

# Ocean Breeze Ranch Project

## Conceptual Upland Restoration Plan

PDS2016-TM-5615  
PDS2016-MUP-16-012  
PDS2016-MUP-16-013

August 7, 2019 | OBR-01

*Prepared for:*

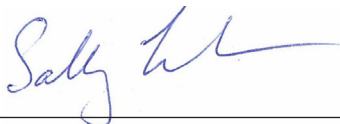
**County of San Diego**  
**Planning and Development Services**  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

*Project Proponent:*

**Ocean Breeze Ranch, LLC**  
1550 South Coast Highway, Suite 201  
Laguna Beach, CA 92561

*Prepared by:*

**HELIX Environmental Planning, Inc.**  
7578 El Cajon Boulevard  
La Mesa, CA 91942



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**Sally Trnka**  
County-approved Revegetation  
Planning Consultant

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# TABLE OF CONTENTS

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<b>Section</b>	<b>Page</b>
1.0 INTRODUCTION .....	1
2.0 PROJECT DESCRIPTION .....	1
2.1 Responsible Parties .....	1
2.2 Project Location .....	1
2.3 Project Summary .....	2
2.3.1 Current Environmental Setting and Site Conditions .....	2
2.3.2 Project Description .....	3
2.3.3 Topography and Soils .....	3
2.3.4 Vegetation Communities .....	4
2.3.5 Wildlife .....	5
2.3.6 Sensitive Species .....	6
2.3.7 Project Impacts and Required Mitigation .....	6
3.0 GOALS OF COMPENSATORY MITIGATION .....	9
3.1 Responsibilities .....	9
3.1.1 Project Proponent .....	9
3.1.2 County of San Diego .....	9
3.1.3 Compensatory Mitigation Project Designer .....	9
3.1.4 Installation Contractor .....	9
3.1.5 Restoration Specialist .....	10
3.1.6 Maintenance Contractor .....	10
3.1.7 Nursery (Seed/Plant Procurement) .....	10
3.2 Types and Areas of Habitat to be Restored or Enhanced .....	11
3.2.1 DCSS Restoration .....	11
3.2.2 Active DCSS Enhancement .....	11
3.3 Functions and Values .....	12
3.4 Time Lapse .....	12
3.5 Cost .....	12
4.0 DESCRIPTION OF THE PROPOSED COMPENSATORY MITIGATION SITE .....	13
4.1 Site Selection .....	13
4.2 Location and Size of Compensatory Mitigation Site .....	13
4.3 Functions and Values .....	13
4.4 Present and Proposed Uses .....	14
4.5 Reference Site .....	14
5.0 IMPLEMENTATION PLAN .....	14
5.1 Rationale for Expecting Implementation Success .....	14
5.2 Financial Assurances .....	15
5.3 Schedule .....	15



## TABLE OF CONTENTS (cont.)

---

<b><u>Section</u></b>	<b><u>Page</u></b>
5.4 Site Preparation .....	15
5.4.1 Cactus Salvage .....	15
5.4.2 Mulch Salvage .....	15
5.4.3 Initial Weed Control and Grading .....	15
5.4.4 Soil Amendments/Mulch Installation .....	16
5.5 Planting Plan .....	16
5.5.1 DCSS Restoration .....	17
5.5.2 DCSS Enhancement.....	19
5.6 Irrigation Plan.....	19
5.7 Erosion Control .....	20
5.8 Fencing and Signage .....	20
5.9 Habitat Features .....	20
6.0 MAINTENANCE PLAN .....	20
6.1 Maintenance Activities .....	20
6.1.1 Irrigation .....	21
6.1.2 Non-native Plant Control .....	21
6.1.3 Seed Installation .....	21
6.1.4 Pruning.....	22
6.1.5 Trash .....	22
6.1.6 Pests.....	22
6.1.7 Fertilization .....	22
6.1.8 Sensitive Species Issues .....	22
6.1.9 Remedial Installation .....	22
6.2 Schedule.....	22
6.2.1 Maintenance Schedule .....	22
6.2.2 Irrigation Schedule.....	23
7.0 MONITORING PLAN .....	24
7.1 Performance Standards .....	24
7.1.1 Survivorship .....	24
7.1.2 Native Cover .....	24
7.1.3 Native Plant Recruitment.....	25
7.1.4 Non-Native Cover .....	25
7.1.5 Target Invasive Cover.....	25
7.1.6 Irrigation .....	25
7.2 Target Functions and Values.....	25
7.3 Target Acreages .....	25
7.4 Monitoring Methods.....	25
7.4.1 Site Preparation/Installation Monitoring .....	26
7.4.2 Maintenance Monitoring.....	26
7.4.3 Annual Technical Monitoring.....	26

## TABLE OF CONTENTS (cont.)

---

<b><u>Section</u></b>	<b><u>Page</u></b>
7.5 Monitoring Schedule.....	27
7.5.1 Site Preparation/Installation Monitoring .....	27
7.5.2 Maintenance Monitoring.....	27
7.5.3 Annual Technical Monitoring.....	28
7.6 Monitoring Reports.....	28
8.0 COMPLETION OF COMPENSATORY MITIGATION .....	28
9.0 CONTINGENCY MEASURES.....	28
9.1 Initiating Contingency Measures .....	28
9.2 Alternative Locations for Contingency Compensatory Mitigation .....	29
9.3 Funding .....	29
10.0 LIST OF PREPARERS .....	30
11.0 REFERENCES.....	31

### LIST OF FIGURES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Follows Page</u></b>
1	Regional Location.....	2
2	Project Vicinity (Aerial Photograph) .....	2
3	Project Vicinity (USGS Topography).....	2
4	Soils .....	4
5	Vegetation and Sensitive Resources/Impacts.....	6
6	Biological Open Space and Conceptual Restoration/Enhancement Areas.....	8

## TABLE OF CONTENTS (cont.)

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### LIST OF TABLES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
1	Soil Types Mapped On Site .....	4
2	Existing Vegetation Communities/Land Use Type Occurring On Site.....	5
3	Project Impacts to Vegetation Communities/Habitat Types .....	7
4	Acreages of Restoration and Enhancement Areas .....	11
5	Diegan Coastal Sage Scrub Restoration Plant Palette .....	18
6	Diegan Coastal Sage Scrub Areas Active Enhancement Seed Palette .....	19
7	Maintenance Schedule .....	23
8	Success Criteria Milestones for DCSS Restoration (Area 3) .....	24
9	Maintenance Monitoring Schedule of DCSS Restoration and Active Enhancement .....	27

## ACRONYMS AND ABBREVIATIONS

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amsl	above mean sea level
APN	Accessor's Parcel Number
CAGN	coastal California gnatcatcher
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
County	County of San Diego
DCSS	Diegan coastal sage scrub
GPS	global positioning system
ft	feet
HELIX	HELIX Environmental Planning, Inc.
I-	Interstate
LLC	limited liability corporation
MSCP	Multiple Species Conservation Program
NC	North County
NRCS	Natural Resource Conservation Service
PAMA	Pre-Approved Mitigation Area
POC	Point of Connection
SR	State Route
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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# 1.0 INTRODUCTION

This report presents a restoration plan for proposed impacts to sensitive upland habitat resulting from the Ocean Breeze Ranch Project (project) located in the unincorporated community of Bonsall, in San Diego County, California. Included in this document is an implementation, maintenance, and monitoring plan for on-site restoration of approximately 35.0 acres of Diegan coastal sage scrub (DCSS) and active enhancement of approximately 23.3 acres of DCSS habitat.

Although the project has sufficient upland preservation on site to meet the required habitat mitigation ratios for impacts to sensitive uplands, the Wildlife Agencies (U.S. Fish and Wildlife Service [USFWS] and California Department of Fish and Wildlife [CDFW]) and County of San Diego (County) have requested additional upland restoration and enhancement to further offset project impacts. Thus, the goal of this upland restoration plan is to provide additional compensation for project impacts to DCSS above and beyond the proposed on-site preservation of 467.8 acres of DCSS, while providing suitable breeding habitat for coastal California gnatcatcher (*Poliophtila californica californica*; CAGN) and providing potentially suitable aestivation and foraging habitat for arroyo toad (*Anaxyrus californicus*) and western spadefoot toad (*Spea hammondi*). Within five years, the restored habitat is expected to be approaching the functions and value of existing DCSS habitat located on site and enhanced habitat is expected to be on a trajectory towards similar quality habitat. Nomenclature used in this report follows Oberbauer (2008) for vegetation communities, Baldwin (2012) and Calflora (2018) for plants, Society for the Study of Amphibians and Reptiles (2017) for reptiles and amphibians, and American Ornithological Society (2018) for birds.

## 2.0 PROJECT DESCRIPTION

### 2.1 RESPONSIBLE PARTIES

Ocean Breeze Ranch, LLC (or its successor in interest) will be responsible for financing the installation and five-year maintenance and monitoring of the habitat restoration/enhancement proposed in this plan. Contact information is provided below:

Contact: Jim Conrad, Owner's Representative  
Ocean Breeze Ranch, LLC  
1550 South Coast Highway, Suite 201  
Laguna Beach, CA 92561  
949-233-8625

### 2.2 PROJECT LOCATION

The approximately 1,402.5-acre project site is located west of Interstate (I-)15 and south of State Route (SR) 76, in the unincorporated community of Bonsall in north San Diego County, California (Figure 1). More specifically, the site occurs immediately north of portions of West Lilac Road and south of the San Luis Rey River, at 5820 West Lilac Rd., Bonsall, California (Figure 2). The site is depicted within Sections 13, 14, 15, 20, 21, 22, and 23 of Township 10 South, Range 3 West of the Bonsall, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figure 3). Primary access to the site is provided by West Lilac Road. The project site occurs within the following twelve Assessor's Parcel

Numbers (APNs) 124-150-3400, 124-150-3500, 124-150-2800, 125-131-4800, 125-131-4900, 125-131-5400, 125-080-2100, 126-060-7800, 127-191-2000, 127-230-5900, 127-271-0100, and 127-271-0200.

The project site occurs within the boundaries of the Draft North County (NC) Multiple Species Conservation Program (MSCP) Plan (herein referred to as NC MSCP Plan), which has not yet been approved or adopted. In May of 2014, the County, USFWS and CDFW entered into a Planning Agreement for the Draft NC MSCP Plan (County 2008, amended 2014), which defines the geographic scope of the Planning Area, identifies preliminary conservation objectives, ensures coordination between the Wildlife Agencies (USFWS and CDFW), and establishes a process to review interim development within the Planning Area to help achieve the preliminary conservation objectives and preserve options for establishing a viable reserve system or equivalent long-term conservation measures. Within the Draft NC MSCP Plan, portions of the site occur within areas identified as Pre-Approved Mitigation Area (PAMA; HELIX 2019a).

## **2.3 PROJECT SUMMARY**

### **2.3.1 Current Environmental Setting and Site Conditions**

The project site is generally located within the coastal foothills ecoregion of north San Diego County. It occurs within the northeastern portion of the Bonsall Community Planning Area. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters. Mean annual precipitation is between 14 and 18 inches, and the mean annual temperature is between 60 and 62 degrees Fahrenheit. The frost-free season is 260 to 300 days.

Currently, approximately 659.0 acres (47 percent) of the site is in active agricultural or equestrian use, or is otherwise disturbed by past land uses, including 265.9 acres of row crops, 102.8 acres of avocado orchard, 32.1 acres of fallow orchard, 178.3 acres of horse pasture, and 79.9 acres of disturbed habitat and developed lands containing a combination of horse corrals, barns and other outbuildings, farm worker housing, staging areas, roads, and sparsely vegetated areas that retain a soil substrate.

Undeveloped areas are concentrated in the eastern and southwestern portions of the site and consist primarily of hills supporting native scrub communities. The dominant habitat type present on site is Diegan coastal sage scrub, which covers approximately 509.2 acres (36 percent) of the site. In the context of the Draft NC MSCP Plan, the majority of the project site (1,176.9 of 1,402.5 acres, or 84 percent) occurs within areas identified as PAMA within the Lower San Luis Rey River Linkage, as identified in the draft plan.

A large portion of the project site was affected by the December 2017 Lilac Fire, which burned habitat in the eastern hills and traveled westward across the site, affecting native wetland and upland habitats, non-native grassland, and agricultural lands, including orchard. Off-site habitat along the San Luis Rey River also burned in the fire. On-site pastures, which are irrigated, did not burn in the fire. In addition, most of the eastern hills were also burned in the May 2014 Highway Fire (California Department of Forestry and Fire Protection [CAL FIRE] 2016).

Surrounding land uses generally include the San Luis Rey River to the north, with SR 76 and rural residential development occurring to the north side of the river, I-15 and rural residential development to the east, and rural residential development to the south and west. In addition, a California

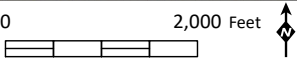


Source: Base Map Layers (SanGIS, 2016)



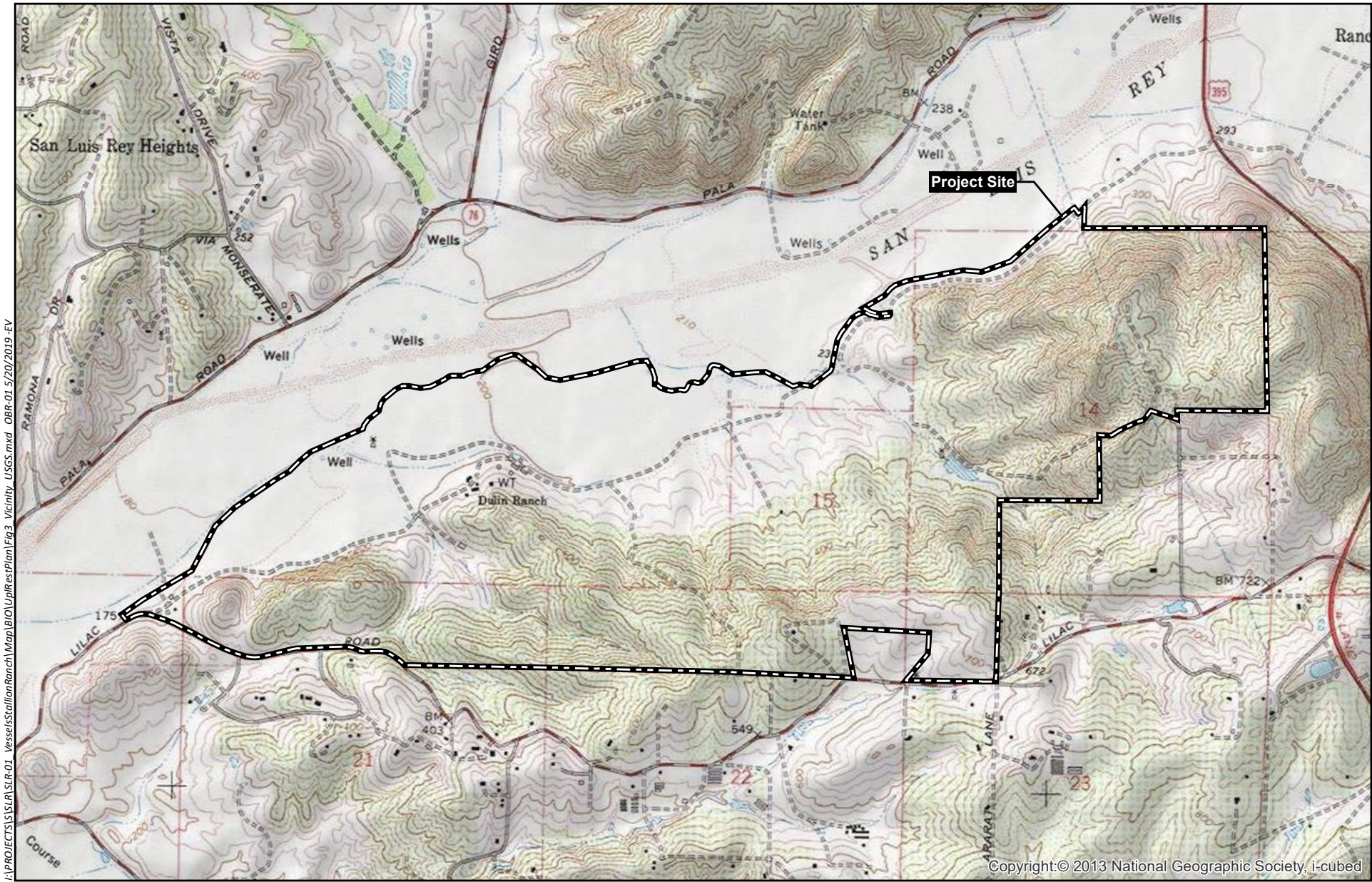


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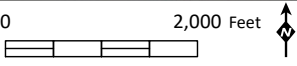


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Department of Transportation (Caltrans) mitigation site is located along the northern project site boundary, extending to the San Luis Rey River.

### **2.3.2 Project Description**

The proposed project consists of a 396-lot single-family residential community, related roadway and utility infrastructure improvements, associated park and recreational uses, open space, and a separate, privately-owned and operated equestrian facility. The project's total on-site disturbance area is approximately 326.4 acres, including 19.4 acres of existing equestrian improved areas (i.e., barns, stables, exercise and veterinary facilities, and a small office). The residential development is divided into three distinct planning areas, with conventional lot sizes in Planning Areas 1 and 2 located in the western portion of the site, and larger lots in Planning Area 3 located in the eastern site area.

Proposed residential development in the western site area (Planning Areas 1 and 2) also includes water/wastewater systems and one sewer pump station, with associated connections to existing adjacent (off-site) Rainbow Municipal Water District facilities. Additional uses in the western residential areas include seven park sites, as well as trail segments that extend into the project site and connect to the future off-site San Luis Rey River Trail alignment (which will be constructed by the County as a separate project). Proposed residential development in the eastern portion (Planning Area 3) includes a gated neighborhood consisting of 13 lots with sizes ranging from approximately five to 7.5 acres, as well as one 19-acre estate parcel. In addition to residential development in Planning Areas 1, 2, and 3, a 24.2-acre single large estate parcel (hillside estate parcel) is proposed on land northeast of the Sullivan Middle School site, with access from West Lilac Road.

The proposed project design includes a network of internal access roads within the described disturbance area, including public streets in the western residential sites and private/gated roadways in the eastern residential sites. Connections to existing off-site roadways would include two connections to West Lilac Road from the western (public) access roads, one gated (private) connection to Dulin Road from Planning Area 3 at the northeastern site boundary, and one connection to West Lilac Road from the hillside estate parcel adjacent to Sullivan Middle School.

Nearly 60 percent of the project site (832.7 acres) will be preserved in a biological open space easement, which will protect these lands in perpetuity and will restrict future uses to preserve their biological value. In addition, existing equestrian pastures that are outside the residential development footprint will continue in use as pastures as part of the ongoing equestrian operations, and a limited use easement will be recorded over these areas specifying restrictions on future usage to retain the current biological value of the pastures.

### **2.3.3 Topography and Soils**

The project site includes a variety of terrain, from relatively flat alluvial plain near the river along the northern site boundary, to ridges and hillsides near the site's southern boundary. Elevations on the site range from approximately 190 feet (ft) above mean sea level (amsl) to 960 ft amsl (HELIX 2019a). Elevation generally increases from north to south across the site, with the lowest elevations occurring in the westernmost pastures, and the highest elevations in the easternmost hills. The site is part of the San Luis Rey River valley, which generally trends northeast to southwest across the site, surrounded by hills to the east and south, and extends off-site to the north on the opposite side of SR 76. On-site ephemeral and intermittent tributaries convey runoff in a generally northern direction toward the San Luis Rey



River, which is off site, although these tributaries terminate prior to reaching the river. The San Luis Rey River extends from its headwaters above Warner Springs (east of the site) to the Pacific Ocean, approximately 13 miles downstream of the site.

Twelve soil series, which comprise 28 soil types, have been mapped on site (NRCS 2016; Table 1; Figure 4), with the majority classified as sandy loams. Those soils types covering the most area on site include those in the Cieneba series (437.6 acres), Vista series (201.1 acres), and Fallbrook series (229.1 acres).

**Table 1**  
**SOIL TYPES MAPPED ON SITE<sup>1</sup>**

Map Symbol	Map Unit Name	Acreage <sup>2</sup>
BIC	Bonsall sandy loam, 2 to 9 percent slopes	24.6
BID2	Bonsall sandy loam, 9 to 15 percent slopes, eroded	7.3
CID2	Cieneba coarse sandy loam, 5 to 15 percent slopes, eroded	6.5
CIG2	Cieneba coarse sandy loam, 30 to 65 percent slopes, eroded	143.0
CmE2	Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, eroded	31.0
CmrG	Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes	257.1
FaC	Fallbrook sandy loam, 5 to 9 percent slopes	34.5
FaD2	Fallbrook sandy loam, 9 to 15 percent slopes, eroded	18.6
FaE2	Fallbrook sandy loam, 15 to 30 percent slopes, eroded	91.3
FaE3	Fallbrook sandy loam, 9 to 30 percent slopes, severely eroded	6.7
FvD	Fallbrook-Vista sandy loams, 9 to 15 percent slopes	30.8
FvE	Fallbrook-Vista sandy loams, 15 to 30 percent slopes	47.2
GoA	Grangeville fine sandy loam, 0 to 2 percent slopes	14.0
PeA	Placentia sandy loam, 0 to 2 percent slopes	17.0
PeC	Placentia sandy loam, 2 to 9 percent slopes	110.4
PeD2	Placentia sandy loam, 9 to 15 percent slopes, eroded	6.6
RaC	Ramona sandy loam, 5 to 9 percent slopes	14.0
RaD2	Ramona sandy loam, 9 to 15 percent slopes, eroded	28.1
RcD	Ramona gravelly sandy loam, 9 to 15 percent slopes	2.8
Rm	Riverwash	33.1
StG	Steep gullied land	31.2
TuB	Tujunga sand, 0 to 5 percent slopes	135.8
VaA	Visalia sandy loam, 0 to 2 percent slopes	96.0
VaB	Visalia sandy loam, 2 to 5 percent slopes	13.9
VsD	Vista coarse sandy loam, 9 to 15 percent slopes	10.7
VsE	Vista coarse sandy loam, 15 to 30 percent slopes	142.0
VsE2	Vista coarse sandy loam, 15 to 30 percent slopes, eroded	13.9
VsG	Vista coarse sandy loam, 30 to 65 percent slopes	34.5
<b>TOTAL</b>		<b>1,402.5</b>

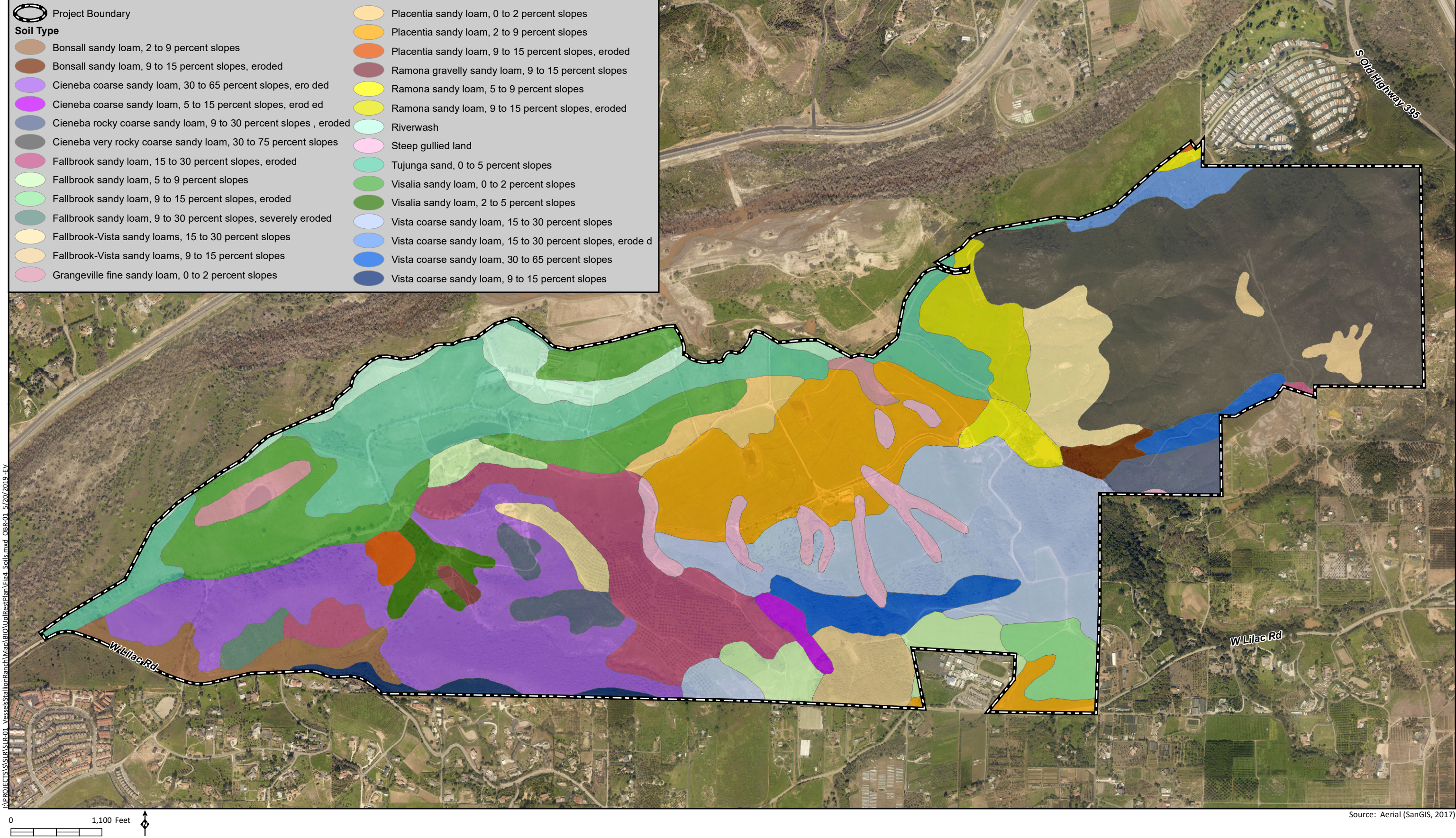
<sup>1</sup> Pursuant to the NRCS Web Soil Survey (2016).

<sup>2</sup> Rounded to the nearest tenth acre.

### 2.3.4 Vegetation Communities

Twenty-two vegetation communities/land use types occur on the project site (Table 2). The numeric codes in parentheses following each community/land use type name are from the Holland classification system (Holland 1986) and as added to by Oberbauer (2008) as presented in the County's Biology Guidelines (County 2010).







**Table 2**  
**EXISTING VEGETATION COMMUNITIES/LAND USE TYPE OCCURRING ON SITE**

<b>Vegetation Community<sup>1</sup></b>	<b>Acre(s)<sup>2</sup></b>
Southern Cottonwood-willow Riparian Forest (61330) <sup>3</sup>	18.18
Southern Willow Scrub (63320) <sup>3</sup>	3.03
Mule Fat Scrub (63310) <sup>3</sup>	1.30
Freshwater Marsh (52400)	0.98
Herbaceous Wetland (52510) <sup>3</sup>	0.24
Tamarisk Scrub (63810) <sup>3</sup>	0.09
Freshwater Pond/Open Water (64140)	1.16
Coast Live Oak Woodland (71160) <sup>3</sup>	29.2
Diegan Coastal Sage Scrub – including disturbed (32500) <sup>3</sup>	509.2
Flat-topped Buckwheat Scrub (32800) <sup>3</sup>	1.4
Coastal Sage-chaparral Scrub (37G00) <sup>3</sup>	31.5
Southern Mixed Chaparral (37120) <sup>3</sup>	31.8
Non-Native Grassland (42200) <sup>3</sup>	104.2
Extensive Agriculture: Pasture (18310)	178.3
Extensive Agriculture: Row Crops (18320) <sup>3</sup>	265.9
Agricultural Pond/Open Water (64100)	8.0
Eucalyptus Woodland (79100)	1.8
Orchard (18100) <sup>3</sup>	102.8
Fallow Orchard (18100) <sup>3</sup>	32.1
Non-native Vegetation (79100) <sup>3</sup>	1.3
Disturbed Habitat (11300)	49.6
Developed Land (12000)	30.3
<b>TOTAL</b>	<b>1,402.5</b>

<sup>1</sup> Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).

<sup>2</sup> Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, total reflects rounding.

<sup>3</sup> All or most of this vegetation community burned during the December 2017 Lilac Fire.

Sensitive vegetation communities/habitat types mapped on the project site include southern cottonwood-willow riparian forest, southern willow scrub, mule fat scrub, freshwater marsh, herbaceous wetland, tamarisk scrub, open water/freshwater pond, coast live oak woodland, Diegan coastal sage scrub, flat-topped buckwheat scrub, coastal sage-chaparral scrub, southern mixed chaparral, and non-native grassland.

Pasture, row crops, eucalyptus woodland, orchard, fallow orchard, non-native vegetation, disturbed habitat, and developed lands do not meet the definition of sensitive habitat under CEQA.

### 2.3.5 Wildlife

A total of 163 animal species were observed or otherwise detected on the project site during the biological surveys, including 30 invertebrate, four amphibian, six reptile, 107 bird, and 16 mammal species (HELIX 2019a).

### 2.3.6 Sensitive Species

Four special status plant species were observed on the project site (HELIX 2019a): Brewer's calandrinia (*Calandrinia breweri*), delicate clarkia (*Clarkia delicata*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), and smooth tarplant (*Centromadia pungens* ssp. *laevis*). Twenty-seven special status animal species have been observed or detected on or directly adjacent to the project site during biological surveys conducted for the project: barn owl (*Tyto alba*), California horned lark (*Eremophila alpestris actia*), Canada goose (*Branta canadensis*), CAGN, coastal western whiptail (*Aspidoscelis tigris stejnegeri*), Cooper's hawk (*Accipiter cooperii*), golden eagle (*Aquila chrysaetos*), great blue heron (*Ardea herodias*), green heron (*Butorides virescens*), least Bell's vireo, loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), osprey (*Pandion haliaetus*), red-shouldered hawk (*Buteo lineatus*), snow goose (*Chen caerulescens*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), southern mule deer (*Odocoileus hemionus fuliginata*), turkey vulture (*Cathartes aura*), vermilion flycatcher (*Pyrocephalus rubinus*), western bluebird (*Sialia mexicana*), western spadefoot (*Spea hammondi*), white-faced ibis (*Plegadis chihi*), white-tailed kite (*Elanus leucurus*), willow flycatcher (*Empidonax traillii*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*).

### 2.3.7 Project Impacts and Required Mitigation

#### 2.3.7.1 Sensitive Vegetation

The project would permanently impact 72.1 acres of sensitive vegetation communities, including 71.9 acres of uplands and 0.2 acre of wetlands. Impacts to 71.9 acres of sensitive upland vegetation communities include 0.4 acre of coast live oak woodland, 32.5 acres of DCSS (including disturbed), 1.4 acres of flat-topped buckwheat scrub, and 37.6 acres of non-native grassland (Table 3; Figure 5; HELIX 2019a). Although pasture is not considered a sensitive habitat, mitigation for impacts is required pursuant to County guidelines as it is considered foraging habitat for raptors. Until the December 2017 Lilac fire, coast live oak woodland, DCSS, and flat-topped buckwheat scrub were well-vegetated with moderate to dense perennial tree or shrub cover. Disturbed DCSS contained scattered perennial shrubs growing on the slopes of three incised drainages, among cut avocado tree limbs and woody debris deposited on the slopes. Non-native grassland was mainly comprised of annual non-native grasses. Following the fire, woodland and scrub communities were devoid of approximately 90 percent of their pre-fire vegetation, with shrubs being burned to ground level or with only a few remaining large branches. Non-native grassland was burned to bare ground.

Mitigation for impacts to riparian habitats and jurisdictional areas is addressed in a separate restoration plan (HELIX 2019b). Mitigation for impacts to upland sensitive habitats (coast live oak woodland, DCSS [including disturbed], flat-topped buckwheat scrub, and non-native grassland/raptor foraging habitat) will be met through on-site preservation of similar habitat within a biological open space easement, with no restoration component. The Resolution of Approval including applicable conditions of approval will be attached to the Final Revegetation Plan submitted after discretionary approval and prior to grading permit issuance.



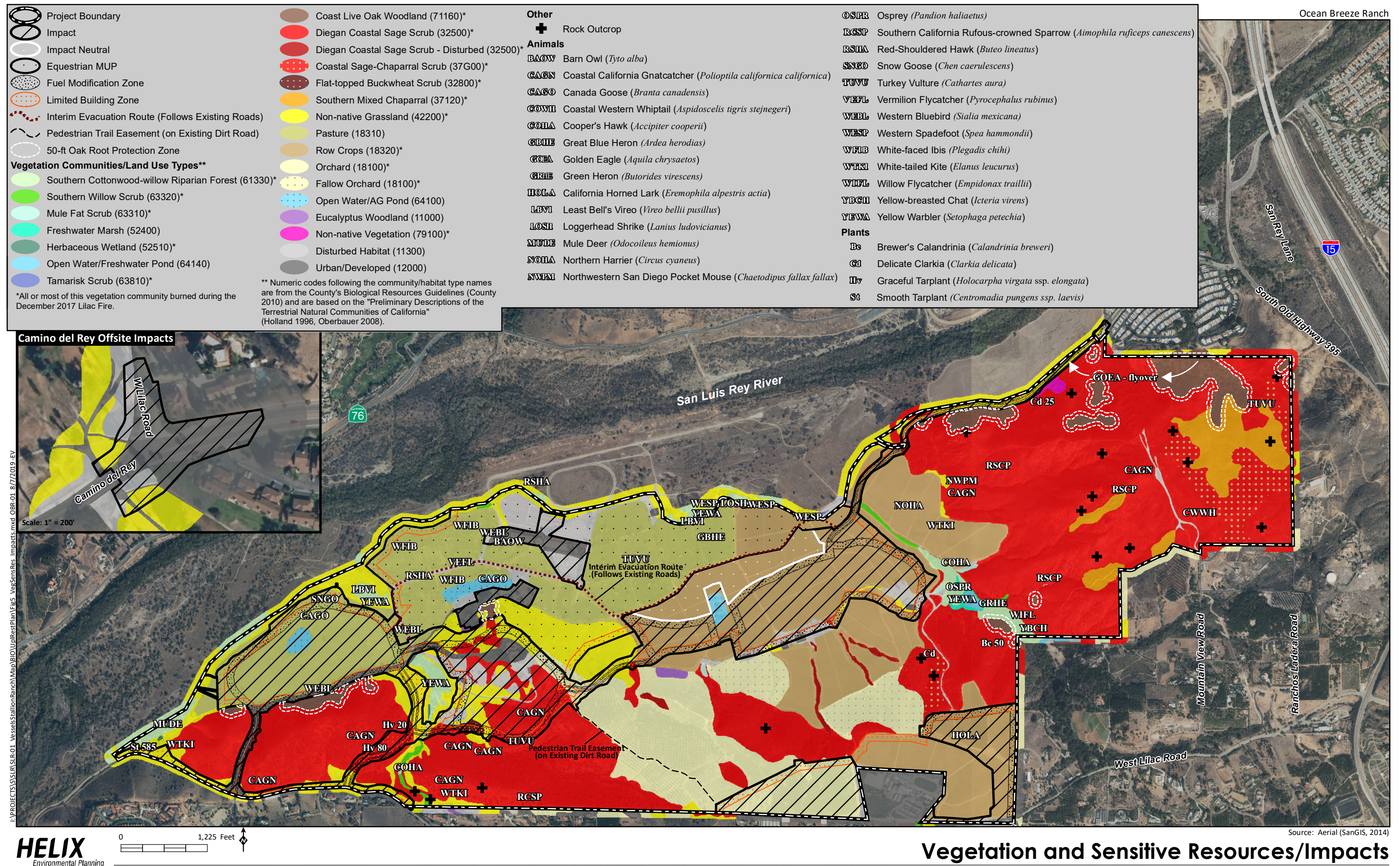


Figure 5



**Table 3**  
**PROJECT IMPACTS TO VEGETATION COMMUNITIES/HABITAT TYPES<sup>1</sup>**

Vegetation Community <sup>2</sup>	Existing On-site	On-site Impacts <sup>3</sup>		Off-site Impacts		Total Impacts
		Inside PAMA <sup>4</sup>	Outside PAMA	Inside PAMA	Outside PAMA	
Sensitive Vegetation Communities/Habitat Types						
Southern Cottonwood-willow Riparian Forest (61330) <sup>5</sup>	18.18	0	0	0	0	0
Southern Willow Scrub (63320) <sup>5</sup>	3.03	0.01	0	0	0	0.01
Mule Fat Scrub (63310) <sup>5</sup>	1.30	0.17	0	0	0	0.17
Freshwater Marsh (52400)	0.98	0	0	0	0	0
Herbaceous Wetland (52510) <sup>5</sup>	0.24	0	0	0	0	0
Tamarisk Scrub (63810) <sup>5</sup>	0.09	<0.01	0	0	0	<0.01
Freshwater Pond/Open Water (64140)	1.16	0	0	0	0	0
Coast Live Oak Woodland (71160) <sup>5</sup>	29.2	0.4	0	0	0	0.4
Diegan Coastal Sage Scrub – including disturbed (32500) <sup>5</sup>	509.2	32.0	0.4	0.1	0	32.5
Flat-topped Buckwheat Scrub (32800) <sup>5</sup>	1.4	1.4	0	0	0	1.4
Coastal Sage-chaparral Scrub (37G00) <sup>5</sup>	31.5	0	0	0	0	0
Southern Mixed Chaparral (37120) <sup>5</sup>	31.8	0	0	0	0	0
Non-Native Grassland (42200) <sup>5</sup>	104.2	36.2	1.0	0.4	0	37.6
Subtotal Sensitive Communities	732.3	70.2	1.4	0.5	0	72.1
Non-sensitive Vegetation Communities/Habitat Types						
Extensive Agriculture: Pasture (18310) <sup>6</sup>	178.3	58.5	0	0	0	58.5
Extensive Agriculture: Row Crops (18320) <sup>5</sup>	265.9	71.8	33.0	0	0	104.8
Agricultural Pond/Open Water (64100)	8.0	4.1	0	0	0	4.1
Eucalyptus Woodland (79100)	1.8	0.2	0	0	0	0.2
Orchard (18100) <sup>5</sup>	102.8	6.7	25.2	0	0	31.9
Fallow Orchard (18100) <sup>5</sup>	32.1	0	0.3	0	0	0.3
Non-native Vegetation (79100) <sup>5</sup>	1.3	0.1	0	0	0	0.1
Disturbed Habitat (11300)	49.6	18.9	7.7	0.5	0	27.1
Developed Land (12000)	30.3	26.0	2.3	0.4	0.8	29.5
Subtotal Non-sensitive Communities	670.2	186.3	68.5	0.9	0.8	256.5
TOTAL	1,402.5	256.5	69.9	1.4	0.8	328.6

<sup>1</sup> Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, total reflects rounding.

<sup>2</sup> Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).

<sup>3</sup> Includes proposed residential development impacts and 19.4-acre improved area of the equestrian facility.

<sup>4</sup> A total of 1,176.9 acres of Pre-Approved Mitigation Area (PAMA) occurs on site.

<sup>5</sup> All or most of this vegetation community burned during the December 2017 Lilac Fire.

<sup>6</sup> Although not considered a sensitive habitat, impacts to pasture require mitigation for raptor foraging.

### 2.3.7.2 Sensitive Plants

The project would result in impacts to one special status plant species: graceful tarplant, a County List D species. All other special status plant species observed on site would be conserved in biological open space, in addition to a portion of the population of graceful tarplant. The project would impact 80 individuals of graceful tarplant; however, this impact is considered less than significant and does not require mitigation.

### 2.3.7.3 Sensitive Wildlife

The project would result in impacts to suitable breeding or foraging habitat for 21 special status animal species observed or detected on or adjacent to the site, including CAGN, least Bell's vireo, northern harrier, southern California rufous-crowned sparrow, Cooper's hawk, California horned lark, red-shouldered hawk, vermilion flycatcher, western bluebird, white-tailed kite, loggerhead shrike, white-faced ibis, turkey vulture, barn owl, snow goose, Canada goose, great blue heron, western spadefoot, coastal western whiptail, yellow warbler, and northwestern San Diego pocket mouse.

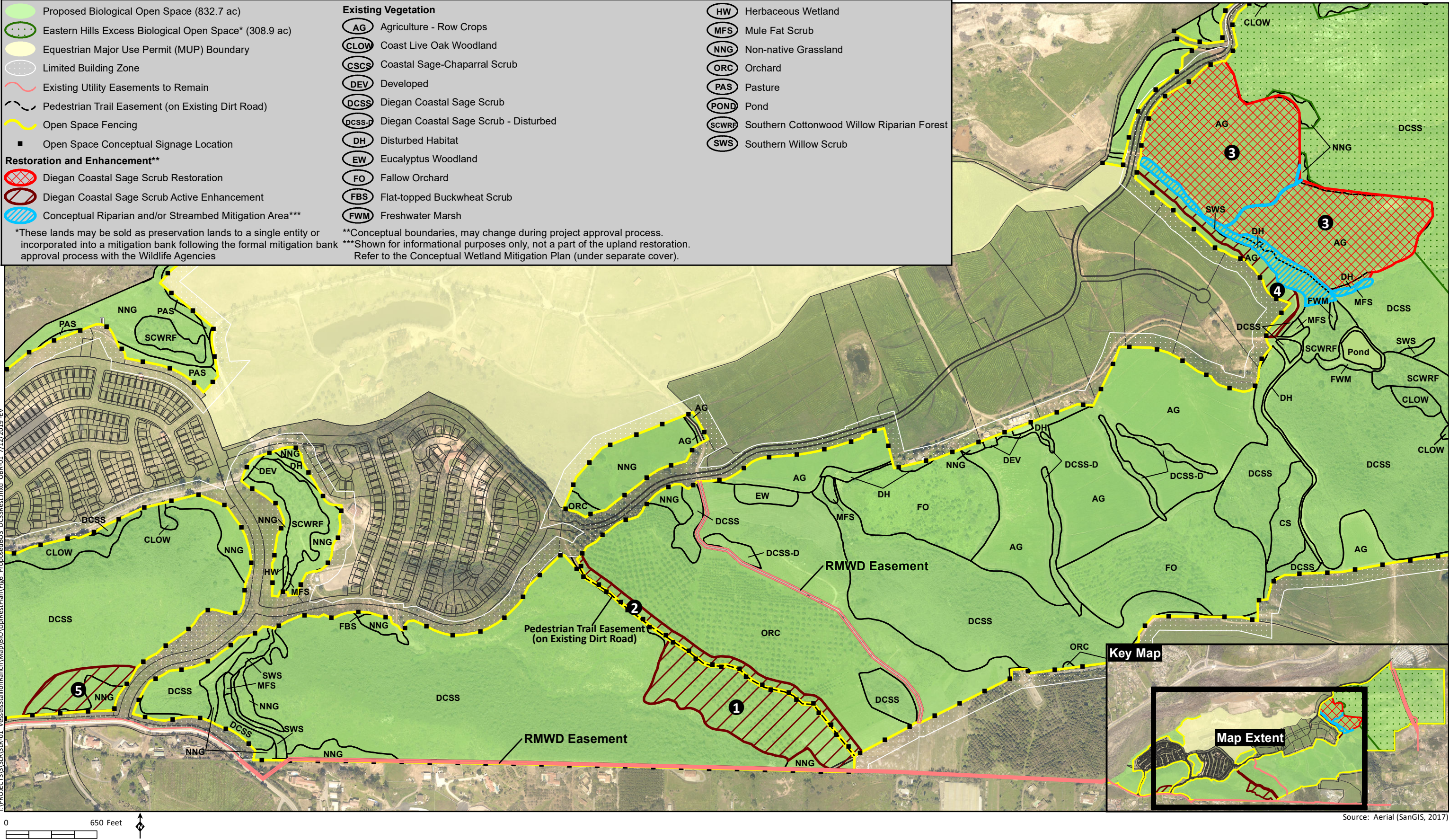
The project site has been known to provide important live-in and dispersal habitat for CAGN (HELIX 2019a), potential foraging and aestivation habitat for western spadefoot (this species has been documented adjacent to the site [HELIX 2019a]), and also contains potential future foraging and aestivation habitat for arroyo toad, although the site is not currently occupied by this species (arroyo toad formerly occupied the adjacent offsite reach of the San Luis Rey River to the north [HELIX 2019a]).

As further discussed below, the restoration and enhancement activities proposed herein are additional efforts to be implemented based on coordination with the Wildlife Agencies and County PDS, beyond the required habitat preservation that meets (and exceeds) established mitigation ratios. Although the majority of project impacts to sensitive wildlife would be mitigated through on-site habitat preservation, combined with other project-specific mitigation measures to address potential impacts, such as restrictions on clearing and grubbing during the avian breeding season, installing toad exclusionary fencing in appropriate areas, etc., additional restoration and enhancement above and beyond these measures is proposed. Due to the previously documented CAGN occupation of DCSS habitat within the project site, and the site's location within a large area of land identified as PAMA by the NC MSCP, additional on-site DCSS restoration and enhancement has been recommended by the Wildlife Agencies and County. Therefore, the restoration and enhancement of upland habitat for these species is the subject of this plan. Implementation of this plan is not intended to provide suitable breeding habitat for arroyo toad or western spadefoot.

### Coastal California Gnatcatcher

The project would impact 32.5 acres of Diegan coastal sage scrub, the majority of which was occupied by CAGN prior to the 2017 Lilac fire, in addition to impacting 1.4 acres of flat-topped buckwheat scrub, for combined total of 33.9 acres of sage scrub and buckwheat scrub impacts. Consistent with County requirements, the proposed project would compensate for project impacts to DCSS and flat-topped buckwheat scrub at a 3:1 ratio through on-site preservation of 101.7 acres of DCSS. The 101.7 acres are only a portion of the overall amount of DCSS habitat that will be conserved in on-site biological open space, which totals 467.8 acres. Thus, conservation of DCSS on site greatly exceeds the acreage required for mitigation. Although not required as habitat mitigation, the 35.0 acres of DCSS restoration and 23.3 acres of DCSS enhancement proposed in this plan (Figure 6; Areas 1 thru 5) were identified in







consultation with the County and Wildlife Agencies. It is noted that nearly all sage scrub on site burned in the Lilac Fire, thus rendering most of the existing habitat unsuitable for CAGN occupation until the vegetation sufficiently recovers.

### **Western Spadefoot and Arroyo Toad**

The project would not result in direct impacts to arroyo toad or western spadefoot toad and no species-specific mitigation is required, however, at the request of the Wildlife Agencies, the DCSS restoration proposed near the northern site boundary (Figure 6; Areas 3) will incorporate plant species and cover targets intended to provide suitable upland aestivation and foraging habitat for these species.

## **3.0 GOALS OF COMPENSATORY MITIGATION**

The goal of this restoration plan is to replace functions and services associated with upland habitat lost as a result of the proposed project, thereby providing suitable breeding habitat for CAGN, and potential upland aestivation and foraging habitat for arroyo toad and western spadefoot.

### **3.1 RESPONSIBILITIES**

#### **3.1.1 Project Proponent**

Ocean Breeze Ranch, LLC (or its successor in interest, in the event a sale of the property takes place) will be responsible for financing the installation, maintenance, and monitoring of the proposed on-site upland restoration effort. Ultimately, the restoration, together with all biological open space designated on site, may be transferred in fee title (subject to County approval) to a public or private entity specializing in long-term management of open space. If such a transfer were to occur prior to County sign off of the implemented upland restoration effort, this entity would become responsible for the maintenance program described herein.

#### **3.1.2 County of San Diego**

As part of the monitoring program, annual reports prepared by the restoration specialist will be submitted to the Wildlife Agencies and County. The County will review these reports for completeness and will determine the success of the restoration effort together with the Wildlife Agencies.

#### **3.1.3 Compensatory Mitigation Project Designer**

The Final Revegetation Plans (i.e., revegetation construction drawings) will consist of construction drawings, including irrigation and planting plans, prepared by a California registered landscape architect, meeting the requirements in the County's Report Format and Content Requirements for Revegetation Plans section 2.11 (County 2007). The landscape architect will inspect the irrigation system prior to seeding and planting to help assure complete coverage of the restoration area while minimizing runoff into the adjacent habitat.

#### **3.1.4 Installation Contractor**

The installation contractor will have at least five years of experience in successful native upland habitat restoration in Southern California and be under the direction of the restoration specialist who will assist

the contractor with the installation of the target vegetation type. Different contractors may be used for the installation and maintenance phases of the upland restoration effort, or they may be the same entity. The project proponent may change contractors at its discretion, as long as the contractor has the required level of experience, as stated above. Installation may include, but is not limited to, discing/minor grading, removing non-native plants, mulching dead citrus trees, de-compacting soil, and installing irrigation lines, container plants and seed.

### **3.1.5 Restoration Specialist**

Overall supervision of the installation, maintenance, and monitoring of this restoration effort will be the responsibility of a qualified restoration specialist with at least five years of experience with successful native upland habitat restoration in Southern California. The restoration specialist will oversee the efforts of the installation and maintenance contractor for the duration of the restoration effort. Specific tasks of the restoration specialist include educating all participants with regard to restoration/enhancement goals and requirements, as well as directly overseeing initial discing/grading, weeding, planting, and seeding, as well as maintenance activities for the duration of the five-year maintenance period. The restoration specialist will explain to the contractor how to avoid impacts to existing sensitive habitat and sensitive species. When necessary to keep the restoration effort on track to meeting final success criteria, the restoration specialist will provide the project proponent and contractor with a written monitoring memorandum, including a list of items in need of attention. The restoration specialist also will conduct annual assessments of the restoration effort and prepare and submit an annual report to the County and Wildlife Agencies each year during the 5-year maintenance and monitoring period.

### **3.1.6 Maintenance Contractor**

The maintenance contractor will have at least five years of experience in successful native upland habitat restoration in Southern California and be under the direction of the restoration specialist, who will assist the contractor with the maintenance of the target vegetation type. Different contractors may be used for the installation and maintenance phases of the restoration effort, or they may be the same entity. The project proponent may change contractors at its discretion, as long as the contractor has the required level of experience, as stated above. The contractor will service the entire restoration/enhancement areas as required, meet the restoration specialist at the site when requested, and perform all checklist items in a timely manner as directed by the project proponent. The maintenance contractor will be knowledgeable regarding the maintenance of native habitat and the difference between native and non-native plants. Maintenance would include but not be limited to non-native plant species control, trash removal, irrigation adjustments and repairs, and potentially re-seeding and/or re-planting. All maintenance activities would be seasonally appropriate and approved by the restoration specialist.

### **3.1.7 Nursery (Seed/Plant Procurement)**

Plants and seed may be purchased from a nursery or supplier specializing in native plants or contract grown. Plant and seed material should be locally propagated and collected from central San Diego County, within 25 miles of the site. Cactus salvage will be conducted by qualified nursery staff under the supervision of the restoration specialist. Salvaged cacti will be rooted out into 1-gallon containers at a nursery qualified to grow native plants, under the supervision of the restoration specialist.

## 3.2 TYPES AND AREAS OF HABITAT TO BE RESTORED OR ENHANCED

As previously stated, proposed on-site preservation of habitat greatly exceeds the acreages required for upland habitat mitigation. However, pursuant to coordination meetings held with the Wildlife Agencies and County, the project proponent has agreed to provide the following two types of restoration and/or enhancement over and above the on-site preservation: DCSS restoration and active DCSS enhancement, further described below. The level of effort varies between the types of restoration or enhancement proposed; locations were determined in consultation with the Wildlife Agencies and County. The acreage proposed consists of 35.0 acres of on-site DCSS restoration within an area formerly occupied by row crops and 23.3 acres of on-site DCSS active enhancement, of which 19.0 acres currently consist of burned orchard or former row crops (Table 4; Figure 6).

**Table 4**  
**ACREAGES OF RESTORATION AND ENHANCEMENT AREAS**

Area	Restoration	Active Enhancement
1	--	13.2
2	--	2.9
3	35.0	--
4	--	2.9
5	--	4.3
<b>TOTAL</b>	<b>35.0</b>	<b>23.3</b>

### 3.2.1 DCSS Restoration

A total of 35.0 acres of restoration will occur in one area on site (Figure 6):

**Area 3 (35.0 acres)** – This area is located in an area formerly used for row crops but currently containing nearly 100 percent cover by non-native oats (*Avena* sp.), which were seeded after row crop agriculture was abandoned for erosion control and to provide hay for horses at the equestrian facility. This area is near a previous CAGN sighting (Figure 5) and, following restoration, is considered likely to provide breeding habitat for CAGN. Due to its proximity to the existing creek and riparian corridor, this area is also expected to provide suitable upland aestivation and foraging habitat for arroyo toad and western spadefoot toad. To this end, sparser planting/seeding will be conducted within the western portion of this area.

### 3.2.2 Active DCSS Enhancement

A total of 23.3 acres of active DCSS enhancement are proposed in four areas (Figure 6):

**Area 1 (13.2 acres)** – This area is located within a former orchard that is currently dominated by non-native grasses and forbs and contains scattered dead citrus trees and resprouting avocado trees. It is located east of DCSS habitat where CAGN pairs have been observed (Figure 5); therefore, the enhancement of this area for CAGN foraging and potentially breeding habitat is considered feasible.

**Area 2 (2.9 acres)** – This area is located along a 50-foot-wide swath at the top of a ridgeline that currently contains scattered non-native grasses and sparse non-native forbs but is otherwise bare. Its location along the top of a slope means this area is less likely to become infested with non-native

vegetation from downslope, and its relatively bare condition means it will not require extensive weed control to make it ready for native plant establishment.

**Area 4 (2.9 acres)** – This area was previously used for row crop agriculture, although this use was abandoned approximately three years ago; it was then seeded with non-native oat grasses for erosion control and hay production and is currently dominated by this species during the winter and spring. Other plants in this area are non-native annual grasses and scattered non-native forbs. Area 4 can serve as an upland buffer around the existing riparian corridor and can provide improved potential aestivation habitat for arroyo toad and western spadefoot.

**Area 5 (4.3 acres)** – Following the recent fire, former DCSS in this area is being overtaken by small forbs such as filaree (*Erodium* spp.) and non-native annual grasses that likely became established along the adjacent road during previous disturbances. It is expected that, without active intervention, filaree and annual grasses will further spread during post-fire recovery and could outcompete native shrub seedlings in a larger portion of the existing DCSS habitat. This area is located on a south-facing slope with scattered burned cacti in the vicinity of previous CAGN sightings (Figure 5). With enhancement, this area could contain groupings of cacti that might eventually provide suitable coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) habitat.

### 3.3 FUNCTIONS AND VALUES

The goal of the proposed restoration is to establish DCSS habitat that can provide habitat functions and services for CAGN, arroyo toad, and western spadefoot. Overall, fewer, and often different, wildlife species tend to use areas dominated by non-native vegetation. Native habitat restoration is expected to increase habitat value to native flora and fauna, including providing cover for wildlife movement, foraging and nesting habitat for the CAGN, and, where located near riparian habitat, potential aestivation and foraging habitat for arroyo toad and western spadefoot toad. At the end of five years of maintenance and monitoring, the restored habitat is expected to replace the habitat functions and values lost from project implementation and to continue on the trajectory toward developing functions and values of adjacent native DCSS habitat without further active management.

The goal of the proposed active DCSS enhancement is to jump-start the natural process of native shrub establishment in highly disturbed areas and increase the number of native cacti in areas with potential to provide suitable cactus wren habitat.

### 3.4 TIME LAPSE

Restoration installation should occur during or prior to the fall of the year in which project grading (and all impacts to DCSS habitat) is initiated. Sign off of the DCSS restoration and active enhancement efforts is expected by the end of the five-year maintenance and monitoring period.

### 3.5 COST

A complete itemized cost estimate will be submitted after discretionary approval and prior to grading permit issuance. The cost estimate shall include the following: preparation of a restoration schedule; all site preparation including grading and grow/kill cycles; installation of irrigation, plants, and seed; implementation of any necessary erosion control, fencing and signage; implementation of habitat

enhancement such as solitary bee and reptile/rodent refugia; and all proposed maintenance and monitoring. A 20 percent contingency shall also be included for DCSS restoration (Area 3).

## 4.0 DESCRIPTION OF THE PROPOSED COMPENSATORY MITIGATION SITE

### 4.1 SITE SELECTION

The DCSS restoration area (Figure 6; Area 3) was selected for restoration due to its proximity to existing DCSS habitat near previous CAGN sightings prior to the 2017 Lilac fire (HELIX 2019a), its location near the offsite Caltrans mitigation site which provides habitat for spadefoot toad and potential future habitat for arroyo toad, combined with its location between existing riparian and native scrub habitats, providing an opportunity to restore this gap in an otherwise contiguous block of habitat. The four enhancement areas were chosen due to their proximity to existing (pre-fire) DCSS habitat and potential for providing CAGN corridors and habitat (Areas 1 and 2), location adjacent to an existing riparian corridor (Area 4), or potential to provide cactus wren habitat (Areas 1 and 5).

The majority of the proposed DCSS restoration/enhancement will occur in areas that contain sandy loam soils (Figure 4; HELIX 2019a), which are considered appropriate for native upland habitat – as demonstrated by the presence of similar soils in existing DCSS habitat on site.

### 4.2 LOCATION AND SIZE OF COMPENSATORY MITIGATION SITE

The DCSS restoration and enhancement areas are located on site, between approximately 33.298586 and 33.314585 north latitude and between -117.210635 and -117.156997 west longitude.

**Area 1 (13.2 acres)** – This area is located along the southern boundary of the site, at the western terminus of West Lilac Road.

**Area 2 (2.9 acres)** – This area is on a ridgeline along the east side of the dirt road leading to Area 1.

**Area 3 (35.0 acres)** – This area is located east of the eastern riparian corridor.

**Area 4 (2.9 acres)** – This area is located west of the eastern riparian corridor.

**Area 5 (4.3 acres)** – This area is located in the southwestern portion of the project site along the southern boundary, west of the proposed project entrance.

### 4.3 FUNCTIONS AND VALUES

In their current state, all of the areas proposed for restoration and enhancement are almost entirely made up of disturbed habitat dominated by non-native grasses and forbs that were previously in agricultural use as row crops or orchards. In their current condition these areas provide limited functions and values as wildlife habitat, primarily functioning as pass-through habitat that provides connectivity to areas of higher quality habitat, as well as limited value for raptor foraging (the tall dense grasses likely obscure visibility).



The proposed restoration/enhancement areas are located adjacent to areas that supported DCSS habitat and use by a variety of wildlife prior to the Lilac fire. These areas are expected to recover naturally and the additional DCSS restoration/enhancement is expected to increase the size of quality habitat for a variety of wildlife, including CAGN and potentially cactus wren. Restored/enhanced habitat located adjacent to the eastern riparian corridor would also provide potential foraging/aestivation habitat for arroyo toad and western spadefoot.

## **4.4 PRESENT AND PROPOSED USES**

The current general land uses on the project site include agriculture and equestrian uses, and undeveloped land. Horse pastures, row crops, and orchards occupy most of the northern half of the site, as well as the central and north-central portions of the site. Some former row crop areas have been planted with oats to provide hay. Following the Lilac fire, all orchards have been abandoned. Areas of native habitat are concentrated in the eastern and southwestern portions of the site.

In addition to implementing habitat restoration/enhancement discussed in this plan, the project will ultimately consist of a single-family residential community, a privately-owned equestrian facility, and a large area of preserved biological open space that will be managed over the long term by a habitat manager according to the Resource Management Plan (in process).

## **4.5 REFERENCE SITE**

Due to the recent Lilac fire that burned much of the native habitat on site as well as adjacent open space, a reference site for DCSS is not proposed for the restoration identified in this plan. Rather, the restoration goal will be based on visual estimates of native cover from the pre-fire survey conditions that were noted as part of surveys conducted for the biological technical report (HELIX 2019a).

# **5.0 IMPLEMENTATION PLAN**

This section provides the details for the execution of the proposed restoration and enhancement.

## **5.1 RATIONALE FOR EXPECTING IMPLEMENTATION SUCCESS**

The proposed DCSS restoration is anticipated to be successful based on the following: (1) previous occurrence of DCSS habitat; (2) presence of appropriate soils; (3) proximity to burned native DCSS habitat that will aid the dispersal of beneficial soil microorganisms and, following post-fire recovery, native seed; (4) the use of plantings and seed of native species known to occur on site; (5) the use of temporary irrigation to aid plant establishment; and (6) a financial commitment to ensure the long-term management of the restored lands.

The proposed active DCSS enhancement effort is expected to reduce cover by non-native grasses and forbs and jump-start native revegetation by installing native seed. This effort is expected to be particularly successful in Areas 1, 2, and 5 where soils have not been disturbed by repeated discing.

## 5.2 FINANCIAL ASSURANCES

A revegetation agreement shall be signed and notarized by the property owner following approval of this restoration plan and be accompanied by the required security as agreed upon by the County.

## 5.3 SCHEDULE

Plant and seed orders should be placed one year prior to targeted installation because some species may need to be specially collected and/or grown for the project, requiring up to a year prior to installation. Cactus salvage should occur 6 months prior to installation to allow time for pads to establish roots in 1-gallon containers. Mulch salvage should occur prior to project impacts.

Restoration/enhancement activities should be started in the summer of the year in which project grading is initiated. Any initial discing, mowing, string trimming, limited grading, and removal of dead citrus/re-sprouting avocado trees should be conducted in the summer, prior to the start of the rainy season (considered to be October 1 to April 30). At the start of the rainy season irrigation and plantings should be installed in Area 3, seed should be installed in Areas 1, 2 and 5, and pre-emergent herbicide should be applied to Areas 3 and 4. Maintenance for five years will begin after this installation is complete. Monitoring/coordination will begin during placement of plant/seed orders and cactus salvage and will continue during site preparation and throughout the five-year maintenance period.

## 5.4 SITE PREPARATION

### 5.4.1 Cactus Salvage

Cane cholla (*Cylindropuntia californica* var. *parkeri*) and coast prickly pear (*Opuntia littoralis*) will be salvaged from throughout the site, particularly from any areas proposed for project impacts, and will be grown into 1-gallon container plantings at a qualified nursery. Salvaged cacti will need to be rooted out for six months. Salvaged cacti will be installed in Areas 1, 2, and 5 (combined 20.4 acres). Approximately 200 of each species should be installed per acre, for a total of up to 8,200 cacti. Not all of this material is expected to be salvaged from on-site and some will need to be obtained from a qualified native plant nursery.

### 5.4.2 Mulch Salvage

Any impacted DCSS habitat should be track-walked and grubbed material should be stockpiled for later use within the 35.0-acre DCSS restoration area where it can help provide some additional native seed, add organic matter to the soil, and serve as erosion control. Stockpiled material should be stored in a weed-free area, ideally within Area 3.

### 5.4.3 Initial Weed Control and Grading

Initial site preparation at the restoration/enhancement areas will be conducted as follows:

**Areas 1, 2, and 5** – Currently these areas have lower cover by non-native vegetation and undisturbed soils; therefore, initial weed control can be conducted with either a string trimmer or manually. Cut material will be left on site.

**Area 3** – This area contains abundant oat grass and should either be mowed or cleared of vegetation using string trimmers. This area may need to be dethatched if cut vegetation would prohibit seed germination (to be determined in coordination with the restoration specialist). In the event dethatching is required, it is recommended that a hay rake be used to create windrows out of the cut vegetation. These rows of cut vegetation will also help serve as erosion control. Existing earthen drainage ditches will be graded to match adjacent topography. In addition, a drainage currently entering this area from the east will be extended to connect to the riparian corridor located downslope. Additional details on this drainage are provided in the on-site wetland mitigation plan (HELIX 2019b).

**Area 4** – This area contains abundant oats and vegetation should be removed by discing or with string trimmers. This area may need to be dethatched (e.g., using a hay rake) if cut vegetation would prohibit seed germination (to be determined in coordination with the restoration specialist). Any earthen drainage ditches will be graded to match adjacent topography.

#### **5.4.4 Soil Amendments/Mulch Installation**

Based on soils analyses conducted by Waypoint Analytical in January 2018, several of the areas proposed for restoration and enhancement have low nitrogen and iron levels. Soils tested in areas that contained healthy native vegetation prior to the Lilac fire likewise had low nitrogen and other soil minerals. In general, native vegetation is adapted to low nutrient conditions; therefore, no soil amendments are recommended.

Salvaged mulch should be installed in the irrigated islands located in Area 3, prior to planting.

### **5.5 PLANTING PLAN**

Native plantings will be installed within restoration Area 3 and native seed and salvaged cacti will be installed within active enhancement Areas 1, 2, and 5. Because of the use of pre-emergent herbicide in Areas 3 and 4, seed will not be installed in these areas until the following October, after one year of maintenance has been completed. Fast-growing annual species that are quick to germinate will be included in the seed mix to provide initial cover and help protect against soil erosion. Slower-growing perennials will provide long-term native cover and further protection against erosion.

The species selected for planting and seeding have been observed within DCSS habitat on site. All plants and seed should be obtained from northern San Diego County, within 25 miles of the site, whenever possible. Species substitutions, quantity changes, or use of commercial seed may be allowed, if necessary, at the discretion of the restoration specialist. The restoration specialist must approve all seed and container stock orders, including source locations, prior to ordering.

Container stock orders or production from seed may be needed up to 12 months prior to the anticipated installation date. Seed must be obtained from a seed collection facility specializing in native seed (e.g., S&S Seeds). Container stock, obtained from a nursery with experience growing native plants, should be one-gallon size, rooted appropriately for a one-gallon pot (i.e., neither root bound or insufficiently developed), and should be installed in holes that are the same size as the planting container and backfilled afterward. Holes will be dug with mechanical augers where possible and by hand elsewhere. Container stock shall contain mycorrhizal from the nursery, prior to delivery. The restoration specialist must inspect all plant material prior to installation; root bound material, any

material with argentine ants or other pests, and any other plants deemed damaged will not be accepted.

### **5.5.1 DCSS Restoration**

To create the lower density upland habitat suitable for foraging and aestivation by arroyo toad and western spadefoot which prefer open habitat with low-to-moderate vegetative cover, only 35 percent of restoration Area 3 will be planted. Plantings will be installed in a total of 118 islands comprised of approximately 185 plants each. Because habitats used for foraging and burrowing by arroyo toad are predominantly composed of riparian-associated species such as mule fat (*Baccharis salicifolia*) and willows (*Salix* sp.) (Campbell et al. 1996), these species will be installed within 50 feet of the riparian corridor. The plant and seed palette for DCSS Restoration (Area 3; Figure 6) is provided in Table 5.

**Table 5**  
**DIEGAN COASTAL SAGE SCRUB RESTORATION PLANT PALETTE**  
**(35.0 acres)**

CONTAINER PLANTINGS (12.25 acres)					
Scientific Name	Common Name	Number per Acre	Spacing on Center	Grouping Size	Amount to be Ordered
<i>Artemisia californica</i>	California sagebrush	250	5	25	3,060
<i>Asclepias fascicularis</i>	narrow leaf milkweed	200	3	5	2,450
<i>Cylindropuntia californica</i> var. <i>parkeri</i>	cane cholla	125	3	15	1,530
<i>Encelia californica</i>	coast sunflower	100	5	20	1,225
<i>Eriogonum fasciculatum</i>	flat top buckwheat	250	5	25	3,060
<i>Hazardia squarrosa</i>	saw-toothed goldenbush	100	5	10	1,225
<i>Hesperoyucca whipplei</i>	chaparral yucca	50	3	3	615
<i>Mimulus aurantiacus</i>	bush monkey flower	100	5	10	1,225
<i>Opuntia littoralis</i>	coast prickly pear	100	3	10	1,225
<i>Peritoma arborea</i>	bladderpod	125	5	5	1,530
<i>Rhamnus crocea</i>	spiny redberry	50	5	5	615
<i>Rhus integrifolia</i>	lemonadeberry	30	10	5	370
<i>Salvia apiana</i>	white sage	125	5	10	1,530
<i>Salvia mellifera</i>	black sage	125	5	20	1,530
<i>Yucca schidigera</i>	Mohave yucca	50	3	3	615
TOTAL		1,780			21,805
CONTAINER PLANTINGS (within first 50 feet from riparian corridor)					
Scientific Name	Common Name	Spacing on Center		Grouping Size	Amount to be Ordered
<i>Baccharis salicifolia</i>	mule fat	5		5	200
<i>Salix goodingii</i>	Goodding’s willow	10		3	100
TOTAL					300
SEED MIX (35.0 acres)					
Scientific Name	Common Name	Percent Purity/ Germination		Pounds Per Acre	Amount to be Ordered
<i>Acmispon glaber</i>	deerweed	95/80		0.5	17.5
<i>Artemisia californica</i>	California sagebrush	30/60		4	140.0
<i>Asclepias fascicularis</i>	narrow leaf milkweed	90/65		1	35.0
<i>Astragalus trichopodus</i>	Southern California milkvetch	N/A		1	35.0
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	common sandaster	8/30		3	105.0
<i>Deinandra fasciculata</i>	fascicled tarplant	25/65		1	35.0
<i>Encelia californica</i>	California encelia	30/45		3	105.0
<i>Eriogonum fasciculatum</i>	flat top buckwheat	50/20		5	175.0
<i>Eriophyllum confertiflorum</i>	golden-yarrow	N/A		2	70.0
<i>Eschscholzia californica</i>	California poppy	98/80		2	70.0
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	graceful tarplant	N/A		1	35.0
<i>Lupinus bicolor</i>	miniature lupine	98/85		1	35.0
<i>Muhlenbergia microsperma</i>	little-seed muhly	80/60		1	35.0
<i>Phacelia parryi</i>	Parry’s phacelia	95/80		1	35.0
<i>Salvia apiana</i>	white sage	88/30		2	70.0
<i>Salvia mellifera</i>	black sage	85/50		3	105.0
<i>Stipa lepida</i> , deawned	foothill needlegrass	90/71		1	35.0
<i>Stipa pulchra</i> , deawned	foothill needlegrass	90/75		6	210.0
TOTAL				38.5*	1,312.5

\* At least 30 lbs./acre of seed will be installed, based on availability from the project vicinity at the time of installation.

## 5.5.2 DCSS Enhancement

All 23.3 acres of DCSS enhancement will be hydroseeded, or, if access is limited, hand seeded and raked into the soil. Areas 1, 2 and 5 will be seeded following site preparation, while Area 4, which currently contains high cover by non-native oat grasses, will be treated with a pre-emergent herbicide and weeded for 1 year following site preparation and seeded at the start of Year 2. Only salvaged cacti plantings will be installed in the enhancement areas; these will be installed at a rate of 400 cacti per acre (200 coast prickly pear and 200 cane cholla), unless modified by the restoration specialist. The seed palette for DCSS Active Enhancement Areas (Areas 1, 2, 4, and 5; Figure 6) is provided in Table 6.

**Table 6**  
**DIEGAN COASTAL SAGE SCRUB AREAS ACTIVE ENHANCEMENT SEED PALETTE**  
**(23.3 acres)**

Scientific Name	Common Name	Percent Purity/ Germination	Pounds Per Acre	Amount to be Ordered*
<i>Acmispon glaber</i>	deerweed	95/80	1	23.5
<i>Artemisia californica</i>	California sagebrush	30/60	4	94.0
<i>Asclepias fascicularis</i>	narrow leaf milkweed	90/65	1	23.5
<i>Astragalus trichopodus</i>	Southern California milkvetch	N/A	1	23.5
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	common sandaster	8/30	2	47.0
<i>Deinandra fasciculata</i>	fascicled tarplant	25/65	2	47.0
<i>Encelia californica</i>	California encelia	30/45	4	94.0
<i>Eriogonum fasciculatum</i>	flat top buckwheat	50/20	7	164.5
<i>Eriophyllum confertiflorum</i>	golden-yarrow	N/A	2	47.0
<i>Eschscholzia californica</i>	California poppy	98/80	3	70.5
<i>Hazardia squarrosa</i>	saw-toothed goldenbush	10/20	1	23.5
<i>Hesperoyucca whipplei</i>	chaparral yucca	89/83	0.5	11.75
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	graceful tarplant	N/A	1	23.5
<i>Isocoma menziesii</i>	goldenbush	18/40	1	23.5
<i>Lupinus bicolor</i>	miniature lupine	98/85	1	23.5
<i>Muhlenbergia microsperma</i>	little-seed muhly	80/60	1	23.5
<i>Peritoma arborea</i>	bladderpod	98/45	2	47.0
<i>Phacelia parryi</i>	Parry's phacelia	95/80	1	23.5
<i>Rhamnus crocea</i>	Spiny redberry	83/48	1	23.5
<i>Salvia apiana</i>	white sage	88/30	2	47.0
<i>Salvia mellifera</i>	black sage	85/50	4	94.0
<i>Stipa pulchra</i> , deawned	foothill needlegrass	90/75	6	141.0
<i>Yucca schidigera</i>	Mohave yucca	90/50	1	23.5
<b>TOTAL</b>			<b>49.5‡</b>	<b>1,163.25</b>

\* To be ordered/packaged separately for each area based on respective acreage.

‡ At least 40 lbs./acre of seed will be installed, based on availability from the project vicinity at the time of installation.

## 5.6 IRRIGATION PLAN

Following initial weed control/discing, temporary, above-ground irrigation will be installed in restoration Area 3 as islands covering supplemental water to approximately 35 percent of this area. Irrigation plans

included with the revegetation construction drawings will show the Point of Connection (POC), available pressure, controller location, valves, piping, and head locations. If the POC is beyond the feasible reach of the restoration area, an off-site irrigation service line to the POC will be identified. Irrigation plans will provide the required backflow protection at the POC and identify the power source for the irrigation controller (if applicable). The project landscape architect, together with the installation contractor, will inspect the irrigation to ensure full coverage of the target area prior to plant/seed installation.

## **5.7 EROSION CONTROL**

If necessary, erosion control may be used in the restoration and/or enhancement areas wherever deemed necessary by the restoration specialist. Measures may include, but are not limited to windrows of cut vegetation, organic matting, fiber rolls (straw wattles), and silt fencing. Any installed erosion control materials will be removed from the site once sufficient native plant cover is established. In addition, a hydro-slurry containing tackifier and wood fiber/mulch will be applied with the seed mixture to provide erosion control across the site.

## **5.8 FENCING AND SIGNAGE**

No temporary fencing will be installed along restoration or enhancement boundaries; however, as part of project development, fencing will be installed along the edges of the residential development and equestrian facility to keep people and pets out of the biological open space. Open space signs will be installed at appropriate intervals along any development boundary to discourage access into biological open space and identify the limits of any adjacent fuel modification zone to ensure that fuel modification does not encroach on the biological open space, including the restoration and enhancement areas.

## **5.9 HABITAT FEATURES**

The restoration areas will provide microhabitats for a variety of wildlife. This will be enhanced by (1) planting cacti species in larger groupings such that mature plants could support coastal cactus wren; (2) installing at least 20 drilled logs for solitary bees; (3) creating/maintaining at least ten 7-foot diameter sand/dust bath areas for birds and small mammals; and (4) creating 3-foot by 5-foot piles of small branches/twigs for reptile and rodent refuges. These measures shall be included in the restoration landscape construction plans.

# **6.0 MAINTENANCE PLAN**

## **6.1 MAINTENANCE ACTIVITIES**

A five-year maintenance program is proposed to ensure the successful establishment and persistence of DCSS habitat within the 35.0-acre restoration areas and 23.3-acre active enhancement areas. The maintenance program will involve removal of non-native species and trash, irrigation maintenance, and any remedial measures deemed necessary for the success of the restoration program (e.g., re-seeding and re-planting). Maintenance activities will be directed by the restoration specialist and implemented by the maintenance contractor.

The maintenance guidelines specified herein are tailored for native plant establishment. Maintenance personnel will be informed of the goals of the restoration effort and the maintenance requirements. A professional with experience and knowledge in native habitat restoration maintenance will supervise maintenance. It is the maintenance contractor's responsibility to keep seeded and planted areas free of debris, and to monitor irrigation function and scheduling, plant material condition and health, and removal of non-native species. The maintenance contractor will also be responsible for replacing any dead or terminally stressed plants, at the direction of the restoration specialist. Damage to plants, irrigation systems, and other facilities occurring as a result of unusual weather or vandalism will be repaired as directed by the Restoration Specialist. The cost of such repairs will be paid for as extra work. The contractor will be responsible for damage caused by the contractor's inadequate maintenance or operation of irrigation systems, as determined by the restoration specialist.

### **6.1.1 Irrigation**

Irrigation will only be installed in DCSS restoration Area 3. The goal is to obtain germination and growth with the least amount of irrigation. Too much irrigation results in abnormal habitat and encourages invasion by non-native plants, leaches nutrients from the soil, and can increase erosion; therefore, water will be applied infrequently and only as needed to prevent plant mortality.

The irrigation system will be maintained until the restoration specialist determines that supplemental water is no longer required. At that time, irrigation will be permanently disconnected (e.g., the mainline will be cut), but not removed. Above-ground portions of irrigation will be removed when directed by the restoration specialist, or following restoration sign off by the County.

### **6.1.2 Non-native Plant Control**

Particular emphasis will be placed on proactive removal of non-native vegetation. As non-native plants become evident, they should be removed by hand or controlled with the proper herbicides (if approved by the restoration specialist). The restoration specialist will oversee non-native plant control by the maintenance contractor; however, maintenance personnel must be knowledgeable in distinguishing non-native species from desirable native vegetation. If maintenance personnel mistakenly remove native species the maintenance contractor will be responsible for rectifying the damage, at the direction of the restoration specialist.

Non-native forbs considered to be moderately or highly invasive by the California Invasive Plant Council (Cal-IPC 2016) shall be eradicated within the boundaries of all 35.0 acres of restoration and all 23.3 acres of active enhancement for all five years of maintenance. Examples of invasive plants observed on site include but are not limited to fennel (*Foeniculum vulgare*), Italian thistle (*Carduus pycnocephalus*), Australian saltbush (*Atriplex semibaccata*), and purple fountain grass (*Pennisetum setaceum*). Additional species may be added to this list, at the discretion of the restoration specialist. Non-native grasses listed as moderately or highly invasive will be controlled on site, but due to their abundance in the local area, total eradication is not considered feasible.

### **6.1.3 Seed Installation**

Native seed will be installed in the DCSS restoration Area 3 and enhancement Area 4 after one full year of weed control has been completed. This measure will help ensure that the non-native grass seed bank



has been reduced and there will be less competition from non-native vegetation as native seedlings become established.

#### **6.1.4 Pruning**

No post-installation pruning is necessary unless otherwise directed by the restoration specialist. For example, thinning of vegetation within the upland foraging and aestivation habitat for arroyo toad and western spadefoot, or if it is necessary to remove an obstruction from or for repair of the irrigation system.

#### **6.1.5 Trash**

Any trash observed within the 35.0 acres of restoration or 23.3 acres of enhancement should be removed for the duration of maintenance work in the respective area. All trash will be properly disposed of at a licensed landfill.

#### **6.1.6 Pests**

Insects, vertebrate pests, and diseases will be monitored. Generally, pests will be tolerated unless they pose a significant threat to restoration success. If deemed necessary, a licensed pest control adviser will make specific pest control recommendations. All applicable federal and state laws and regulations will be closely followed. The restoration specialist will be consulted on any pest control matters.

#### **6.1.7 Fertilization**

Fertilizer will not be applied in the maintenance phase, except in extraordinary circumstances and only at the written direction of the restoration specialist.

#### **6.1.8 Sensitive Species Issues**

Maintenance activities are not anticipated to include use of heavy equipment or vehicles and as such are not anticipated to have adverse effects on sensitive species. However, mowers may be used if deemed necessary by the restoration specialist, and all maintenance activities will be carried out under the direction of the restoration specialist, as necessary, to avoid any impacts to sensitive species.

#### **6.1.9 Remedial Installation**

Areas with low seed germination and establishment of native plantings within the 35.0 acres of restoration will be re-seeded and/or re-planted, at the direction of the restoration specialist. The 23.3 acres of active enhancement also may be re-seeded, or additional cacti added, at the discretion of the restoration specialist.

### **6.2 SCHEDULE**

#### **6.2.1 Maintenance Schedule**

Maintenance will be performed as necessary to prevent re-seeding by non-native plants and will likely change with varying site conditions and seasons; the schedule outlined herein (Table 7) serves only as a

guideline, and more frequent maintenance may be required to prevent re-seeding by non-native vegetation and/or to meet interim cover limits for non-native vegetation. The maintenance contractor will complete maintenance requests from the restoration specialist within 14 days of any written request.

**Table 7**  
**MAINTENANCE SCHEDULE\***

Phase	Schedule
<b>DCSS Restoration Areas Maintenance – Area 3 (35.0 acres)</b>	
Year 1 (following planting and treatment with pre-emergent herbicide)	Four events
Year 2 (following seeding)	Six events**
Years 3 through 5	Four events**
<b>DCSS Active Enhancement Maintenance – Areas 1, 2, 4, and 5 (23.3 acres)</b>	
Years 1 through 5	Four events

\* This schedule is only a guideline; maintenance will be performed as necessary and as directed by the restoration specialist such that non-native vegetation does not re-seed these areas.

\*\* Each reduction in monitoring frequency can only occur if non-native vegetation did not re-seed during the prior year and interim non-native cover goals are met.

## Restoration Areas

During Year 1, weeding will be conducted four times within the 35.0 acres of restoration (Area 3) such that non-native vegetation does not drop seed. Irrigated islands would typically be expected to have more weed germination, and more rounds of weeding during Year 1; however, given that pre-emergent herbicide will be applied throughout the site more rounds of weeding are not anticipated. Since seed will be installed later, this area can be mowed/weed-whipped/or broadcast treated with herbicide from a spray rig during Year 1.

Since pre-emergent herbicide will not be re-applied and seed will be installed, increased weeding is expected to be needed in Year 2. Assuming non-native cover targets are met in Year 2 and no re-seeding occurs, weeding can be reduced to four times per year starting in Year 3 and continuing through Year 5.

## Active Enhancement

Within the 23.3 acres of active enhancement, a minimum of three rounds of weed control will be required during the rainy season (November to April) each year. One additional weeding event should be scheduled for early summer, when late-germinating plants become evident.

### 6.2.2 Irrigation Schedule

Following the start of the maintenance period, irrigation (used only in Area 3) shall be applied infrequently but at a rate that ensures survival of installed plantings. Native plants that are infrequently irrigated may grow slower initially but will ultimately be better able to withstand natural variations in rainfall and, therefore, be more successful long-term. Irrigation will be minimized to limit runoff and will be turned off during and following natural rainfall events. In the absence of rain events, irrigation will occur at a minimum of once every 2 weeks for the first 2 years to ensure plant establishment. More frequent irrigation will be used to establish native seedlings after seed is installed at the start of Year 2. In Year 3 irrigation shall only be conducted during the natural rainy season (October through April), as

needed, to mimic an average rainy season. If the restoration specialist determines that there is sufficient native cover and plants are well-established, irrigation may be deactivated prior to the end of Year 3. To demonstrate that vegetation is self-sustaining, the irrigation system must be turned off for at least two years prior to the end of the five-year maintenance/monitoring period.

## 7.0 MONITORING PLAN

### 7.1 PERFORMANCE STANDARDS

Success criteria provide specific standards to evaluate the progress of the restoration effort. Attainment of these standards indicates that an area is progressing toward the habitat functions and services specified by this plan. Success of the restoration area will be determined by comparing planting survivorship, vegetative cover, and native plant recruitment within the restored area to targets that have been established based on visual observations of native habitat in the project vicinity (Table 8). Because DCSS habitat on site recently burned, restoration success will be based not on a reference site but rather on visual observations of native and non-native cover and species composition made in onsite DCSS habitat prior to the Lilac fire.

**Table 8**  
**SUCCESS CRITERIA MILESTONES FOR DCSS RESTORATION (Area 3)**

Criteria	Target				
	Year 1	Year 2	Year 3	Year 4	Year 5
Minimum planting survivorship (percent)	90	80	--	--	--
Minimum native cover (percent) – Restoration	--	--	30	40	50
Minimum native cover (percent) - Enhancement	--	20	--	--	--
Minimum native plant recruitment (number of species)	--	--	--	3	5
Maximum non-native forb cover (percent)	5	5	5	5	5
Maximum non-native grass cover (percent)	20	20	20	30	30
Maximum target invasive forb cover** (percent)	0*	0*	0*	0*	0*
Irrigation	Yes	Yes	Yes	No	No

\* Seedlings of invasive species are expected to volunteer each year; however, no target invasive forbs should be allowed to persist, or drop seed within any restoration or enhancement area.

\*\* Excludes annual grasses; Also applies to 23.3 acres of DCSS active enhancement.

#### 7.1.1 Survivorship

Container plant survival within the DCSS restoration area (Area 3) should be 90 percent of the initial plantings in Year 1 and 80 percent in Year 2. If these targets are not met, dead plants should be replaced unless their function has been replaced by natural recruitment.

#### 7.1.2 Native Cover

Cover by native vegetation within DCSS restoration Area 3 should increase over time and ultimately approach that of the native habitat that occurred in undisturbed DCSS habitat on site prior to the Lilac fire. In order to provide potential aestivation habitat for the arroyo toad and western spadefoot, a lower native cover target (50 percent) is set for DCSS restoration, and at least 30 percent cover by native shrubs.

There are no Year 5 native cover success criteria for active DCSS enhancement areas; however, if native cover at the end of Year 2 is less than 20 percent within the active enhancement areas, then these areas may be re-seeded with a native seed mix at the start of the following rainy season.

### **7.1.3 Native Plant Recruitment**

To demonstrate that restoration Area 3 is self-sustaining, evidence of new seedling establishment of at least three species should be evident by Year 4; by Year 5 this should increase to at least five species.

### **7.1.4 Non-Native Cover**

Given the maintenance schedule for the site, cover by non-native forbs within the DCSS restoration areas should not exceed five percent. Tolerance for non-native grasses (including invasive grasses), which currently dominate most of the proposed DCSS restoration areas, is higher, with a Year 5 limit set at 30 percent.

### **7.1.5 Target Invasive Cover**

Target invasive non-native forbs ranked as moderately or highly invasive by the California Invasive Plant Council (Cal-IPC 2016) should be completely eradicated from the DCSS restoration and enhancement areas each year. The presence of new seedlings of invasive plants is expected since these species occur in surrounding open space; however, no target invasive species shall be allowed to persist, or drop seed, within the restoration areas. Annual grasses listed as highly or moderately invasive do not need to be eradicated, rather they are addressed within the non-native grass cover limit.

### **7.1.6 Irrigation**

To provide evidence that vegetation is self-sufficient, irrigation of the DCSS restoration areas must be shut off at least two years prior to the end of the maintenance/monitoring period.

## **7.2 TARGET FUNCTIONS AND VALUES**

Upon meeting success criteria, the restoration areas will have a net functional lift in habitat values over the existing condition by providing higher quality foraging, aestivation, and nesting habitat as well as greater vegetative cover and microhabitat features.

## **7.3 TARGET ACREAGES**

The target acreages addressed in this plan are the restoration of 35.0 acres and active enhancement of 23.3 acres of DCSS habitat over five years.

## **7.4 MONITORING METHODS**

Monitoring will be carried out by the restoration specialist, beginning with plant/seed orders and cactus salvage as well as all preparation and installation of the restoration/enhancement areas, and continuing through final sign off of the restoration areas, approximately five years after initial installation activities are completed. Monitoring of the 35.0 acres of DCSS restoration and 23.3 acres of DCSS active enhancement will include (1) site preparation/installation monitoring; (2) maintenance monitoring; and

(3) annual technical monitoring. The methods for the annual technical monitoring are provided below in Section 7.4.3.

#### **7.4.1 Site Preparation/Installation Monitoring**

The restoration specialist will coordinate with the installation contractor regarding all plant and seed orders/contract growing. In addition, they will coordinate with the installation contractor to help direct cactus salvage.

The restoration specialist will be on-site regularly during initial discing/mowing/grading, application of pre-emergent herbicide, and installation of erosion control measures, irrigation, and plantings to ensure that activities are being conducted per this plan. The restoration specialist must inspect and authorize each phase of work before the next phase may begin.

Prior to the start of installation, the restoration specialist will document existing site conditions by taking photographs, listing all plants and animals present within the areas proposed for restoration and enhancement and noting any special conditions within the proposed restoration area and enhancement areas. To document the progress of the restoration and enhancement effort, the restoration specialist will identify at least four photographic documentation locations per area. Photo stations will be mapped with a sub-meter accuracy global positioning system (GPS) and plotted on a map. Photos will be used for future comparison with post-installation and annual assessment photos.

#### **7.4.2 Maintenance Monitoring**

Maintenance monitoring of the restoration and enhancement areas will consist of general site inspections focused on visual observations of native plant establishment and growth and other site conditions (e.g., presence of non-native plants, erosion, etc.). Monitoring memos noting any issues with plant establishment, irrigation, sediment control, etc., will be provided as necessary to the installation/maintenance contractor(s) and the project proponent.

#### **7.4.3 Annual Technical Monitoring**

Technical monitoring of the restoration area (Area 3) will include qualitative and, starting in Year 3, quantitative sampling. In Years 1 and 2, sampling will include assessments of container plant survivorship, visual estimates of native cover, non-native cover, target invasive species cover, and native plant recruitment, as well as lists of all plant species observed on site, by area. In addition, wildlife observed or detected during the annual assessment will be documented. The success of the restoration and enhancement efforts will be evaluated by comparing the habitat development with established success criteria (Table 9).

Starting in Year 3, four 50-meter transects will be used to collect data in the DCSS restoration area (Area 3). These transects will be randomly located during the first quantitative sampling event, marked in the field with PVC pipes, and mapped onto Figure 6 using a GPS. Species data will be collected along each transect using the point intercept line transect sampling method (California Native Plant Society's Field Sampling Protocol; Sawyer and Keeler-Wolf 1995). Native, non-native, and invasive plant cover data will be collected by recording all of the species intercepted at each 0.5-meter interval along the length of each transect. Vegetation will be recorded separately for herb (0 to 0.6 meters), shrub (0.6 to

2 meters), and tree (greater than 2 meter) layers. Additionally, areas of potential upland foraging and aestivation habitat for arroyo toad and western spadefoot will also be visually assessed.

DCSS active enhancement areas will be qualitatively assessed each year. Native, non-native, and invasive plant cover will be visually estimated within these four areas during each annual assessment to keep track of habitat development throughout the five years.

Observations of wildlife within the restoration and active enhancement areas will be documented and included in each annual report. No focused wildlife surveys will be conducted. The photo documentation stations established at the start of the restoration effort will be re-photographed each year during the annual assessment to further document the development of the restoration/active enhancement areas.

## 7.5 MONITORING SCHEDULE

### 7.5.1 Site Preparation/Installation Monitoring

The restoration specialist will visit the site just before the start of installation to document existing site conditions. They will be on-site regularly during initial discing/mowing/grading, application of pre-emergent herbicide, and installation of erosion control measures, irrigation, and plantings to ensure that activities are being conducted per this plan. The monitoring schedule is outlined in Table 9; additional monitoring may be needed if there are problems with the installation contractor performance or unexpected difficulties with site preparation.

**Table 9**  
**MAINTENANCE MONITORING SCHEDULE OF DCSS RESTORATION AND**  
**ACTIVE ENHANCEMENT \***

Phase	Schedule
<b>Site Preparation/Installation Monitoring</b>	
Site preparation and installation	10 visits
<b>Maintenance Monitoring</b>	
Year 1 through Year 3	8 visits
November to April	Monthly
May to October	June and August
Years 4 and 5	4 visits, with an emphasis on spring and early summer
<b>Annual Technical Monitoring</b>	
Once per year	May

\* This schedule is the minimum monitoring frequency; additional monitoring may be required if there are problems with installation or maintenance contractor performance, unexpected difficulties with site preparation, or issues with habitat establishment.

### 7.5.2 Maintenance Monitoring

Following installation of irrigation and plantings in the restoration areas, the restoration specialist will monitor and direct maintenance activities in the 35.0 acres of DCSS restoration and 23.5 acres of enhancement for the 5-year maintenance and monitoring period. In Years 1 through 3, visits will be conducted monthly from November through April (to cover the peak establishment and growth period for upland vegetation) and twice in the remainder of the year, for a total of eight visits per year (Table 9). During Years 4 and 5 monitoring will be conducted four times per year, with an emphasis on

the spring and summer growing season. This monitoring schedule is the minimum; more frequent inspections may be necessary if there are problems with contractor performance or habitat development.

### **7.5.3 Annual Technical Monitoring**

The restoration specialist will conduct annual technical monitoring of the restoration and active enhancement areas in May of each year during the five-year maintenance and monitoring period. The visits are scheduled to coincide with the peak of the growing season for most native upland herbs and shrubs. The exact timing of the visits will depend on site and weather conditions.

## **7.6 MONITORING REPORTS**

An annual report including any qualitative and/or quantitative analysis will be prepared each year during the five-year monitoring period and submitted to the County and Wildlife Agencies. Monitoring field data shall be included as an addendum to each report.

Any significant issue or contingency that arises on the job site (e.g., major plant survival issues, fire, or flooding) shall be reported in writing to the County within two weeks from the date of the incident. Accompanying the report shall be a plan for remediation, with an implementation schedule and monitoring schedule.

## **8.0 COMPLETION OF COMPENSATORY MITIGATION**

The County and Wildlife Agencies will be notified of completion of the restoration effort through submittal of a final (Year 5) monitoring report. After receipt of the final monitoring report, the County and Wildlife Agencies may inspect the restoration/enhancement areas to determine the success of the restoration effort. If the restoration meets all success standards by the end of the five-year maintenance and monitoring period, then the restoration will be considered a success; if not, the maintenance and monitoring program may be extended until the standards are met, subject to County and Wildlife Agency discretion. Specific remedial measures (approved by the County and Wildlife Agencies) will be used during any extension. Monitoring extensions will be done only for areas that fail to meet final success criteria. This process will continue until all Year 5 success criteria are attained or until the County, together with the Wildlife Agencies, determines that supplemental measures are appropriate. Should the restoration effort meet all goals prior to the end of the 5-year monitoring period, the County and Wildlife Agencies, at their discretion, may terminate the monitoring effort. If requested, a site visit may be conducted with the County and/or Wildlife Agencies following Year 3 and/or Year 5 to verify site conditions.

## **9.0 CONTINGENCY MEASURES**

### **9.1 INITIATING CONTINGENCY MEASURES**

If the County or Wildlife Agencies determine upon receipt of any of the annual monitoring reports that the restoration effort is not meeting success standards, they shall notify the project proponent in writing

that the restoration effort may require additional measures for successful implementation. The project proponent shall then have 30 days to respond to the notification. During this period, the project proponent may discuss alternatives with the County and Wildlife Agencies.

## **9.2 ALTERNATIVE LOCATIONS FOR CONTINGENCY COMPENSATORY MITIGATION**

Sufficient area for contingency restoration is present at the project site. If the success criteria are not being met, the County and Wildlife Agencies will work together with the project proponent to reach an alternative mutually acceptable solution.

## **9.3 FUNDING**

The project proponent, Ocean Breeze Ranch, LLC, shall be responsible for all costs associated with any remedial measures.



## 10.0 LIST OF PREPARERS

The following individuals contributed to the preparation of this report.

Sally Trnka*†	M.S., Biology, emphasis Ecology, San Diego State University, 1998 B.S., Biological Sciences, University of California-Davis, 1992
Amy Lee	B.A., Environmental Studies, University of California, Santa Barbara, 2007 B.A., History of Art and Architecture, Emphasis in Architecture & Environment, University of California, Santa Barbara, 2007
Rebecca Kress	B.A., Geography, State University of New York, Geneseo, 1999
Stacy Nigro‡	B.S., Forest Resources and Conservation (emphasis Wildlife Ecology), University of Florida, 1994
Aleksandra Richards	M.A., International Relations, University of San Diego, 2010 B.A., Communications, Emphasis in Print Journalism, California State University Fullerton, 2008

\*Primary report author

†County-approved Revegetation Planning Consultant

‡County-approved Biological Consultant

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