 2003).

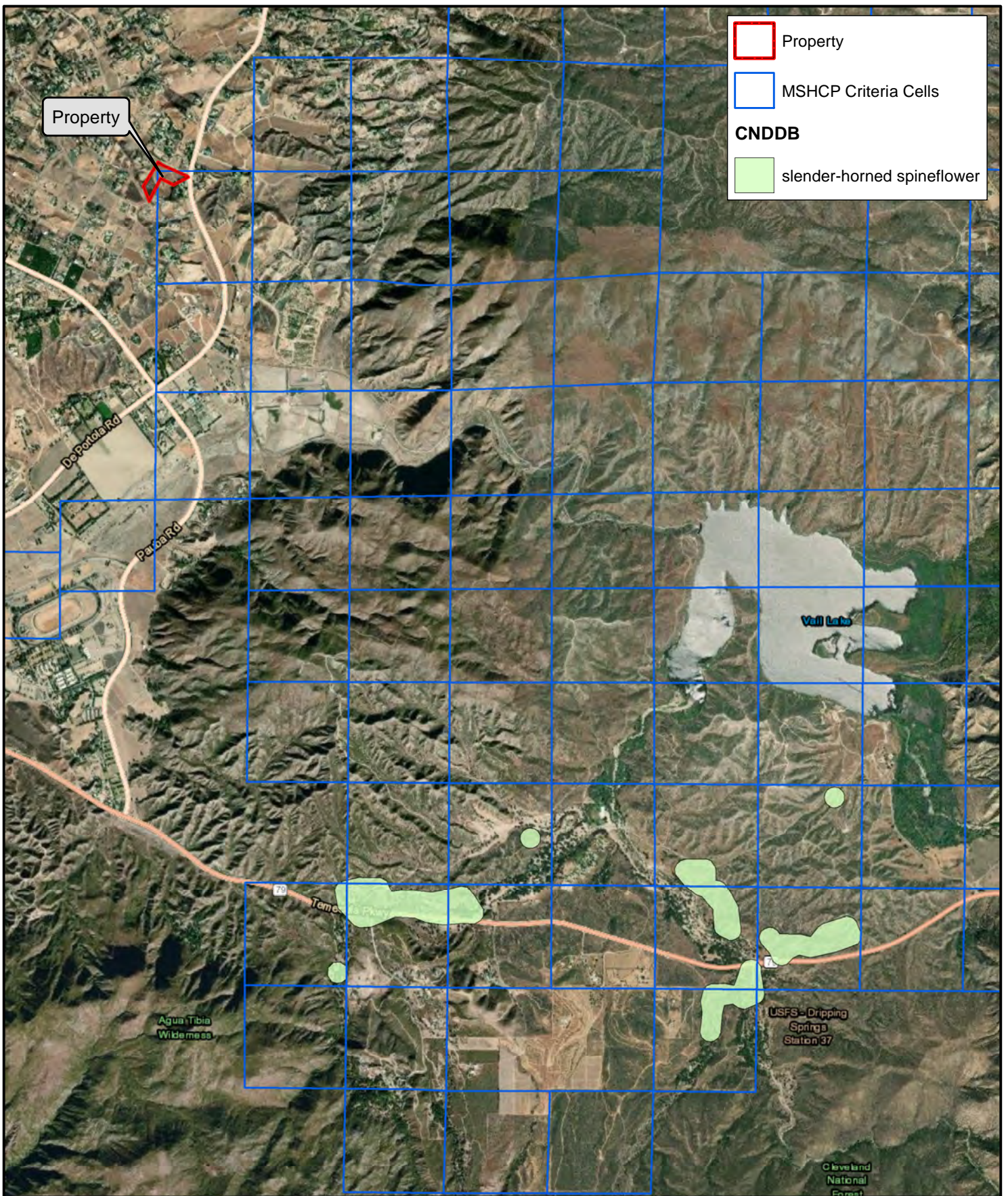
According to the MSHCP:

For locations with positive survey results, 90% of those portions of the Project that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met. Avoidance shall not be considered to be Conservation contributing to Reserve Assembly unless the avoided populations are acquired and managed as Additional Reserve Lands.

7.1 Criteria Area Plant Species

7.1.1 CAPS Assessment Area No. 5

The northeastern corner of the Property (0.03-acre [1,230.73-sqft]) was in CAPS Assessment Area No. 5 as depicted by *Figure 21 – CAPS Assessment Area* (Page 45) which targets three CAPS. A brief description of each species, based on information detailed in the MSHCP, CNPS, and the Jepson Online Interchange is provided in *Table 9 – CAPS Assessment Area No. 5* (Page 46).



Property
 MSHCP Criteria Cells
CNDDB
 slender-horned spineflower

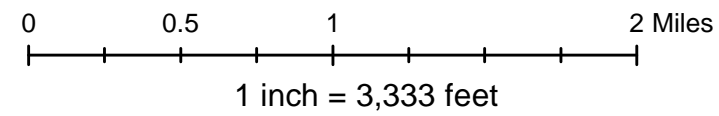


FIGURE 20
NEPS Query
Results

DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: ESRI World Imagery, ESRI World Transportation, RBH,
 Riverside County GIS Data, CNDDB

PROJECT:
 Haven Winery

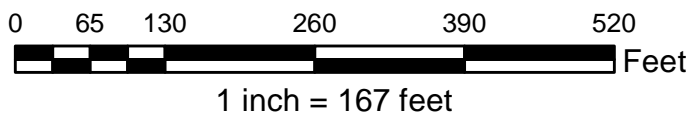
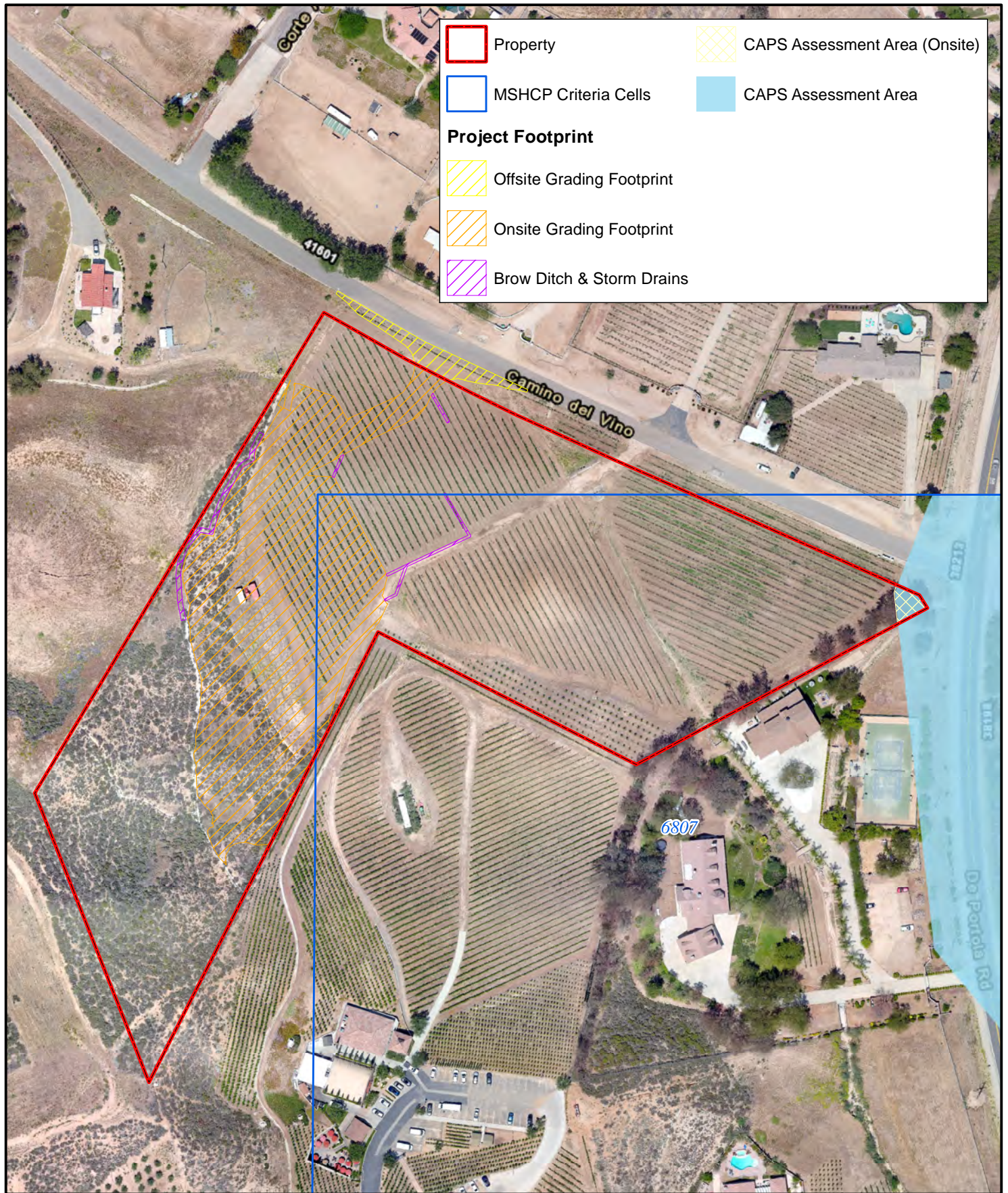


FIGURE 21
CAPS Assessment Area

DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: Geovironment (2022 Drone Aerial), ESRI World Transportation, RBH,
 Riverside County GIS Data

PROJECT:
 Haven Winery

Table 9 – CAPS Assessment Area No. 5

SPECIES/REGULATORY STATUS	SOILS	HABITAT	BLOOMING PERIOD	ECOLOGICAL NOTES
<p>Nevin’s barberry (<i>Berberis nevinii</i>)</p> <p>CRPR 1B.1</p> <p>Listed as Endangered by both the federal Endangered Species Act and California Endangered Species Act</p>	<p>Coarse soils and rocky slopes (chaparral) and gravelly wash margins (alluvial scrub).</p>	<p>Chaparral and alluvial scrub.</p>	<p>March through April</p>	<p>A toxic shrub that generally occurs at elevations less than 2,100-feet. Is often used in ornamental plantings and restoration projects often causing confusion of planted and naturally occurring populations.</p>
<p>round-leaved filaree (<i>California macrophylla</i>)</p> <p>CRPR changed from 1B.2 to Considered but Rejected (CBR)</p> <p>No federal or state status</p>	<p>Clay soils</p>	<p>Open cismontane woodland and valley and foothill grassland.</p>	<p>March through May</p>	<p>This annual/biennial typically occurs at elevations less than 4,000-feet. The CNPS states that this species was changed to CBR due to it being “[t]oo common statewide; [but] counties that contain small, localized populations under severe threat should track <i>C. macrophylla</i> as a species of local concern” (California Native Plant Society, 2020).</p>
<p>Vail Lake Ceanothus (<i>Ceanothus ophiophilus</i>)</p> <p>CRPR 1B.1</p> <p>Listed as Threatened by the federal Endangered Species Act and Endangered by the California Endangered Species Act</p>	<p>Shallow soils originating from ultrabasic parent rock and deeply weathered gabbro, which are both phosphorous-deficient. Ridges of pyroxenite-rich substrate</p>	<p>Dry habitats along ridgetops and north-northeast-facing slopes in chamise chaparral.</p>	<p>February through March</p>	<p>A perennial evergreen shrub that typically occurs at elevations between 2,000 and 3,600-feet. This species was first discovered in 1989 and often hybridizes with <i>Ceanothus crassifolius</i>.</p>

7.1.2 MSHCP Objectives

The MSHCP objectives for each of the targeted NEPS in Table 9 above are presented below.

Nevin's Barberry

Objective 1

Include within the MSHCP Conservation Area at least 8,000 acres of suitable habitat (chaparral and Riversidean alluvial fan sage scrub between 300 and 659 m in the Vail Lake area as depicted on Figure 6-1, the Narrow Endemic Plant Species Survey Area and the Agua Tibia Mountains Bioregion).

Objective 2

Include within the MSHCP Conservation Area the known locations for Nevin's barberry in the San Timoteo/Badlands area, Jurupa Hills and Agua Tibia/Vail Lake area.

Objective 3

Surveys for this species will be conducted as part of the project review process for public and private projects within the Criteria Area where suitable habitat is present (see Criteria Area Species Survey Area Map, Figure 6-2 of the MSHCP, Volume 1). Nevin's barberry located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.3.2, MSHCP, Volume 1.

Round-Leaved Filaree

Objective 1

Include within the MSHCP Conservation Area at least 37,663 acres of suitable habitat (grasslands and cismontane woodlands between 15 and 1,200 m within the Santa Ana Mountains and the Riverside Lowlands Bioregions).

Objective 2

Include within the MSHCP Conservation Area eight out of the 10 known localities of round-leaved filaree: four occurrences in the Gavilan Hills region, one at Lake Mathews, one along Temescal Wash near Lee Lake, one at Diamond Valley Lake and one in the foothills of the Agua Tibia Mountains.

Objective 3

Surveys for round-leaved filaree will be conducted as part of the project review process for public and private projects within the Criteria Area where suitable habitat is present (see Criteria Area Species Survey Area Map, Figure 6-2 of the MSHCP, Volume 1). Round-leaved filaree located as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.3.2 of the MSHCP, Volume 1.

Vail Lake Ceanothus

Objective 1

Include within the MSHCP Conservation Area at least 13,290 acres of suitable habitat (chaparral in the vicinity of Vail Lake and the Agua Tibia Wilderness).

Objective 2

Include within the MSHCP Conservation Area at least three core locations in the vicinity of Vail Lake and the Agua Tibia Wilderness area.

Objective 3

Surveys for this species will be conducted as part of the project review process for public and private projects within the Criteria Area where suitable habitat is present (see Criteria Area Species Survey Area Map, Figure 6-2 of the MSHCP, Volume 1). This species located

as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.3.2, MSHCP, Volume I.

7.1.3 CAPS Assessment Methods

Please see Section 6.0 of this document for a detailed description of the methods employed to conduct rare plant assessments.

7.1.4 CAPS Query

The CNDDDB and CFWO were both queried to determine if the three species had been reported within five miles of the Property.

7.1.5 Existing Conditions and Results

Field Survey Date and Weather Conditions

The MSHCP Section 6.3.2 CAPS assessment was conducted by biologist Tim Searl on April 18, 2022. Please see Table 8 above for detailed survey information and conditions.

Query Results

Nevin's barberry and Vail Lake Ceanothus have both reported within five miles of the Property according to the CNDDDB. Round-leaved filaree was not reported within five miles of the Property, and no records existed for the three species in the CFWO within five miles. *Figure 22 – CAPS Query Results* (Page 49) depicts the CNDDDB locations. The CNDDDB reports a total of seven records of Nevin's barberry from 1989, 1990, 2012 and 2014; and two records of Vail Lake ceanothus from 2009. The nearest documented occurrence to the Property was Vail Lake ceanothus approximately 2.36-miles southeast in 2009. It was restricted to north-facing slopes near the summit of "Little" Oak Mountain Summit on "pyroxenite¹⁹-rich outcrops with dark reddish-brown, barren soil."

CAPS Assessment Results

The CAPS assessment area on the Property did not support suitable habitat for Nevin's barberry, round-leaved filaree, or Vail Lake Ceanothus. Soils and specific habitat requirements for each species described in detail in Table 9 above were lacking in the 0.03-acre area.

7.1.6 Impacts

No CAPS impacts will occur due to the lack of suitable habitat for CAPS on the Project.

7.1.7 Mitigation

No CAPS mitigation is required. The Project is consistent with the CAPS section of MSHCP Section 6.3.2.

7.2 Amphibians

The Property and offsite Project area were not located within a designated assessment area for Amphibians.

7.3 Burrowing Owl

The Property and offsite Project area were located within a MSHCP-designated assessment area for BUOW as depicted by *Figure 23 – BUOW Assessment Area* (Page 50). A description of the MSHCP Objectives and BUOW assessment process are provided below.

¹⁹ "An ultramafic igneous rock consisting essentially of minerals of the pyroxene group, such as augite, diopside, hypersthene, bronzite or enstatite."

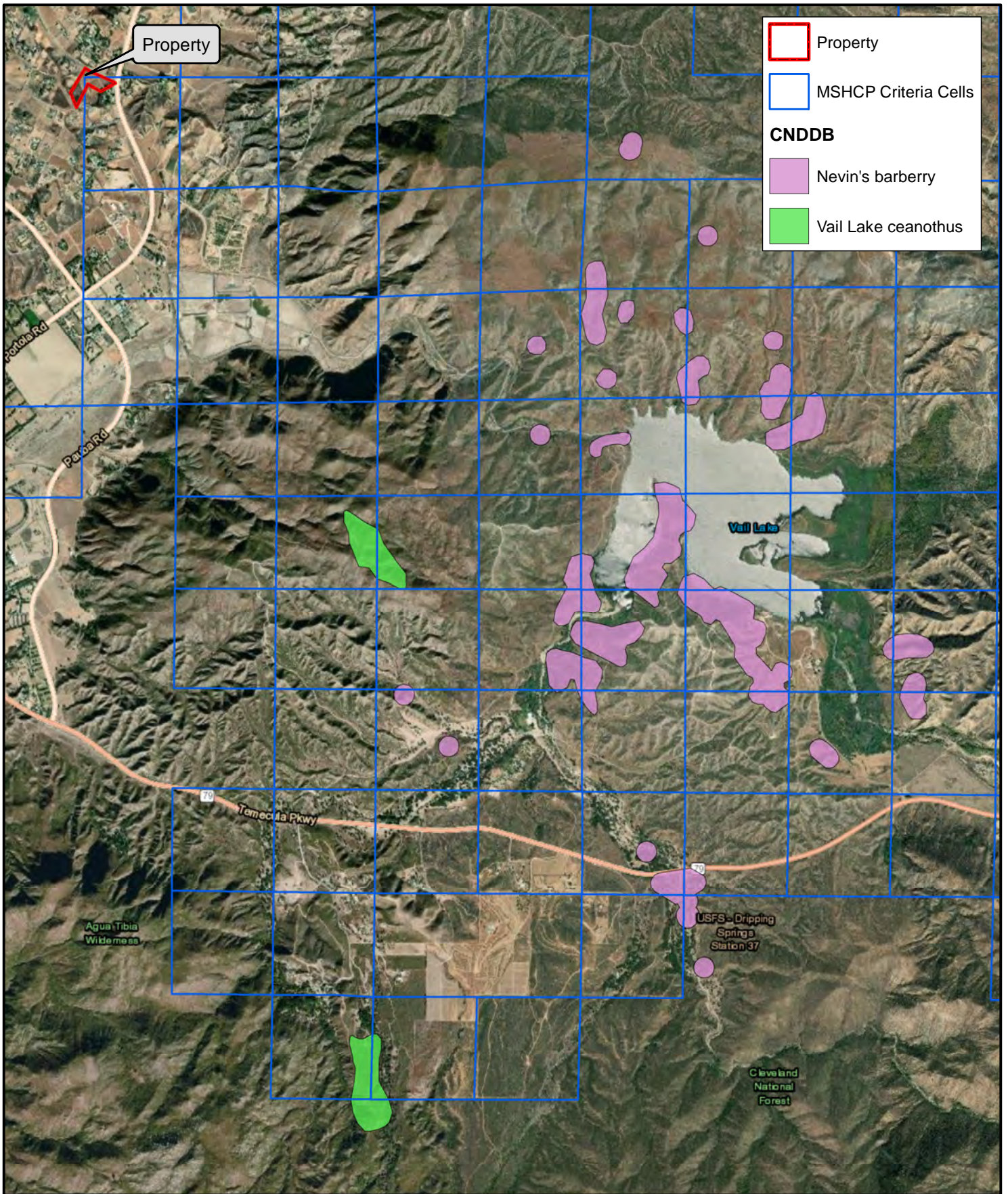
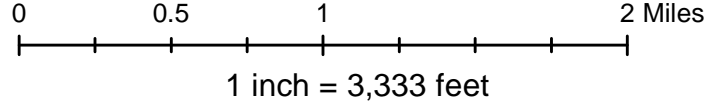
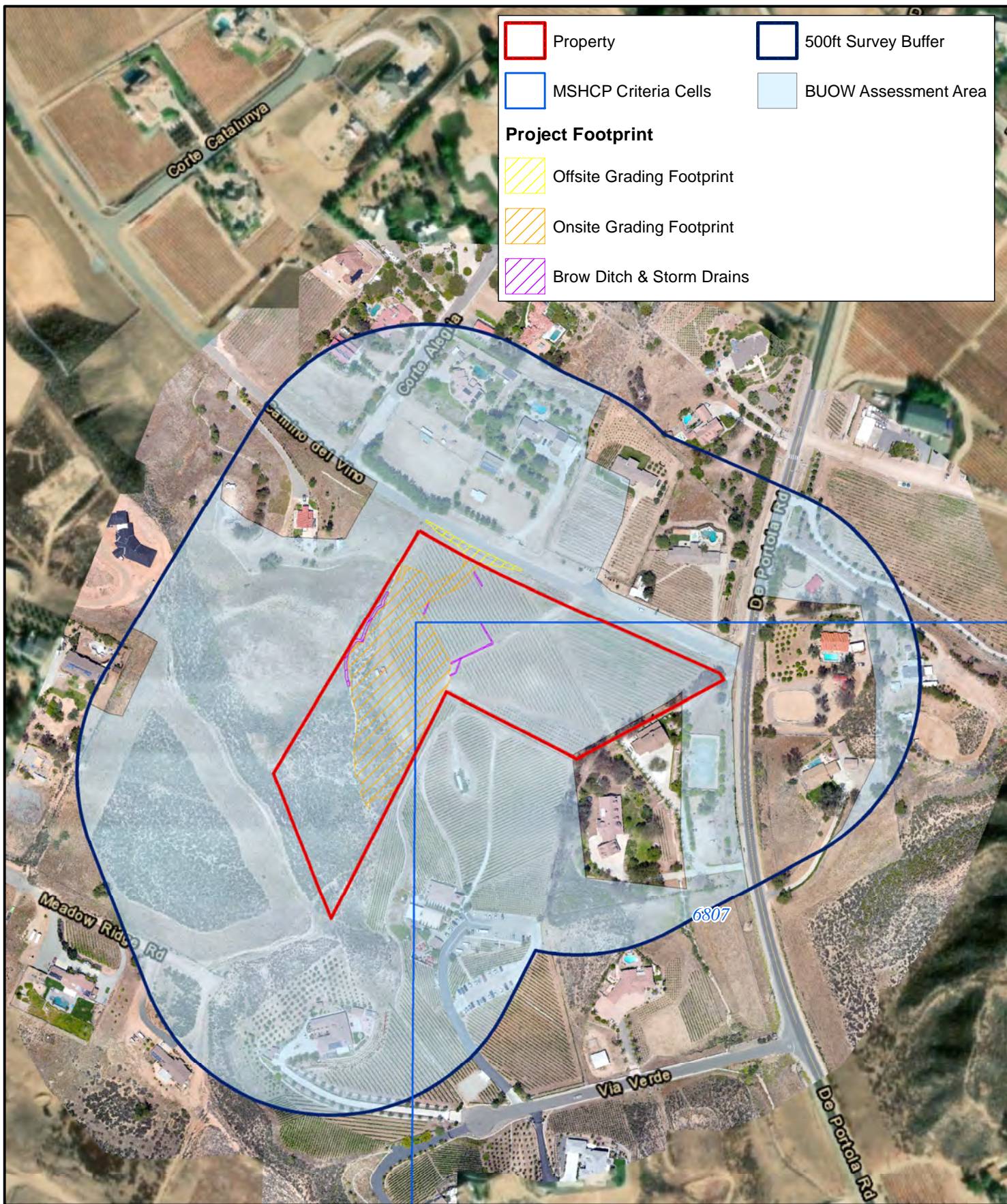









FIGURE 22
CAPS Query Results



DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: ESRI World Imagery, ESRI World Transportation, RBH,
 Riverside County GIS Data, CNDDB

PROJECT:
 Haven Winery



	Property		500ft Survey Buffer
	MSHCP Criteria Cells		BUOW Assessment Area
Project Footprint			
	Offsite Grading Footprint		
	Onsite Grading Footprint		
	Brow Ditch & Storm Drains		

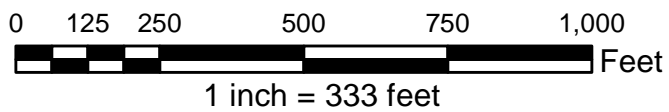


FIGURE 23
BUOW Assessment Area

DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: Geovironment (2022 Drone Aerial), ESRI World Transportation,
 ESRI World Imagery, RBH, Riverside County GIS Data

PROJECT:
 Haven Winery

7.3.1 Background

MSHCP Objectives

The MSHCP objectives for BUOW include the following:

Objective 1

Include within the MSHCP Conservation Area at least 27,470 acres of suitable primary habitat for the burrowing owl including grasslands.

Objective 2

Include within the MSHCP Conservation Area at least 5 Core Areas and interconnecting linkages. Core areas may include the following: (1) Lake Skinner/Diamond Valley Lake area (Existing Core C plus Proposed Extension of Existing Cores 5, 6, 7; 29,060 acres); (2) playa west of Hemet (Proposed Noncontiguous Habitat Block 7; 1,250 acres); (3) San Jacinto Wildlife Area/Mystic Lake area including Lake Perris area (Existing Core H; 17,470 acres); (4) Lake Mathews (Existing Core C plus Proposed Extension of Existing Cores 2; 23,710 acres); and (5) along the Santa Ana River (9,670 acres). The Core Areas should support a combined total breeding population of approximately 120 burrowing owls with no fewer than five pairs in any one Core area.

Objective 3

Include within the MSHCP Conservation Area at least 22,120 acres of suitable secondary habitat for the burrowing owl including playas and vernal pools, and agriculture outside of the Core Areas identified above. Areas where additional suitable habitat could be conserved include west of the Jurupa Mountains, near Temescal Wash (i.e., vicinity of Alberhill), near Temecula Creek, within the Lakeview Mountains, Banning, the Badlands, Gavilan Hills, and Quail Valley.

Objective 4

Include within the MSHCP Conservation Area the known nesting locations of the burrowing owl at Lake Perris, Mystic Lake/San Jacinto Wildlife area, Lake Skinner area, the area around Diamond Valley Lake, playa west of Hemet, Lakeview Mountains, Lake Mathews/Estelle Mountain Reserve and Sycamore Canyon Regional Park.

Objective 5

Surveys for burrowing owl will be conducted as part of the project review process for public and private projects within the burrowing owl survey area where suitable habitat is present (see Burrowing Owl Survey Area Map, Figure 6-4 of the MSHCP, Volume I). The locations of this species determined as a result of survey efforts shall be conserved in accordance with procedures described within Section 6.3.2, MSHCP, Volume I and the guidance provided below:

Burrowing owl surveys shall be conducted utilizing accepted protocols as follows. If burrowing owls are detected on the project site then the action(s) taken will be as follows:

If the site is within the Criteria Area, then at least 90 percent of the area with long-term conservation value will be included in the MSHCP Conservation Area. Otherwise:

- 1. If the site contains, or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than 3 pairs of*

burrowing owls, then the on-site burrowing owls will be passively or actively relocated following accepted protocols.

- If the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite.*

The survey and conservation requirements stated in this objective will be eliminated when it is demonstrated that Objectives 1 – 4 have been met.

Objective 6

Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present will be conducted for all Covered Activities through the life of the permit. Surveys will be conducted within 30 days prior to disturbance. Take of active nests will be avoided. Passive relocation (use of one way doors and collapse of burrows) will occur when owls are present outside the nesting season.

Objective 7

Translocation sites for the burrowing owl will be created in the MSHCP Conservation Area for the establishment of new colonies. Translocation sites will be identified, taking into consideration unoccupied habitat areas, presence of burrowing mammals to provide suitable burrow sites, existing colonies and effects to other Covered Species. Reserve Managers will consult with the Wildlife Agencies regarding site selection prior to translocation site development.

Life History

The BUOW is a priority 2 California Species of Special Concern (SSC) (Gervais, 2008), and is a Covered species under the MSHCP. In California, the BUOW is a year-round resident throughout much of the state (Gervais, 2008); however, migrants from other regions of western North America may augment resident lowland populations in winter (Gervais, 2008). Habitat for the BUOW primarily consists of open grasslands, but it also occurs in some human-altered landscapes such as agricultural environments (Gervais, 2008). Nest and roost burrows of the BUOW are most commonly dug by the California ground squirrel in California, but it will also utilize burrows and dens constructed by the American badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox (*Urocyon cinereoargenteus* and *Vulpes* spp.) (Gervais, 2008).

The diet of the BUOW consists primarily of insects (i.e., centipedes, spiders, beetles, crickets, and grasshoppers) (Gervais, 2008), but it will also take small mammals, reptiles, birds, and carrion (i.e., dead flesh) (Polite, 1999). BUOW hunt from a perch, hover, hawk, dive, and hop after prey on the ground (Polite, 1999). Although insects dominate the BUOW diet numerically, recent research has suggested that in California, rodent populations, particularly those of the California vole (*Microtus californicus*), may greatly influence BUOW survival and reproductive success (Gervais, 2008).

The BUOW breeding season is typically March through August with peak breeding activity occurring in April and May (Polite, 1999). Male BUOW give courtship displays and notes in front of the burrow (Polite, 1999). Clutch size is relatively large with a range of two to ten eggs and a mean of five to six eggs per clutch (Polite, 1999). Young BUOW emerge from the burrow at about two weeks old and can fly by about four weeks old (Polite, 1999).

Burrowing Owl Survey Protocols

Habitat assessments and focused surveys for BUOW in the MSHCP Plan Area are conducted in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (Environmental Programs Department, 2006) (BUOW Survey Instructions). The MSHCP references the California Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines* (California Burrowing Owl Consortium, 1993), which was adopted by CDFW in 1995. On March 7, 2012, CDFW provided a revised *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Wildlife, 2012) that provides more current scientific methods. The survey methods described in the BUOW Survey Instructions and CDFW's revised staff report are similar. However, the BUOW Survey Instructions provide additional detail to ensure consistency with specific conservation requirements of the MSHCP. Surveys were conducted with an attempt to incorporate CDFW guidance, where appropriate such as the *Time of Day* specifically stating that surveys shall be conducted until 10:00 AM. The BUOW Survey Instructions are detailed below.

The BUOW Survey Instructions describe Step I as follows:

"The first step in the assessment process is to walk the property to identify the presence of burrowing owl habitat on the project site. If habitat is found on the site, then walk a 150-meter (approximately 500 feet) buffer zone around the project boundary. If permission to access the buffer area cannot be obtained, do not trespass on adjacent property but visually inspect the adjacent habitat areas with binoculars and/or spotting scopes."

If a habitat assessment reveals that BUOW habitat occurs on a site, then, in the least, a *Step II Part A: Focused Burrow Surveys* and *Pre-construction Survey* are required. If BUOW habitat is not present, then no further surveys are required.

Step II surveys consist of two parts; *Part A: Focused Burrow Surveys* and *Part B: Focused Burrowing Owl Surveys*. All Step II surveys must be conducted during the BUOW breeding season (March 1 to August 31), generally between the hours of one hour before sunrise and two hours after sunrise, and/or two hours before sunset and one hour after sunset. Further, Step II surveys cannot be conducted within five days of rain, during rain, high winds (>20mph), dense fog, or temperatures exceeding 90 °F.

Part A surveys are conducted to detect natural potential BUOW burrows (i.e., CGS burrows), suitable human-created burrow surrogates (i.e., culverts), and/or occupied BUOW burrows. The BUOW Survey Instructions describe the methods for conducting a Part A survey and those are presented below.

"1. A systematic survey for burrows including burrowing owl sign should be conducted by walking through suitable habitat over the entire survey area (i.e. the project site and within 150 meters). Pedestrian survey transects need to be spaced to allow 100% visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (approximately 100 ft.) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more qualified surveyors conduct concurrent surveys."

"2. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed should be recorded and mapped, including GPS coordinates. If the survey area contains natural or man-made structures that could potentially support burrowing owls, or owls are observed during the burrow surveys, the systematic surveys should continue as prescribed in Part B. If no potential burrows are

detected, no further surveys are required. A written report including photographs of the project site, location of burrowing owl habitat surveyed, location of transects, and burrow survey methods should be prepared. If the report indicates further surveys are not required, then the report should state the reason(s) why further focused burrowing owl surveys are not necessary."

Part B surveys are conducted on four separate field survey dates, and the first survey may be conducted concurrent with the Part A survey. These four focused surveys are conducted to adequately determine the presence or absence of BUOW when those structures or features it inhabits, as described above, are present on a subject property. The BUOW Survey Instructions describe the methods for conducting Part B surveys and those are presented below.

"1. Upon arrival at the survey area and prior to initiating the walking surveys, surveyors using binoculars and/or spotting scopes should scan all suitable habitat, location of mapped burrows, owl sign, and owls, including perch locations to ascertain owl presence. This is particularly important if access has not been granted for adjacent areas with suitable habitat."

"2. A survey for owls and owl sign should then be conducted by walking through suitable habitat over the entire project site and within the adjacent 150 m (approx. 500 feet). These "pedestrian surveys" should follow transects (i.e. Survey transects that are spaced to allow 100% visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (approx 100 feet.) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more qualified surveyors conduct concurrent surveys.) It is important to minimize disturbance near occupied burrows during all seasons."

"3. If access is not obtained, then the area adjacent to the project site shall also be surveyed using binoculars and/or spotting scopes to determine if owls are present in areas adjacent to project site. This 150-meter buffer zone is included to fully characterize the population. If the site is determined not to be occupied, no further surveys are required until 30 days prior to grading (see Pre-construction Surveys below)."

After the completion of the proper surveys, a final report shall be submitted to the appropriate Lead Agency (i.e., City or County). The final report shall contain and discuss the necessary information (i.e., survey methods, transect widths, duration, conditions, results, etc.), and the appropriate maps (i.e., transect location map, burrow location map, etc.).

All subject properties containing suitable habitat and/or potential BUOW burrows must conduct a Pre-Construction Survey within 30 days prior to ground disturbance. This includes sites where BUOW were determined to be absent.

7.3.2 Methods

CNDDDB Query

SBS conducted a query of the CNDDDB GIS data to determine if any BUOW have been reported to occur within five miles of the Property. The results of the query are presented in section 7.3.3 below.

Field Survey Date and Weather Conditions

The Step I: Habitat Assessment was conducted concurrently with the first Step II surveys by biologist Tim Searl on April 18, 2022. The remaining Step II surveys were conducted by Tim Searl on May 10, June 1, and June 24. Detailed survey information and conditions are presented in *Table 10 - BUOW Assessment Conditions* (Page 56).

Field Assessment

Step I: Habitat Assessment

Initially, the Site and surrounding area was observed from a vehicle while parked (i.e., windshield survey) to observe general habitat conditions. After performing the “windshield survey,” a pedestrian survey of the Project area was conducted. Transects were spaced at approximately 50 to 100-feet to allow for 100% visual coverage. Field observations such as plant communities, vegetation height and density, topography, and soil suitability were noted. Habitat suitability for BUOW was classified and mapped as Low²⁰, Moderate²¹, or High²². Areas not mapped were determined Not Suitable for BUOW.

The Step II Part A: Focused Burrow Survey

Pedestrian transects were spaced at approximately 50 to 100-feet to allow for 100% visual coverage and inspect each burrow or burrow surrogate. Potential BUOW burrows (i.e., CGS burrows) and burrow surrogates (i.e., cement culverts, asphalt piles, rock piles, and openings underneath cement or asphalt pavement) detected as part of a focused burrow survey are mapped in the field utilizing Collector. Data collected for each burrow location includes type of burrow or burrow surrogate, a range of the number of burrows (i.e., single burrow vs. burrow complex), number of burrows, presence or absence of BUOW sign (i.e., feathers, wash, pellets, etc.), and pertinent ecological notes.

Step II Part B: Focused Burrowing Owl Surveys

Pedestrian transects were spaced at approximately 50 to 100-feet to allow for 100% visual coverage. If BUOW are detected the location is recorded using Collector. Additional data recorded includes the number of adults and juveniles, detection location (i.e., burrow site, perch, etc.), and any pertinent ecological and/or behavioral observations.

7.3.3 Existing Conditions and Results

CNDDDB Query

A total of four records of BUOW from 1999, 2007, and two from 2016 have been reported within five miles of the Property. The nearest documented occurrence was approximately 3.37-miles northwest of the Property in 2007. Five breeding pairs were estimated in “natural brushy grassland.” *Figure 24 - BUOW Query Results* (Page 57) depicts the locations for the four records.

Assessment Results

The results of the BUOW assessment are detailed below. The suitable habitat, transect locations, and potential owl burrows are depicted on *Figure 25 – BUOW Assessment Results* (Page 58). Representative photographs of the Site and surrounding area are presented in Appendix E.

²⁰ The habitat was structurally suitable; however, factors such as compacted soils, several trees present, dense/tall vegetation, human activity (i.e., disking, historical use), domesticated dogs/cats, etc. have degraded the quality of the habitat.

²¹ The habitat was structurally suitable with less of the above degrading factors, but still not “preferred” BUOW habitat.

²² The habitat was open, treeless to nearly treeless, with low growing/sparse vegetation supporting high densities of fossorial mammals.

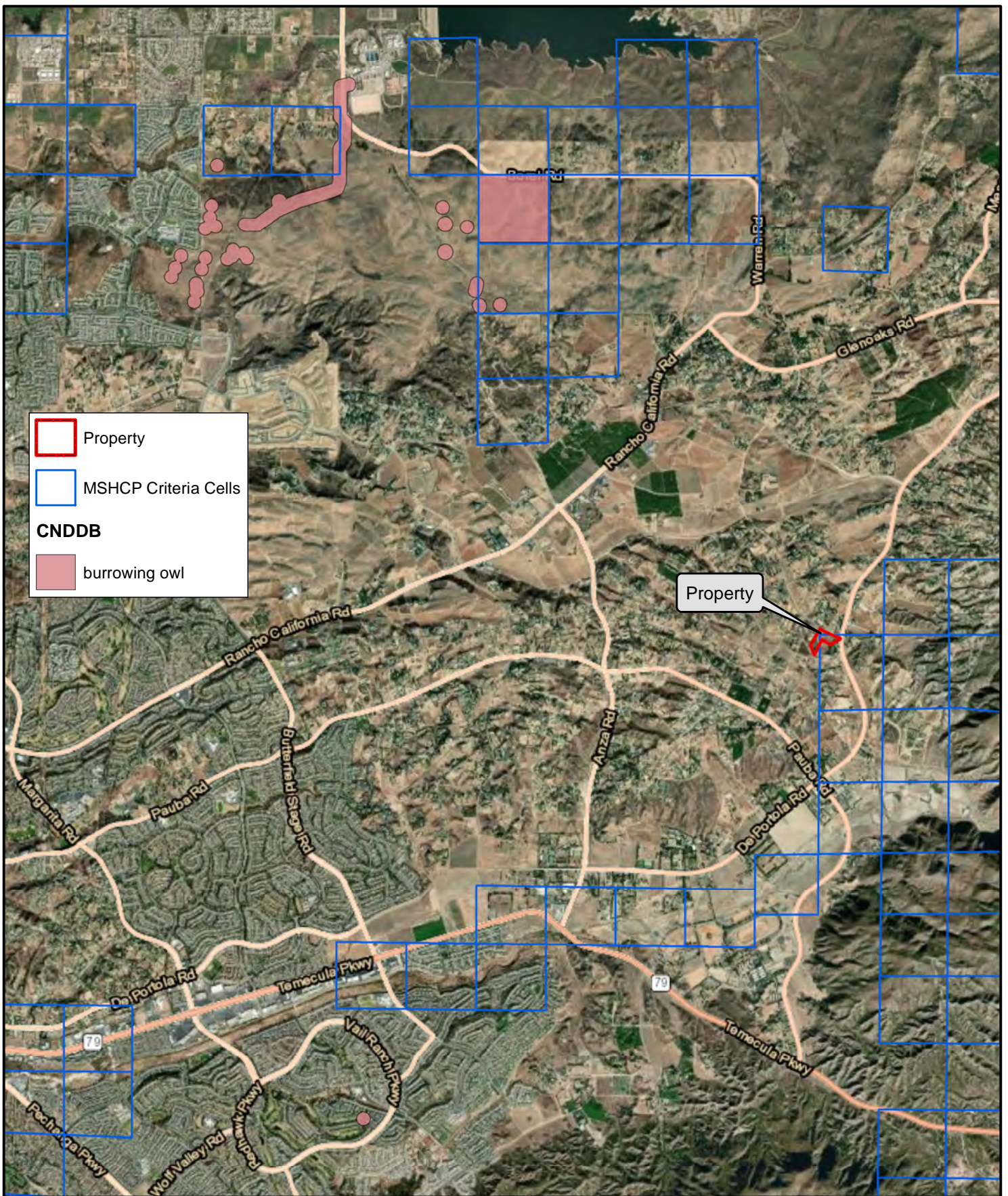
Table 10 – BUOW Assessment Conditions²³

DATE	BIOLOGIST	SURVEY TYPE ²⁴	SURVEY TIME (24hr)	SUNRISE	TEMPERATURE (°F)	HUMIDITY (%)	CLOUD COVER (%)	WIND SPEED (mph)	MOON PHASE (% Illuminated)
4/18/2022	Tim Searl	HA, BS, FS	0530-1200	0614	48-74	66-42	10-10	2-6	Waning Gibbous (94)
5/10/2022	Tim Searl	BS, FS	0600-1000	0551	42-59	88-53	10-10	2-4	First Quarter (68)
6/1/2022	Tim Searl	BS, FS	0600-0930	0539	53-74	73-44	0-0	2-3	Waxing Crescent (5)
6/24/2022	Tim Searl	BS, FS	0530-0900	0539	79-87	39-30	0-0	0-3	Waning Crescent (16)

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²³ Temperature, Humidity, and Wind Speed were obtained in the field with a Kestrel handheld weather meter. Sunrise was obtained from the Sunset and Sunrise Application Version 4.8.0. Moon phase data was obtained from The Moon App V4.7.

²⁴ HA: Habitat Assessment, BS: Focused Burrow Survey, FS: Focused BUOW Survey.



Property

Property
 MSHCP Criteria Cells
CNDDB
 burrowing owl

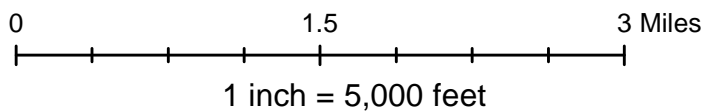


FIGURE 24
BUOW Query
Results

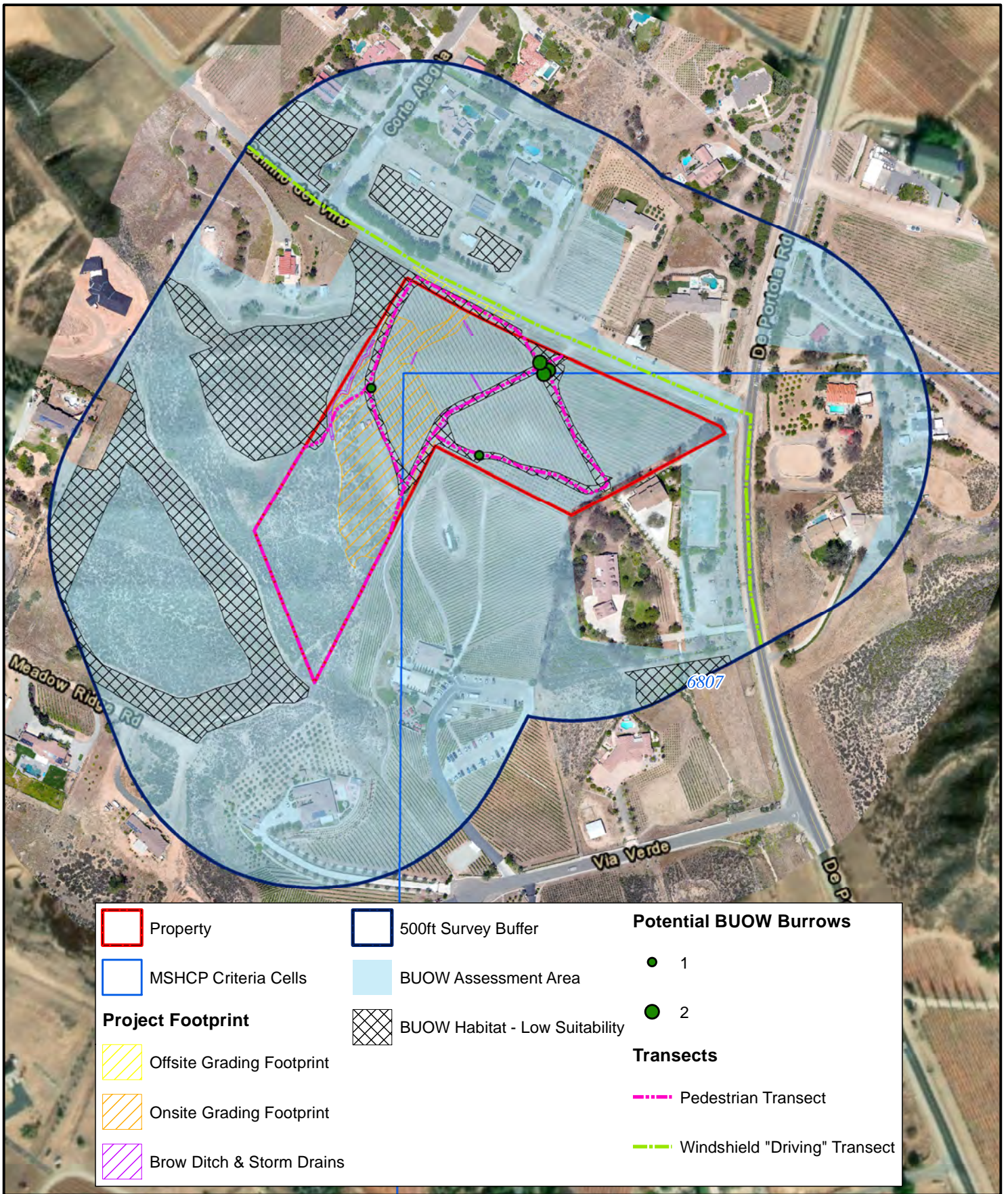
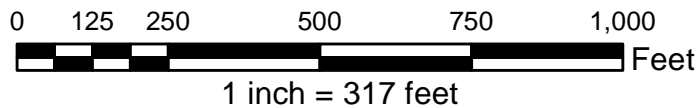


FIGURE 25
BUOW Assessment
Results



Step I: Habitat Assessment

The 52.20-acre MSHCP-designated BUOW Assessment Area within 500-feet of the Property/offsite Project supported 8.65-acres of low-quality habitat for BUOW. Given most of the area was either a rural residence or vineyard, the available habitat was limited and fragmented. This included areas cleared for fuel modification, seldom used dirt roads (i.e., Property), and horse pastures.

The Step II Part A: Focused Burrow Survey

The Property supported five CGS burrow complexes that ranged from a single burrow up to two burrows for a total of eight. No BUOW sign was detected at any of the burrow entrances. No burrow surrogates suitable for BUOW were detected.

Step II Part B: Focused Burrowing Owl Surveys

No BUOW were detected on or within 500-feet of the Property/Project over the course of the four protocol-level focused BUOW surveys.

7.3.4 Impacts

No Project impacts will occur to BUOW with the implementation of the required 30-Day BUOW Pre-Construction Survey.

7.3.5 Mitigation

Due to the presence of potentially suitable habitat, a 30-day pre-construction survey for BUOW is required prior to initial ground-disturbing activities (including vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, grading, etc.) to ensure that no owls have colonized the Site in the days or weeks preceding the ground-disturbing activities. If BUOW have colonized the Project site prior to the initiation of ground-disturbing activities, the Project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies, and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the Site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure BUOW has not colonized the Site since it was last disturbed. If BUOW is found, the same coordination described above will be necessary.

The Project is consistent with the BUOW section of MSHCP Section 6.3.2 with the implementation of the mitigation.

7.4 Mammals

The Property and offsite Project area were not located within a designated assessment area for Mammals.

8.0 INFORMATION ON OTHER SPECIES

8.1 Delhi Sands Flower Loving Fly

The Property and offsite Project area were not located in an area with Delhi sands.

8.2 Species Not Adequately Conserved

No species listed in MSHCP Table 9-3 (Dudek & Associates, Inc., 2003) were detected on or near the Site.

8.3 Additional Regulatory-Status Species Requiring Special Consideration

8.3.1 Coastal California Gnatcatcher

Coastal California Gnatcatcher (*Polioptila californica californica*) (CAGN) was detected in the coastal sage scrub on the Property on each of the four BUOW focused surveys. Nesting on the Property was

suspected as adults were observed feeding two recently fledged young on June 1. The CAGN detection locations and suitable CAGN habitat are depicted on *Figure 26 – CAGN Detections* (Page 61). The suitable habitat totaled 3.0-acres with 2.98-acres (99.99%) occurring outside the boundary of Cell Group C, and 0.02-acre (724.73-sqft) within Cell Group C.

CAGN Mitigation

SBS recommends the following mitigation measures.

1. A CAGN-permitted biologist shall be designated and responsible for overseeing compliance with avoidance measures (e.g., pre-construction surveys, buffers) for CAGN during grading activities.
2. If grading occurs during the CAGN nesting season, at least three presence/absence surveys shall be conducted one week apart per the *USFWS CAGN Presence/Absence Survey Guidelines* (U. S. Fish & Wildlife Service, 1997) between February 15 and August 30 prior to the commencement of grading activities.
3. If grading occurs during the CAGN nesting season, a CAGN-permitted biologist shall conduct full-time biological monitoring during grading operations and will have the authority to establish a 300-foot no disturbance buffer around active nests if present.

8.4 Nesting Birds

The Migratory Bird Treaty Act of 1918 (MBTA) created an “*Establishment of a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird.*”

Further, the California Fish and Game Code (CFGC) states the following:

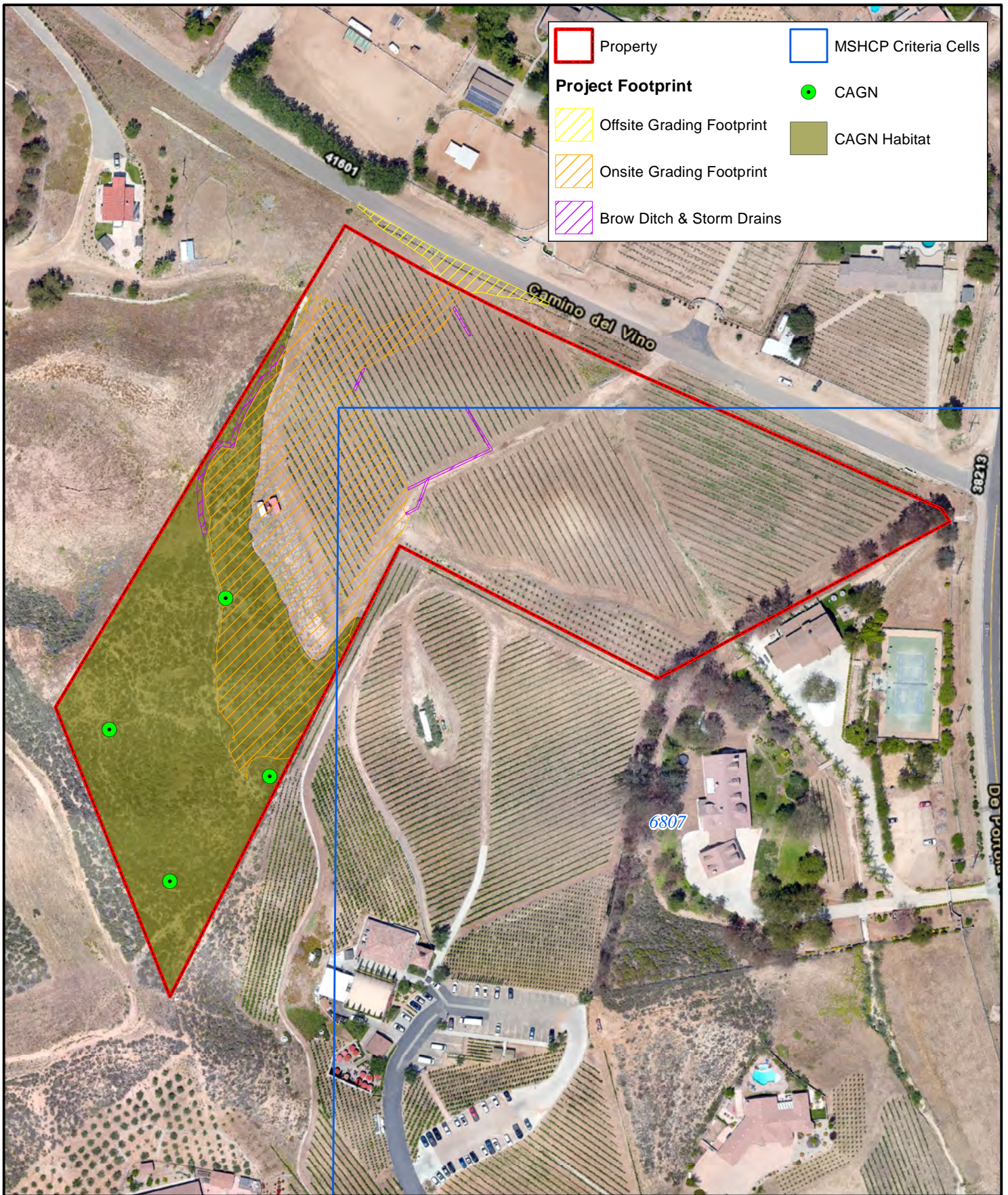
CFGC 3503: “*It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.*”

CFGC 3503.5: “*It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.*”

Nesting Bird Mitigation

If construction activities occur during the nesting bird season (i.e., January 1 – August 31 for raptors and hummingbirds; February 1 – August 31 for all other birds), then a pre-construction nesting bird survey shall be conducted prior to and within three days of construction activities. The biologist shall have the authority to establish no disturbance buffers with the distances determined by factors such as species, tolerance of disturbance, nest status, etc.

If nesting bird surveys result in the need for a biological monitor to be present during construction activities, then one shall be present full-time to monitor construction activities to ensure no direct or indirect impacts occur to potential nest success. The biologist shall have the authority to suspend construction activities if potential impacts are observed.



	Property		MSHCP Criteria Cells
Project Footprint			CAGN
	Offsite Grading Footprint		CAGN Habitat
	Onsite Grading Footprint		
	Brow Ditch & Storm Drains		

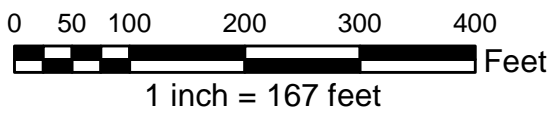


FIGURE 26
CAGN Detections



DATE: December 23, 2022
 COORDINATE SYSTEM: NAD 1983 State Plane California Zone VI
 SOURCE: Geovironment (2022 Drone Aerial), ESRI World Transportation, RBH,
 Riverside County GIS Data

PROJECT:
 Haven Winery

9.0 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (SECTION 6.1.4)

MSHCP Section 6.1.4 provides recommendations and guidelines to minimize potential “edge effects”²⁵ resulting from locating development projects near the MSHCP Reserve Assembly or MSHCP conserved resources. Measures, such as buffers and/or barriers, are typically put in place to control drainage, toxics, lighting, noise, and invasives.

The Site was located within Cell Group C. The Project will not have adverse edge effects on the ARL given the lack thereof near the Site; however, the following 6.1.4 Guidelines will be implemented to minimize edge effects to the nearby conserved lands and habitats.

- Drainage: The Project will implement BMPs and prepare an Erosion Control Plan (ECP) and Water Quality Management Plan (WQMP).
- Toxics: The Project will implement BMPs and prepare an ECP and WQMP.
- Lighting: The Project’s lighting shall be shielded from offsite areas to the east.
- Noise: The Project will not produce any amount of noise that would be considered an impact to future ARL.
- Invasives: Any Project-related landscaping should avoid those listed in Table 6-2 of the MSHCP (Dudek & Associates, Inc., 2003). SBS also recommends that any future landscaping consist of appropriate native, drought-tolerant species.
- Barriers: No barriers are proposed
- Grading/Land Development: No grading will extend offsite other than the ingress/egress lane on De Portola Road.

10.0 BEST MANAGEMENT PRACTICES (VOLUME I, APPENDIX C)

The following BMPs, taken directly from the MSHCP (Dudek & Associates, Inc., 2003), should be implemented to the extent feasible and where applicable.

1. A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
2. Water pollution and erosion control plans shall be developed and implemented in accordance with [Regional Water Quality Control Board] RWQCB requirements.
3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
4. The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.

²⁵ Edge effects are defined by the MSHCP as “Adverse direct and indirect effects to species, Habitats and Vegetation Communities along the natural urban/wildlands interface. May include predation by mesopredators (including native and non-native predators), invasion by exotic species, noise, lighting, urban runoff, and other anthropogenic impacts (trampling of vegetation, trash and toxic materials dumping, etc.)”

5. Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian identified in MSHCP Global Species Objective No. 7.
7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing of other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, FWS [USFWS], and CDFG [CDFW], RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
10. The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
13. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
15. The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

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12.0 CERTIFICATION

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

Signed: Tim Searl Date: December 23, 2022
Tim Searl, Owner/Biologist, Searl Biological Services
Permit Number: TE02351A-1

FIGURE DISCLAIMER

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

APPENDIX A

Grading Plan

PRELIMINARY GRADING PLAN

FOR
HAVEN WINERY
COUNTY OF RIVERSIDE, CALIFORNIA

GENERAL

- ALL GRADING SHALL CONFORM TO THE 2016 CALIFORNIA BUILDING CODE CHAPTER 17, 18 & APPENDIX-J AS AMENDED BY ORDINANCE 457.
- ALL PROPERTY CORNERS, GRADING BOUNDARIES AND ALL CONSERVATION AREAS/LEAST SENSITIVE AREA (LSA) DETERMINED BY THE ENVIRONMENTAL PROGRAMS DEPARTMENT (EPD) SHALL BE CLEARLY DELINEATED AND STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION/GRADING.
- ALL WORK UNDER THIS PERMIT SHALL BE LIMITED TO WORK WITHIN THE PROPERTY LINES. ALL WORK WITHIN THE ROAD RIGHT-OF-WAY WILL REQUIRE SEPARATE PLANS AND A SEPARATE REVIEW-APPROVAL (PERMIT) FROM THE TRANSPORTATION DEPARTMENT.
- ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A SOILS ENGINEER IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION PREPARED BY:
CW SOILS, DATED JULY 8, 2019.
- COMPACTED FILL TO SUPPORT ANY STRUCTURES SHALL COMPLY WITH SECTION 1803.5.8. PROJECTS WITHOUT A PRELIMINARY SOILS REPORT SHALL INCLUDE DETAILED SPECIFICATIONS IN ACCORDANCE WITH SECTIONS 18012 AND 1803.5 PREPARED BY THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL NOTIFY THE BUILDING AND SAFETY DEPARTMENT AT LEAST 24 HOURS IN ADVANCE TO REQUEST FINISH LOT GRADE AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, TWO DAYS BEFORE DIGGING AT 1-800-422-4133.
- PRIOR TO GRADING, A MEETING SHALL BE SCHEDULED WITH A RIVERSIDE COUNTY ENVIRONMENTAL COMPLIANCE INSPECTOR PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.

CUT/FILL

- MAXIMUM CUT AND FILL SLOPE = 2:1 (HORIZONTAL TO VERTICAL).
- NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, TOPSOIL AND OTHER DELETERIOUS MATERIAL. FILLS SHOULD BE PLACED IN THIN LIFTS (8-INCH MAX OR AS RECOMMENDED IN THE SOILS REPORT), COMPACTED AND TESTED THROUGHOUT THE GRADING PROCESS UNTIL FINAL GRADE IS ATTAINED. ALL FILLS ON SLOPES STEEPER THAN 5 TO 1 (HORIZONTAL TO VERTICAL) AND A HEIGHT GREATER THAN 5 FEET SHALL BE KEYPED AND BENCHED INTO FIRM NATURAL SOIL FOR FULL SUPPORT. THE BENCH UNDER THE TOE MUST BE 10 FEET WIDE MINIMUM.
- THE SLOPE STABILITY FOR CUT AND FILL SLOPES OVER 30 FEET IN VERTICAL HEIGHT, OR CUT SLOPES STEEPER THAN 2:1 HAVE BEEN VERIFIED WITH A FACTOR OF SAFETY OF AT LEAST 1.5.
- NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12 INCHES SHALL BE BURIED OR PLACED IN FILLS CLOSER THAN 10 FEET TO THE FINISHED GRADE.

DRAINAGE, EROSION / DUST CONTROL

- DRAINAGE ACROSS PROPERTY LINES SHALL NOT EXCEED THAT WHICH EXISTED PRIOR TO GRADING. EXCESS OR CONCENTRATED DRAINAGE SHALL BE CONTAINED ON SITE OR DIRECTED TO AN APPROVED DRAINAGE FACILITY. EROSION OF THE GROUND IN THE AREA OF DISCHARGE SHALL BE PREVENTED BY INSTALLATION OF NON-EROSIVE DOWN DRAINS OR OTHER DEVICES.
- PROVIDE A PAVED SLOPE INTERCEPTOR DRAIN ALONG THE TOP OF CUT SLOPES WHERE THE DRAINAGE PATH IS GREATER THAN 40 FEET TOWARDS THE CUT SLOPE.
- PROVIDE 5' WIDE BY 1' HIGH BERM ALONG THE TOP OF ALL FILL SLOPES STEEPER THAN 3:1 (HORIZONTAL TO VERTICAL).
- THE GROUND SURFACE IMMEDIATELY ADJACENT TO THE BUILDING FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5-PERCENT SLOPE) FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE FOUNDATION.
- NO OBSTRUCTION OF NATURAL WATER COURSES SHALL BE PERMITTED.
- DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES TEMPORARY DRAINAGE CONTROL (BEST MANAGEMENT PRACTICES, BMPs) SHALL BE PROVIDED TO PREVENT PONDING WATER AND DRAINAGE TO ADJACENT PROPERTIES.
- DUST CONTROL SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
- FUGITIVE DUST CONTROL: CONSTRUCTION SITES SUBJECT TO PM10 FUGITIVE DUST MITIGATION SHALL COMPLY WITH AQMD RULE 403.1.
- ALL EXISTING DRAINAGE COURSES AND STORM DRAIN FACILITIES SHALL CONTINUE TO FUNCTION. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.
- FOR ALL SLOPES STEEPER THAN 4 TO 1 (H/V): ALL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT ARE REQUIRED TO BE PLANTED WITH AN APPROVED DROUGHT-TOLERANT GROUND COVER AT A MINIMUM SPACING OF 12" ON CENTER OR AS APPROVED BY THE ENGINEER OF RECORD OR THE REGISTERED LANDSCAPE ARCHITECT AND DROUGHT-TOLERANT SHRUBS SPACED AT NO MORE THAN 10' ON CENTER. SLOPES EXCEEDING 15' IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED SHRUBS NOT TO EXCEED 10' ON CENTER, OR TREES SPACED NOT TO EXCEED 20' ON CENTER, OR A COMBINATION OF SHRUBS AND TREES NOT TO EXCEED 15' IN ADDITION TO THE GRASS OR GROUND COVER. SLOPES THAT REQUIRE PLANTING SHALL BE PROVIDED WITH AN IN-GROUND IRRIGATION SYSTEM EQUIPPED WITH AN APPROPRIATE BACKFLOW DEVICE PER C.P.C. CHAPTER 6. THE SLOPE PLANTING AND IRRIGATION SYSTEM SHALL BE INSTALLED AS SOON AS POSSIBLE UPON COMPLETION OF ROUGH GRADING. ALL PERMANENT SLOPE PLANTING SHALL BE ESTABLISHED AND IN GOOD CONDITION PRIOR TO SCHEDULING PRECISE GRADE INSPECTION.

COMPLETION OF WORK

- ROUGH GRADE
- A REGISTERED CIVIL ENGINEER SHALL PREPARE FINAL COMPACTION REPORT/GRADING REPORT AND IT SHALL BE SUBMITTED TO THE DEPARTMENT OF BUILDING AND SAFETY FOR REVIEW AND APPROVAL. THE REPORT SHALL INCLUDE BUILDING FOUNDATION DESIGN PARAMETERS (ALLOWABLE SOIL PRESSURES, ETC.), EXPANSION INDEX (AND DESIGN ALTERNATIVES IF EI > 20), WATER SOLUBLE SULFATE CONTENT, CORROSIVITY AND REMEDIAL MEASURES IF NECESSARY.
- EXCEPT FOR NON-TRACT SINGLE RESIDENTIAL LOT GRADING, THE COMPACTION REPORT SHALL INCLUDE THE SPECIAL INSPECTION VERIFICATIONS LISTED ON TABLE 1705.6 OF 2016 CBC.
- THE COUNTY OF RIVERSIDE REQUIRES A LICENSED PROFESSIONAL ENGINEER TO SUBMIT A WET SIGNED AND STAMPED ROUGH GRADING CERTIFICATION WHICH INCLUDES PAD ELEVATIONS PRIOR TO REQUESTING INSPECTION AND ISSUANCE OF THE BUILDING PERMIT.
- ROUGH GRADE ONLY PERMITS: IN ADDITION TO OBTAINING ALL REQUIRED INSPECTIONS AND APPROVAL OF ALL FINAL REPORTS, ALL SITES PERMITTED FOR ROUGH GRADE ONLY SHALL PROVIDE VEGETATIVE COVERAGE (100 PERCENT) OR OTHER MEANS OF SITE STABILIZATION APPROVED BY ENVIRONMENTAL COMPLIANCE DIVISION, PRIOR TO RECEIVING A ROUGH GRADE PERMIT FINAL.

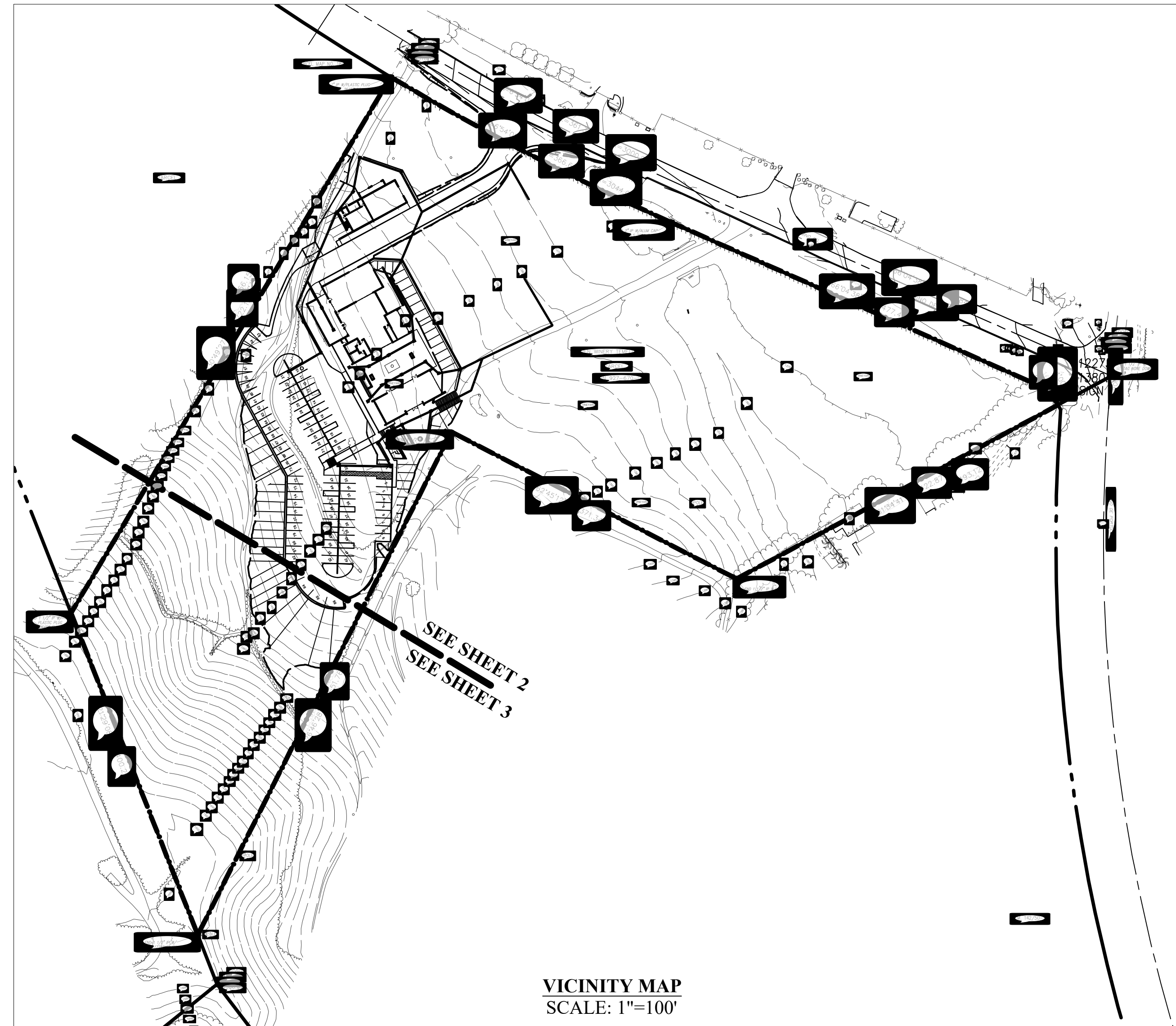
PRECISE GRADE

- A REGISTERED CIVIL ENGINEER SHALL SUBMIT TO THE BUILDING AND SAFETY DEPARTMENT WRITTEN FINAL CERTIFICATION OF COMPLETION OF GRADING IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO THE REQUEST OF PRECISE GRADING INSPECTION.

ADDITIONAL NOTES:

- NO WORK SHALL COMMENCE WITHIN THE ROAD RIGHT-OF-WAY (RW) PRIOR TO ISSUANCE OF AN ENCROACHMENT PERMIT BY THE TRANSPORTATION DEPARTMENT.
- THE ENGINEER OF RECORD HAS EVALUATED THE DRAINAGE AND HAS DETERMINED THAT THE DRAINAGE ACROSS THE PROPERTY LINE DOES NOT EXCEED THAT WHICH EXISTED PRIOR TO GRADING.
- THE ENGINEER OF RECORD WHO PREPARED AND SIGNED THE GRADING PLAN HAS VERIFIED THAT THE PROPOSED DRAINAGE SYSTEM IS CONSISTENT WITH THE NATURAL DRAINAGE PATTERN OF THE SITE AND WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.

THE ENGINEER WHO PREPARED AND SIGNED THIS GRADING PLAN HAS VERIFIED THAT ALL INFORMATION ON THE DRAWINGS IS CONSISTENT WITH THE STORM DRAIN AND STREET IMPROVEMENTS PLANS APPROVED OR CLEARED TO GRADE BY THE RIVERSIDE COUNTY FLOOD CONTROL DISTRICT AND/OR TRANSPORTATION DEPARTMENT AND APPROVED TENTATIVE TRACT MAP INCLUDING CONDITIONS OF APPROVAL.



VICINITY MAP
SCALE: 1"=100'

LEGAL DESCRIPTION:
IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, CALIFORNIA, PARCEL 3, OF PARCEL MAP 18439, AS SHOWN ON A MAP RECORDED IN BOOK 142, PAGES 50 AND 51 OF PARCEL MAPS.

SOURCE OF TOPOGRAPHY:
THE TOPOGRAPHY SHOWN WAS A PHOTOGRAMMETRIC AERIAL SURVEY DATED MARCH 4, 2022 PREPARED UNDER THE DIRECTION OF ROBIN B. HAMERS & ASSOCIATES, INC.

SITE ADDRESS:
41625 CAMINO DEL VINO,
TEMECULA, CA

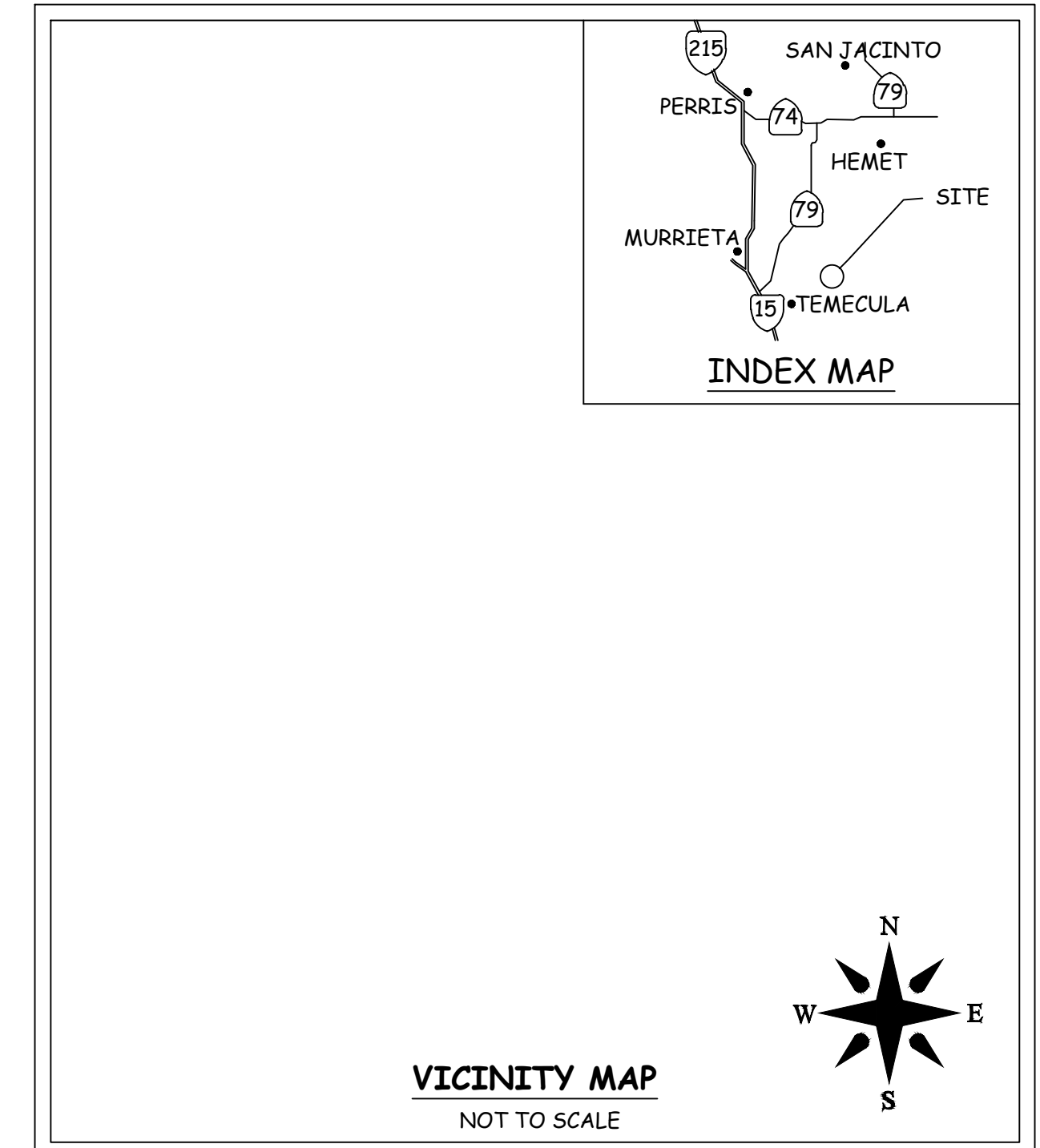
CIVIL ENGINEER:
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404 S. Live Oak Park Road
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APN:
927-670-009

OWNER:
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SOILS ENGINEER:
CW SOILS
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Murrieta, CA 92562
951-304-3935

EARTHWORK ESTIMATE		
CUT	8,100	CY
FILL	6,300	CY
SUBSIDENCE (0.2' ASSUMED)	750	CY
EXPORT	1,050	CY
DISTURBED AREA		
GRADING	2.33	AC
TOTAL	2.33	AC
IMPERVIOUS AREA		
ON-SITE PAVEMENT	1.07	AC
BUILDING FOOTPRINT	0.27	AC
WALKWAYS	0.29	AC
TOTAL	1.63	AC



TOWNSHIP 7 SOUTH, RANGE 1 WEST, SECTION 31
TOWNSHIP 8 SOUTH, RANGE 1 WEST, SECTION 6
TB MAP PAGE 960, GRIDS: E4, E5, F4, F5

LEGEND:

ABBREVIATIONS:

- AC ASPHALT CONCRETE
- BW BACK OF WALK
- CB CATCH BASIN
- CC CONCRETE
- CF CURB FACE
- CLF CHAIN LINK FENCE
- CO CLEAN OUT
- EC ELECTRICAL
- EG EDGE OF CONCRETE
- EM ELECTRIC METER
- E.P EDGE OF PAVEMENT
- EM ELECTRIC METER
- EP EDGE OF PAVEMENT
- FF FINISHED FLOOR ELEVATION
- FG FINISHED GRADE ELEVATION
- FH FIRE HYDRANT
- FL FLOW LINE ELEVATION
- FS FINISHED SURFACE ELEVATION
- G GAS
- GM GAS METER
- INV INVERT OF PIPE ELEVATION
- LF LINEAR FEET
- NG NATURAL GRADE
- PCC PORTLAND CEMENT CONCRETE
- PL PROPERTY LINE
- PM PARKING METER POST
- PP POWER POLE
- PB PULL BOX
- PCC PORTLAND CEMENT CONCRETE
- R/W RIGHT OF WAY
- S SEWER
- SCO SEWER CLEANOUT
- SDMH STORM DRAIN MANHOLE
- SMH SEWER MANHOLE
- ST.LT. STREET LIGHT
- SW SIDE WALK
- T TELEPHONE
- TC TOP OF CURB ELEVATION
- TEL.MH TELEPHONE MANHOLE
- TF TOP OF FOOTING ELEVATION
- TG TOP OF GRADE ELEVATION
- TOE TOE OF SLOPE
- TOP TOP OF SLOPE
- TW TOP OF WALL ELEVATION
- W WATER
- WM WATER METER
- WV WATER VALVE

SYMBOLS:

- (0.1) EXISTING ELEVATION
- EXISTING SPOT ELEVATION
- FIRE HYDRANT
- ELECTRIC
- GAS
- WATER
- SEWER
- TELEPHONE
- FENCE
- MONUMENTS
- TREE
- WALL
- PAVEMENT (AC OR CONC)
- CONCRETE BROW DITCH

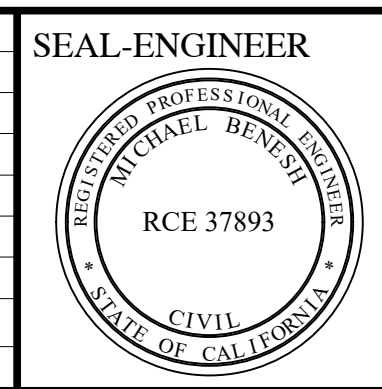
SHEET INDEX	
Sheet Number	Sheet Title
1	TITLE SHEET
2	PRELIMINARY GRADING PLAN
3	PRELIMINARY GRADING PLAN



NOTE:
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MARK BY	DATE	REVISIONS	APPR. DATE
ENGINEER			COUNTY



PREPARED BY:
ROBIN B. HAMERS & ASSOC., INC.
CIVIL ENGINEERS
234 E. 17TH STREET, SUITE 205
COSTA MESA, CALIFORNIA 92627
(949) 548-1192

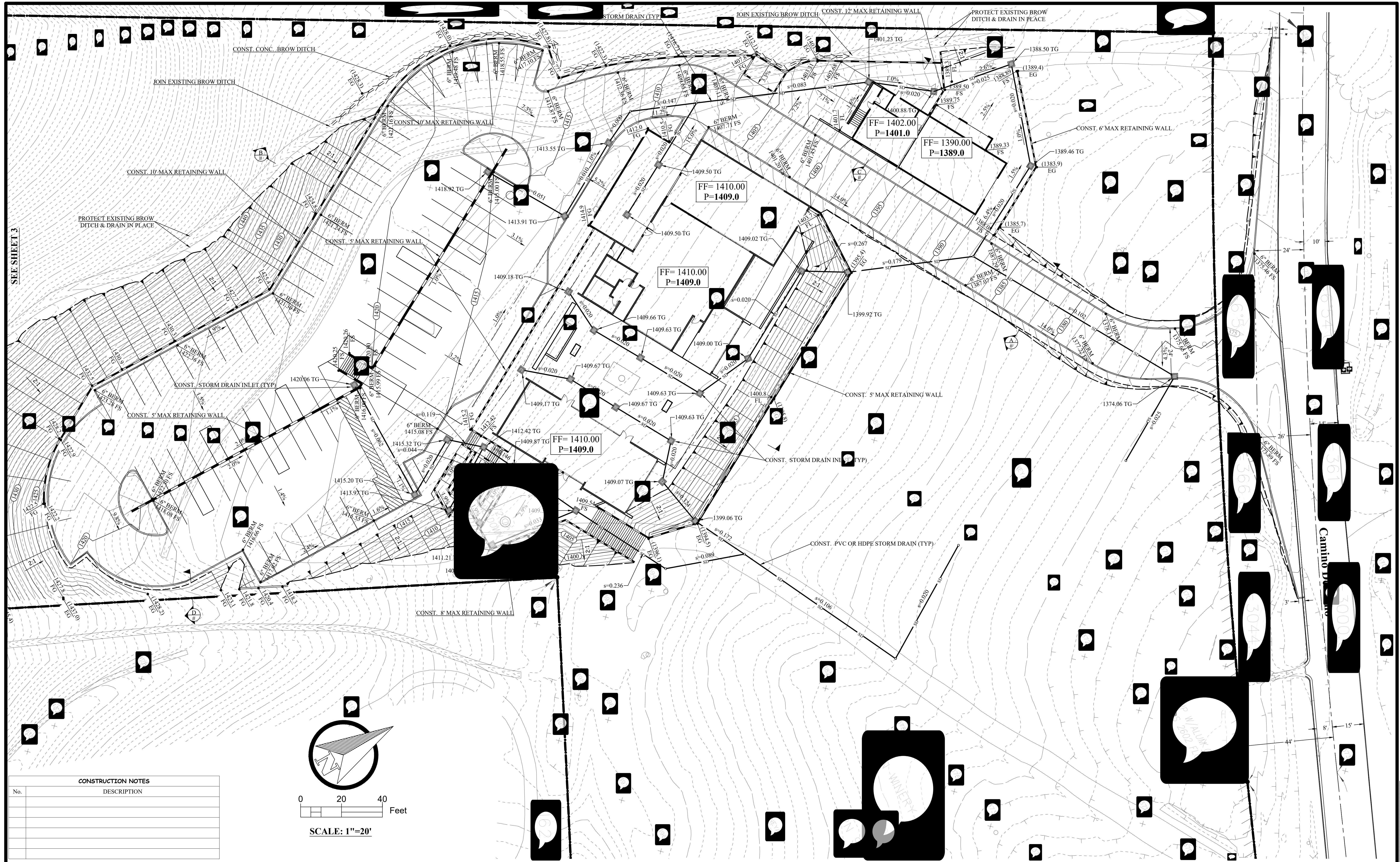
MICHAEL BENESH, R.C.E. 37893
DATE: 6/6/22

R/W CO BM: T-10-81 ELEV: 1342.94 (NAVD88)
DESCRIPTION: 2-1/2" BRASS DISK IN CONC CYLINDER 2.9' MILES N/E ON DE PORTOLA RD FROM THE INT OF ANZA RD, 56' E OF C.L. DE PORTOLA RD, 1.5' N/W OF POLE (NO NO.), 101' E OF PP (#2112481E), 7' N/E OF 1-1/2" TREE, FIBERGLASS WITNESS POST E OF MONUMENT.

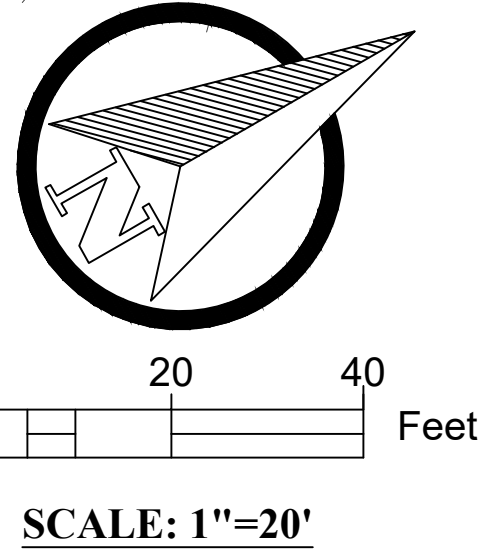
PPT IP
COUNTY OF RIVERSIDE
HAVEN WINERY
PRELIMINARY GRADING PLAN
TITLE SHEET
41625 CAMINO DEL VINO, TEMECULA, CA
FOR: W.O. COUNTY FILE NO.

SHEET NO. **1**
OF 3 SHEETS

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



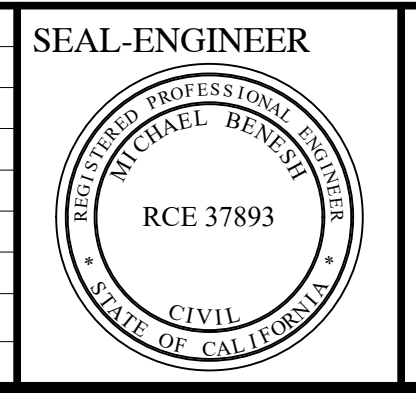
CONSTRUCTION NOTES	
No.	DESCRIPTION



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Michael Benesh
MICHAEL BENESH, R.C.E. 37893

6/6/22
DATE

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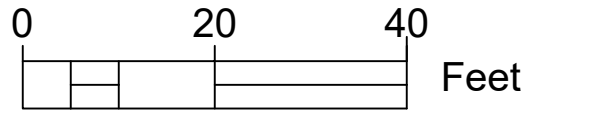
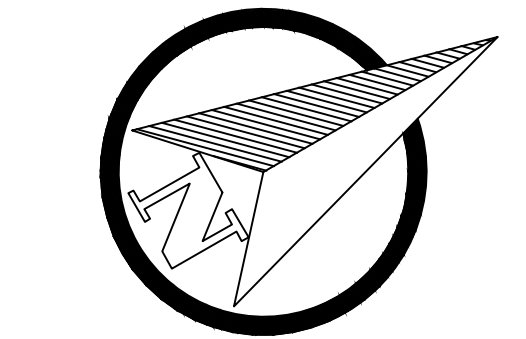
SCALE:

PPT IP
COUNTY OF RIVERSIDE
HAVEN WINERY
PRELIMINARY GRADING PLAN
41625 CAMINO DEL VINO, TEMECULA, CA

FOR: W.O. COUNTY FILE NO.

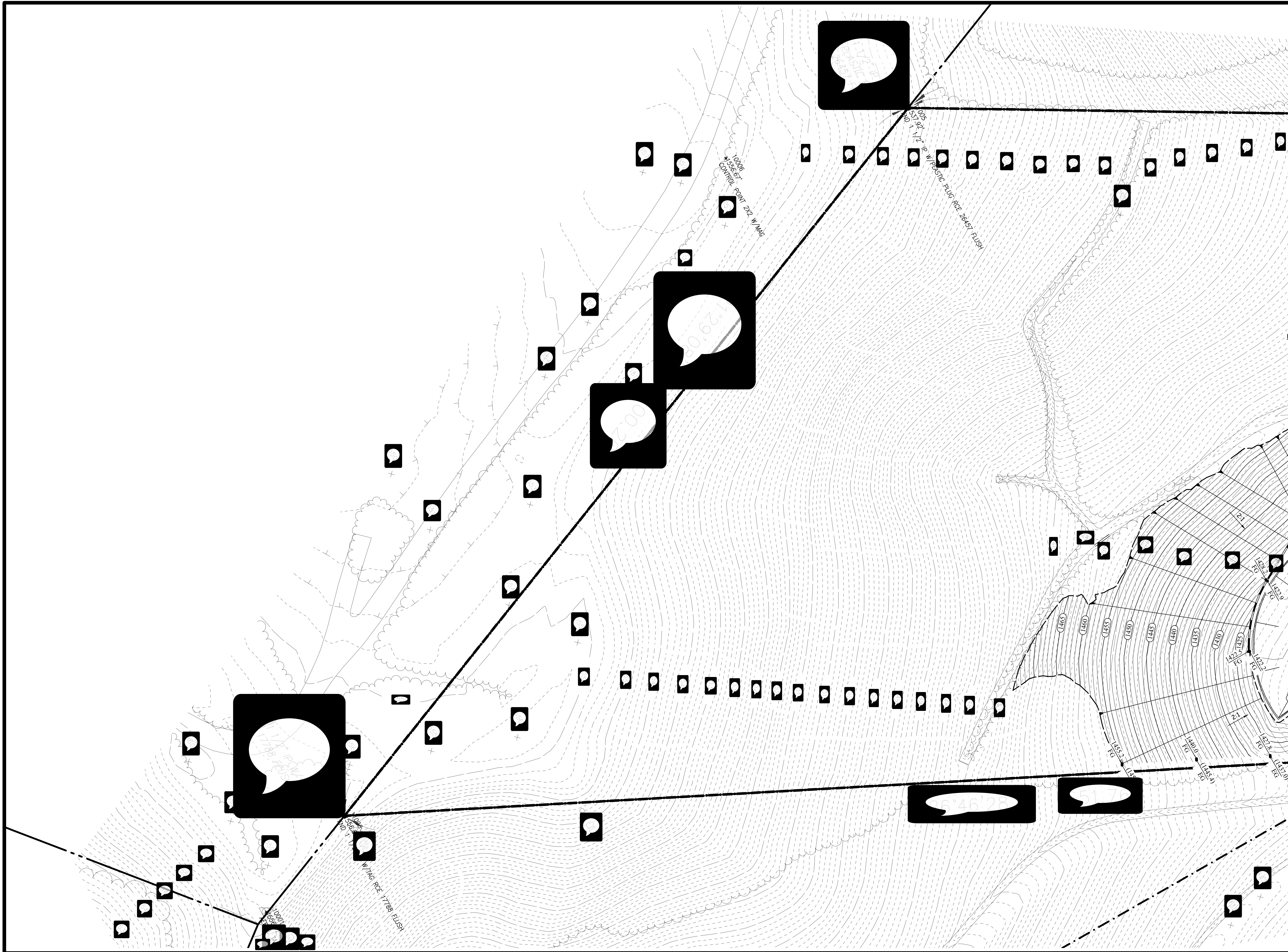
SHEET NO.
2
OF 3 SHEETS

CONSTRUCTION NOTES	
No.	DESCRIPTION



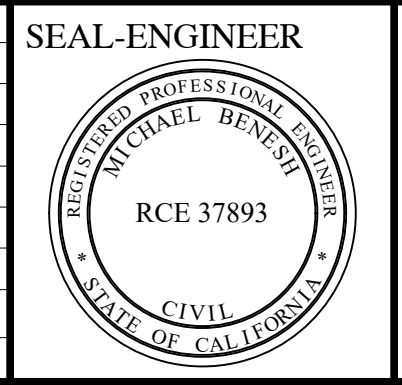
SCALE: 1"=20'

SEE SHEET 3



NOTE:
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MARK BY	DATE	REVISIONS	APPR.	DATE
ENGINEER			COUNTY	



PREPARED BY:
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APPROVED BY:
(Signature)
MICHAEL BENESH, R.C.E. 37893

DATE: 6/6/22

RIV CO BM: T-10-81 ELEV: 1342.94 (NAVD88)
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SCALE:

PPT IP
COUNTY OF RIVERSIDE
HAVEN WINERY
PRELIMINARY GRADING PLAN
41625 CAMINO DEL VINO, TEMECULA, CA

FOR: W.O. COUNTY FILE NO.

SHEET NO.
3
OF 3 SHEETS

0 1 2 3 4 INCHES

APPENDIX B

Reserve Assembly Analysis Results (Acres)

RESERVE ASSEMBLY ANALYSIS RESULTS (ACRES)

Cell Group	GIS Cell Size	Min Goal	Target Goal ARL	Max Goal	Property	Project Area	Existing ARL	Existing PQP	JPR - Avoidance	JPR - Development	JPR - Conservation	JPR - As Is	Existing Development	Potential ARL	RCWD Owned	Road RW	Target Goal ARL Need (+ exceeds or - shortfall)
C	1780.52	1068.31	1157.34	1246.36	4.10	0.41	0.00	117.67	0.46	76.41	32.43	12.50	399.03	459.17	621.64	57.41	-665.74

APPENDIX C

Plants Observed

The plants listed below were detected either on the Property/Project during field surveys conducted on April 18, May 10, June 1, and June 24, 2022. Nomenclature follows *The Jepson Online Interchange*. Introduced/Naturalized species are indicated with an (I).

COMMON NAME	SCIENTIFIC NAME
Amaranth Family	Amaranthaceae
Tumbleweed (I)	<i>Amaranthus albus</i>
Borage Family	Boraginaceae
common cryptantha	<i>Cryptantha intermedia</i>
common fiddleneck	<i>Amsinckia menziesii</i>
narrow-toothed pectocarya	<i>Pectocarya linearis</i> subsp. <i>ferocula</i>
Buckwheat Family	Polygonaceae
California buckwheat	<i>Eriogonum fasciculatum</i>
curly dock (I)	<i>Rumex crispus</i>
Cactus Family	Cactaceae
snake cholla	<i>Cylindropuntia californica</i>
Caltrop Family	Zygophyllaceae
puncture vine (I)	<i>Tribulus terrestris</i>
Fig-Marigold Family	Aizoaceae
freeway iceplant (I)	<i>Carpobrotus edulis</i>
Four O'Clock Family	Nyctaginaceae
wishbone bush	<i>Mirabilis laevis</i>
Geranium Family	Geraniaceae
long beaked filaree (I)	<i>Erodium botrys</i>
redstem filaree (I)	<i>Erodium cicutarium</i>
Goosefoot Family	Chenopodiaceae
lamb's quarters (I)	<i>Chenopodium album</i>
Russian thistle (I)	<i>Salsola tragus</i>
Grass Family	Poaceae
bearded Mediterranean grass (I)	<i>Schismus barbatus</i>
rabbitfoot grass (I)	<i>Polypogon monspeliensis</i>
red brome (I)	<i>Bromus rubens</i>
wall barley (I)	<i>Hordeum murinum</i>
Heliotrope Family	Heliotropiaceae
alkali heliotrope	<i>Heliotropium curassavicum</i> var. <i>oculatum</i>
Legume Family	Fabaceae
deerweed	<i>Acmispon glaber</i>
yellow sweetclover (I)	<i>Melilotus officinalis</i>
Mallow Family	Malvaceae
cheeseweed (I)	<i>Malva parviflora</i>
Morning-Glory Family	Convolvulaceae
chaparral dodder	<i>Cuscuta californica</i>
Mustard Family	Brassicaceae
London rocket (I)	<i>Sisymbrium irio</i>
shortpod mustard (I)	<i>Hirschfeldia incana</i>
Myrsine Family	Myrsinaceae
scarlet pimpernel (I)	<i>Lysimachia arvensis</i>
Myrtle Family	Myrtaceae
blue gum (I)	<i>Eucalyptus globulus</i>

COMMON NAME	SCIENTIFIC NAME
Nettle Family	Urticaceae
dwarf nettle (I)	<i>Urtica urens</i>
Nightshade Family	Solanaceae
jimson weed	<i>Datura wrightii</i>
Plantain Family	Plantaginaceae
chaparral beardtongue	<i>Keckiella antirrhinoides</i>
Spurge Family	Euphorbiaceae
doveweed	<i>Croton setiger</i>
rattlesnake sandmat	<i>Euphorbia albomarginata</i>
spotted spurge (I)	<i>Euphorbia maculata</i>
Sunflower Family	Asteraceae
California cudweed	<i>Pseudognaphalium californicum</i>
California sagebrush	<i>Artemisia californica</i>
cocklebur	<i>Xanthium strumarium</i>
common sandaster	<i>Corethrogyne filaginifolia</i>
common sow thistle (I)	<i>Sonchus oleraceus</i>
common sunflower	<i>Helianthus annuus</i>
golden yarrow	<i>Eriophyllum confertiflorum</i>
hairy horsebrush	<i>Tetradymia comosa</i>
Canada horseweed	<i>Erigeron canadensis</i>
telegraph weed	<i>Heterotheca grandiflora</i>
toocalote (I)	<i>Centaurea melitensis</i>
western ragweed	<i>Ambrosia psilostachya</i>

APPENDIX D

Wildlife Observed

Birds

The bird species listed below were detected either on, above, or near the Property/Project during field surveys conducted on April 18, May 10, June 1, and June 24, 2022. The list below is presented in alphabetic order. Nomenclature for the Family (i.e., Falconidae), Common Name, and Scientific Name follow the American Ornithological Society's *Checklist of North and Middle American Birds*. Introduced species are indicated with an (I).

COMMON NAME	SCIENTIFIC NAME
Caracaras and Falcons	Falconidae
American Kestrel	<i>Falco sparverius</i>
Crows and Jays	Corvidae
Common Raven	<i>Corvus corax</i>
Cuckoos, Roadrunners, and Anis	Cuculidae
Greater Roadrunner	<i>Geococcyx californianus</i>
Finches and Allies	Fringillidae
House Finch	<i>Haemorhous mexicanus</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
Gnatcatchers and Gnatwrens	Poliopitidae
California Gnatcatcher	<i>Poliopitila californica</i>
Hawks, Kites, Eagles, and Allies	Accipitridae
Red-shouldered Hawk	<i>Buteo lineatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Hummingbirds	Trochilidae
Anna's Hummingbird	<i>Calypte anna</i>
Costa's Hummingbird	<i>Calypte costae</i>
New World Quail	Odontophoridae
California Quail	<i>Callipepla californica</i>
New World Sparrows	Passerellidae
California Towhee	<i>Melospiza crissalis</i>
Spotted Towhee	<i>Pipilo maculatus</i>
New World Vultures	Cathartidae
Turkey Vulture	<i>Cathartes aura</i>
Pigeons and Doves	Columbidae
Mourning Dove	<i>Zenaidura macroura</i>
Starlings	Sturnidae
European Starling (I)	<i>Sturnus vulgaris</i>
Swallows	Hirundinidae
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Thrushes	Turdidae
Western Bluebird	<i>Sialia mexicana</i>
Tyrant Flycatchers	Tyrannidae
Cassin's Kingbird	<i>Tyrannus vociferans</i>
Woodpeckers and Allies	Picidae
Nuttall's Woodpecker	<i>Dryobates nuttallii</i>
Wrens	Troglodytidae
Bewick's Wren	<i>Thryomanes bewickii</i>

Mammals

The mammals listed below were detected through diagnostic sign or physical sightings on the Property/Project during field surveys conducted on April 18, May 10, June 1, and June 24, 2022. The list below is presented in alphabetic order. Nomenclature for the Family (i.e., Canidae), Common Name, and Scientific Name follow *Wilson & Reeder's Mammal Species of the World*.

COMMON NAME	SCIENTIFIC NAME
Coyotes, Dogs, Foxes, Jackals, and Wolves	Canidae
coyote	<i>Canis latrans</i>
Ground Squirrels	Sciuridae
California ground squirrel	<i>Spermophilus beecheyi</i>
Hares and Rabbits	Leporidae
black-tailed jackrabbit	<i>Lepus californicus</i>
desert cottontail	<i>Sylvilagus audubonii</i>
Pocket Gophers	Geomyidae
Botta's pocket gopher	<i>Thomomys bottae</i>

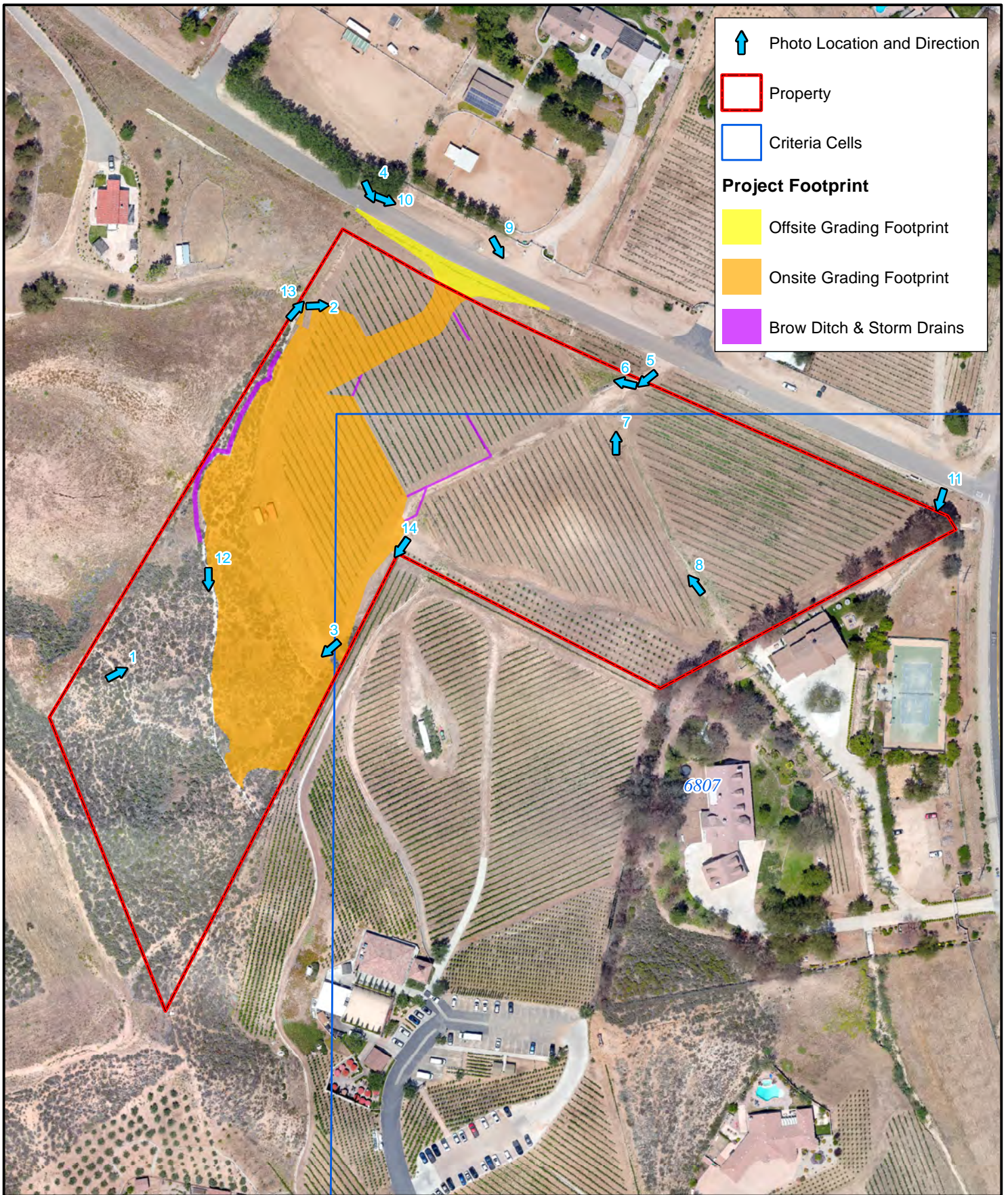
Herpetofauna




The herpetofauna listed below were detected through diagnostic sign or physical sightings either on the Property/Project during field surveys conducted on April 18, May 10, June 1, and June 24, 2022. The list below is presented in alphabetic order. Nomenclature for the Family (i.e., Phrynosomatidae), Common Name, and Scientific Name follow the Society for the Study of Amphibian and Reptiles (SSAR) *Standard English and Scientific Names*.

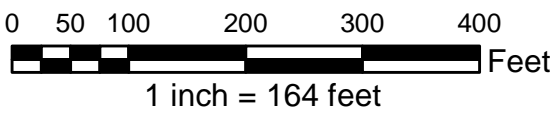
COMMON NAME	SCIENTIFIC NAME
Zebra-tailed, Earless, Fringe-toed, Spiny, Tree, Side-blotched, and Horned Lizards	Phrynosomatidae
Western Side-blotched Lizard	<i>Uta stansburiana elegans</i>

APPENDIX E

Assessment Photographs



 Photo Location and Direction
 Property
 Criteria Cells
Project Footprint
 Offsite Grading Footprint
 Onsite Grading Footprint
 Brow Ditch & Storm Drains



**Appendix E
Assessment Photographs
Key Map**



PHOTO 1: A northeasterly view of the Property from the southern portion.



PHOTO 2: A view of the vineyard.



PHOTO 3: A southerly view depicting the California sagebrush-California buckwheat scrub.



PHOTO 4: The area of the proposed offsite ingress/egress driveway.



PHOTO 5: The onsite culvert in Feature A at a dirt road crossing.



PHOTO 6: An upstream view of Feature A.



PHOTO 7: The downstream side of the dirt road depicting the concrete rip/rap and encased culverts.



PHOTO 8: An upstream view of Feature A from the downstream end.



PHOTO 9: Three culverts north of Camino del Vino that convey Feature A storm flows onto the Property.



PHOTO 10: Feature A where it exited a horse pasture, then paralleled Camino del Vino before entering the three culverts.



PHOTO 11: Feature B is depicted behind the blue gum trees. This also depicts the unsuitable NEPS and CAPS habitat.



PHOTO 12: A portion of one of the brow ditches installed around 2007 to collect sheetflow to protect the vineyard and control erosion.



PHOTO 13: The culvert at the terminus of the existing brow ditch system where stormflow was conveyed underground via pipe to Feature A.



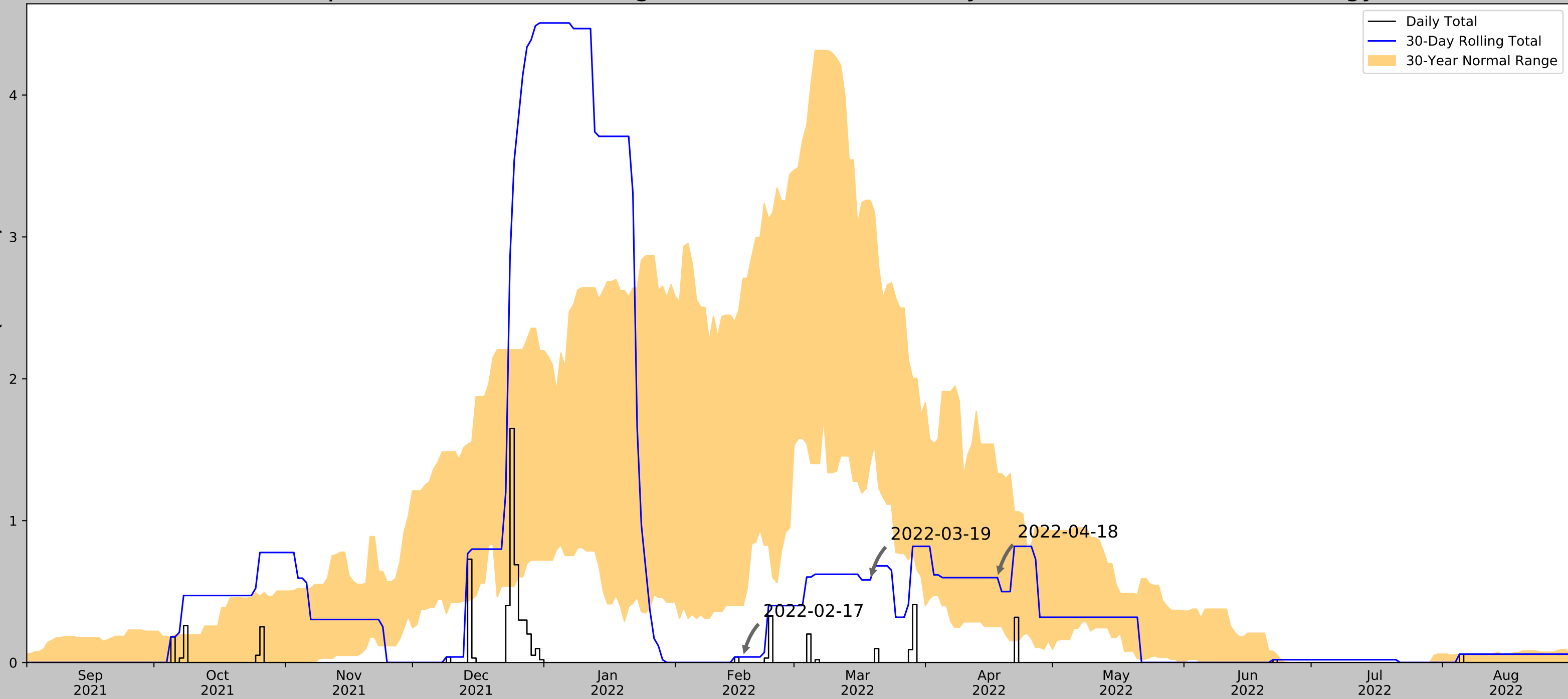
PHOTO 14: A drain in the central portion of the Site that conveyed stormflow underground via pipe to Feature A.

APPENDIX F

Wetlands Climate Tables

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	33.520570, -117.022624
Observation Date	2022-04-18
Elevation (ft)	1402.64
Drought Index (PDSI)	Extreme drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-04-18	0.25315	1.331102	0.598425	Normal	2	3	6
2022-03-19	1.410236	3.258268	0.582677	Dry	1	2	2
2022-02-17	0.401181	2.708662	0.03937	Dry	1	1	1
Result							Drier than Normal - 9

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
SAN JACINTO	33.7964, -116.9753	1524.934	19.251	122.294	11.017	11015	90
FALLBROOK 6.5 NE	33.4363, -117.1603	1376.969	9.841	25.671	4.681	18	0
SUN CITY	33.7156, -117.19	1419.948	16.563	17.308	7.74	163	0
FALLBROOK 5 NE	33.4392, -117.1903	1140.092	11.18	262.548	7.966	14	0
ELSINORE	33.6861, -117.3458	1268.045	21.833	134.595	12.764	72	0
HEMET	33.7381, -116.8939	1811.024	16.755	408.384	14.382	71	0

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers