

FINAL

COUNTY OF SAN DIEGO  
MULTIPLE SPECIES CONSERVATION  
PROGRAM

SOUTH COUNTY SUBAREA PLAN  
ANNUAL REPORT  
YEAR 22

**Reporting Period: January 1, 2019 – December 31, 2019**

**Report Date: July 8, 2020**



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# ACRONYMS

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**BLM** - Bureau of Land Management

**BMO** - Biological Mitigation Ordinance

**Caltrans** - California Department of Transportation

**CDFW** - California Department of Fish and Wildlife

**CEQA** - California Environmental Quality Act

**CNRA** – California Natural Resources Agency

**COI** - Certificate of Inclusion

**County** - County of San Diego

**DPR** - County of San Diego Department of Parks and Recreation

**EMP** - Environmental Mitigation Program

**HabiTrak** - Habitat Tracking Reporting, State of California instrument

**IA** - Implementing Agreement

**JPA** – Joint Powers Authority

**MHPA** - Multiple Habitat Planning Area

**MSCP** - Multiple Species Conservation Program

**NCCP LAG** - Natural Community Conservation Planning Local Assistance Grant

**PAMA** - Pre-Approved Mitigation Area

**PDS** - County of San Diego Department of Planning & Development Services

**POM** - Preserve Owner/Manager

**PPM** - Pacific Pocket Mouse

**RMP** - Resource Management Plan

**ROE** - Right-Of-Entry Permit

**SANDAG** - San Diego Association of Governments

**SDMMP** - San Diego Management and Monitoring Program

**SDRC** – San Diego River Conservancy

**SDRPF** - San Diego River Park Foundation

**Subarea Plan** - South County Subarea Plan

**TMP** - Targeted Monitoring Plan (formerly known as Comprehensive Monitoring Plan)

**USFWS** - United States Fish and Wildlife Service

**USGS** - United States Geological Survey

**WCB** – Wildlife Conservation Board

**Wildlife Agencies** - used collectively for the USFWS and CDFW

# EXECUTIVE SUMMARY



## MULTIPLE SPECIES CONSERVATION PROGRAM SUBAREA PLAN

**79,188** acres preserved

**80%** of MSCP Preserve goal achieved

**13,099** acres County-owned, managed or funded

**30** County Parks and Preserves



## REPORTING YEAR HIGHLIGHTS

**567** Acres of new County  
MSCP Preserve acquisitions

**41** MSCP covered species  
monitored or documented in  
County Preserves and private  
mitigation lands

**6** Grant-funded  
management projects

**9** MSCP Preserve  
management partnership  
projects

**14** MSCP Preserve  
monitoring and research  
partnerships

This is the 22nd annual report for the County of San Diego (County) Multiple Species Conservation Program's (MSCP) South County Subarea Plan (Subarea Plan) adopted by the County Board of Supervisors on October 22, 1997. This report was prepared in conformance with Section 14.2 of the Implementing Agreement (IA) executed between the County, California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service ([USFWS], collectively referred to as Wildlife Agencies) on March 17, 1998. This report accounts for MSCP Subarea Plan implementation from January 1 through December 31, 2019 and summarizes key accomplishments for the permit term. Topics include the following.

- Preserve assembly
- Covered projects
- Habitat gain and loss
- Species and habitat conservation
- Preserve management
- Preserve monitoring and research
- Financial summary
- Program administration

The MSCP Subarea Plan is critical for quality of life within the unincorporated county because it conserves the region's unique native habitats and wildlife for future generations to enjoy. Residents and visitors alike learn about the vital role of conservation through a multitude of environmental education activities that foster important connections with nature. The MSCP Subarea Plan also protects the diversity of native plants and animals, including threatened and endangered species, works across political boundaries in a regional conservation effort, and protects watersheds and water quality. It ensures compliance with the federal Endangered Species Act and associated Habitat Conservation Plan permits, state Endangered Species Act, state Natural Community Conservation Planning Act and associated permits/authorizations; and it accommodates future growth by streamlining building regulations.

## Preserve Assembly

The MSCP Subarea Plan Preserve (MSCP Preserve) totals 79,188 acres with 80% of the 98,379-acre conservation target achieved. County-owned, managed, or funded conserved lands in the MSCP Preserve totals 13,099 acres (17% of MSCP Preserve).<sup>1</sup> Within the MSCP Preserve, the County owns or manages 30 properties. These lands are managed for the benefit of the MSCP covered species and habitats. During this reporting period, January 1, 2019 to December 31, 2019, there were 623 acres added to the MSCP

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<sup>1</sup> County conserved lands includes 12,543 acres owned or managed by the County. The County contributed to the acquisition of an additional 556 acres owned by local partners and nonprofits. This acreage (12,543 + 556 = 13,099) is collectively referred to as the County conserved lands.

Preserve.<sup>2</sup> The County acquired 567 acres, all of which were added to the MSCP Preserve. This included new lands added to Ramona Grasslands Preserve (121 acres), Dictionary Hill Preserve (2 acres) and Sycamore Canyon and Goodan Ranch Preserve (20 acres). Two new County Preserves, Skyline Preserve (262 acres) and Iron Mountain Preserve (162 acres), were added. USFWS added 45 acres to the MSCP Preserve. Private land dedication required as a County condition of private development added 11 acres.



**Sunrise at Sweetwater Regional Park (Photo credit: Adair Flores)**

The MSCP Subarea Plan has an overall preservation goal of 98,379 acres. The MSCP Preserve is assembled through a combination of baseline open space areas that existed in 1997, lands preserved as mitigation from development permit projects, and public agency and non-profit conservation partner acquisitions.<sup>3</sup> Preservation is prioritized within areas identified as having habitat with high biological value or within a habitat linkage.<sup>4</sup> These are the Pre-Approved Mitigation Area (PAMA) and the hardline preserve areas. Hardline preserve areas are regions where landowners have negotiated with the Wildlife Agencies and County for areas that will be set aside as MSCP Preserve.

The MSCP Preserve acreage is equal to the baseline acres plus acres gained within PAMA and hardline preserve areas from private mitigation and public and non-profit conservation partner acquisitions. The Wildlife Agencies have approved complementary County acquisitions outside the 1997 PAMA to be

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<sup>2</sup> The acres added to the MSCP Preserve are all MSCP Subarea Plan acquisitions.

<sup>3</sup> All acquisitions are from willing sellers.

<sup>4</sup> Habitat linkages are corridors between biological core resources areas. They have habitat characteristics that allow plants and animals to move between biological core resource areas.

counted in the MSCP Preserve as they contribute to the biological goals of the MSCP. In general, private mitigation or acquisitions outside PAMA or hardline preserve areas is complimentary conservation and does not count toward the MSCP Preserve.

## Covered Projects

The County permitted 126 development projects in the reporting period in the Subarea Plan Area. This included 125 single-family residential projects and one commercial project. No agricultural exemptions were issued during the reporting period.



**Waterfall at Los Peñasquitos Canyon Preserve.**

## Habitat Gains and Losses

There was a total of 922 acres of habitat gains and 324 acres of habitat losses in the reporting period. Preservation within areas identified as having habitat with high biological value, PAMA and the hardline preserve areas, was 623 acres. There was an additional 299 acres of complementary conservation outside these areas. Habitat losses inside PAMA and hardline preserve areas total 87 acres and 237 acres outside.

Cumulatively, the MSCP Subarea Plan is in compliance with the rough step analysis, that habitat gains exceed habitat losses. Rough step compares total gains and losses within and outside of PAMA and hardline preserve areas categorized by total acres and habitat types. The purpose of rough step is to ensure that the conservation of high-quality habitat and development in lower quality habitat occurs in roughly the same amounts at the same time. High-quality habitat is considered as that within the PAMA or hardline preserve areas, while low-quality habitat is not. Cumulatively, the majority of habitat gains occurred within PAMA and hardline preserve areas, while the majority of habitat losses occurred outside

of PAMA and hardline preserve areas. This indicates that the overall conservation goals are being met to create a functional MSCP Preserve as high-quality habitat within PAMA and hardline preserve areas is being conserved and lower quality habitat is being developed.

## Species and Habitat Conservation

A total of 30 County-owned or managed parks and preserves (County Preserves) contribute to the MSCP Subarea Plan landscape, habitat, and species objectives.<sup>5</sup> They are part of the MSCP Preserve and are managed for the benefit of the MSCP covered species and habitats. MSCP Subarea Plan objectives ensure the persistence of habitat linkages for wildlife movement,<sup>6</sup> critical biological resource areas for MSCP plant and animal habitat, and MSCP plant and animal occurrences in these areas. County Preserves span 11 of 16 biological core resource areas and protect habitat linkages. They contribute to conservation goals of each of the target segments (Lake Hodges, South County, North Metro-Jamul-Lakeside, and South Metro-Jamul-Lakeside). They conserve 17 of 18 target habitats with chaparral and coastal sage scrub being the most widespread in County Preserves. Of the 85 MSCP covered species, 42 are documented in County Preserves (**Appendix J-1**). Together with the federal, state, local partners, and private mitigation conservation, the County and its partners contribute to preservation of the unique biological resources present in San Diego County.

## Preserve Management

The County Preserves' stewardship and adaptive management ensures biological value and function of natural resources are maintained or enhanced. Stewardship includes actions such as habitat restoration, fire management, environmental education, and invasive, non-native plant and animal control. Adaptive management is using preserve monitoring to inform stewardship. For example, if monitoring finds invasive, non-native plants increasing in extent and negatively impacting MSCP covered species and habitats, stewardship actions would control the invasive, non-native plants. Resource Management Plans (RMPs) govern preserve management for County Preserves. The County has prepared 16 RMPs for County Preserves in the MSCP Subarea Plan Area and is updating existing RMPs for County Preserves that have new additions and preparing new RMPs for newer acquisitions (such as Dictionary Hill Preserve, which was acquired in 2018).

**Ranger reports** on 25 County Preserves documented habitat restoration, access control, fire management, environmental education, and invasive, non-native plant and animal control actions completed to benefit MSCP covered species and habitats.

**Grant-funded projects** across six County Preserves benefited MSCP covered species, such as coastal cactus wren,<sup>7</sup> Belding's orange-throated whiptail, northern harrier, Cooper's hawk, arroyo toad, and southwestern pond turtle, and included habitat restoration, access control, and invasive, non-native plant

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<sup>5</sup> The Annual Report provides additional detail for a subset of the County Preserves (the open space lands owned or managed by the County).

<sup>6</sup> Habitat linkages are corridors between biological core resource areas of high biological value. They have habitat characteristics that allow plants and animals to move between biological core resource areas.

<sup>7</sup> The MSCP Subarea Plan lists the San Diego cactus wren as an MSCP covered species. At the time of adoption of the MSCP Subarea Plan, the San Diego cactus wren was identified as a sub-species of the coastal cactus wren. This is no longer the case. The San Diego cactus wren is now commonly known as the coastal cactus wren and is an MSCP covered species.

control. Seven grants totaling \$2,613,334 fund this work. The grant funds sources were two San Diego Association of Governments (SANDAG) *TransNet* Environmental Mitigation Program (EMP) grants, one California Natural Resources Agency Proposition 84 River Parkways grant, one CDFW Natural Community Conservation Planning Local Assistance Grant, one CDFW Proposition 1 grant, one San Diego River Conservancy Proposition 1 grant, and one Wildlife Conservation Board (WCB) Proposition 68 grant.

**Preserve management partners** implemented nine management projects across nine County Preserves to benefit riparian, stream, wetland, coastal sage scrub, and chaparral habitats. Partners were City of Chula Vista, California Department of Transportation (Caltrans), San Diego River Park Foundation (SDRPF), Alta Terra, River Partners, Wildlife Release, Del Dios Habitat Protection League, and San Dieguito River Valley Conservancy.

**Private mitigation lands** management was documented for 12 properties. This was the first year of reporting for RMP 16-004 Otay Crossings Commerce Park, where San Diego Habitat Conservancy commenced management in January 2018.

**Environmental education** informs the public about the County's natural and cultural resources. County Park Rangers led a wide variety of educational programs for over 3,000 park visitors in 2019. Some of these educational programs included Geology Science Night, "It's How We Live" Fair, School Visits, Moon Rise Hikes, a "Go Play Get Fit" special event, Ranger-led Hikes, Display Animal Interpretation, Nature Explorers Program, and our award winning Discovery Program, which is offered at 8 County Parks. Environmental education highlights are as follows.

- *Nature Explorers Program* is a five-year plan for increasing local awareness of resources and recreational opportunities through strategic intervention. Program curriculum is designed to inform and inspire San Diegans through awareness of environmental issues. The Nature Explorers Program provided a total of 82 outdoor excursions in the year 2019 to a total of 175 participants ages 10-17. Programming included a total of 21 daytrips, such as local hikes, and 61 overnights to County Parks and Joshua Tree National Park. The County Department of Parks and Recreation (DPR) also partnered with local non-profit Earth Discovery Institute to get an insider look at the San Diego Bay National Wildlife Refuge, San Diego National Wildlife Refuge Interpretive Loop, and the Crestridge Ecological Reserve. Representatives from the Bureau of Land Management (BLM) and USFWS along with Earth Discovery Institute staff helped facilitate environmental education programs and service-learning projects on site for Nature Explorers Program participants. The Nature Explorers Program successfully matriculated 16 teen participants to the Nature Mentors tier, where individuals participated in leadership trainings and peer leadership roles on various trips. Most notably, for their work, DPR was re-awarded Habitat Conservation Funding for an additional five years in October of 2019 to extend programming through the year 2024.
- *Discovery Program* assists hundreds of educators and elementary school students to explore the wealth of nature at local parks and in their own backyards, at no cost to participants. The curriculum correlates with Next Generation Science Standards and includes the subjects of plants and photosynthesis, astronomy, birds, Native Americans, geology, insects, and general ecology. The hands-on courses include a pre-field trip ranger visit to the school, activities for classroom use, a field trip and ranger led hikes, and post-field trip activities for classroom and home use. The program is

found in eight parks throughout the County (Guajome Regional Park, Felicita County Park, San Dieguito County Park, Los Peñasquitos Canyon County Preserve, Louis A. Stelzer County Park, El Monte County Park, Flinn Springs County Park, and Otay Lakes County Park). Five of the Discovery Program parks are located in the MSCP Subarea Plan Area. Approximately 45 schools visited their local County parks through this program in 2019.

## **Preserve Monitoring and Research**

MSCP covered species and habitat monitoring on County Preserves includes Targeted Monitoring Plan (TMP) monitoring, baseline inventory surveys, research partnerships, and private mitigation lands monitoring. These efforts monitored or documented 41 MSCP covered species in County Preserves and private mitigation lands.

**TMP monitoring** was conducted for 10 MSCP covered species across six County Preserves. An additional 14 MSCP covered species were documented during these monitoring efforts. Raptor surveys and annual residual dry matter monitoring was also conducted on Ramona Grasslands.

**Baseline inventory surveys** were performed for three properties (Dictionary Hill Preserve, Sycamore Canyon and Goodan Ranch Preserve southern parcel, and San Vicente Connection). The southern parcel and San Vicente Connection properties are both part of Sycamore Canyon and Goodan Ranch Preserve. Surveys detected nine MSCP covered species, which were San Diego goldenstar, variegated dudleya, willow monardella, San Diego barrel cactus, Belding's orange-throated whiptail, Cooper's hawk, coastal California gnatcatcher, southern California rufous-crowned sparrow, and southern mule deer.

**Preserve monitoring and research partnership** projects totaled 14 in the reporting year across 24 County Preserves. These projects inform stewardship and adaptive management in County Preserves and the MSCP Preserve. Monitoring and research topics included American badger, golden eagle, invasive shothole borer, and a variety of other MSCP covered species and habitats. Research occurred on County Preserves through the County's right-of-entry (ROE) permit process. ROE's were requested by federal and state agencies, local universities, museums, and environmental organizations.

**Private mitigation lands** monitoring detected 23 MSCP covered species across 12 properties.



**Wildflowers at Sycamore Canyon and Goodan Ranch Preserve. (Photo Credit: Louis Chertkow)**

## Financial Summary

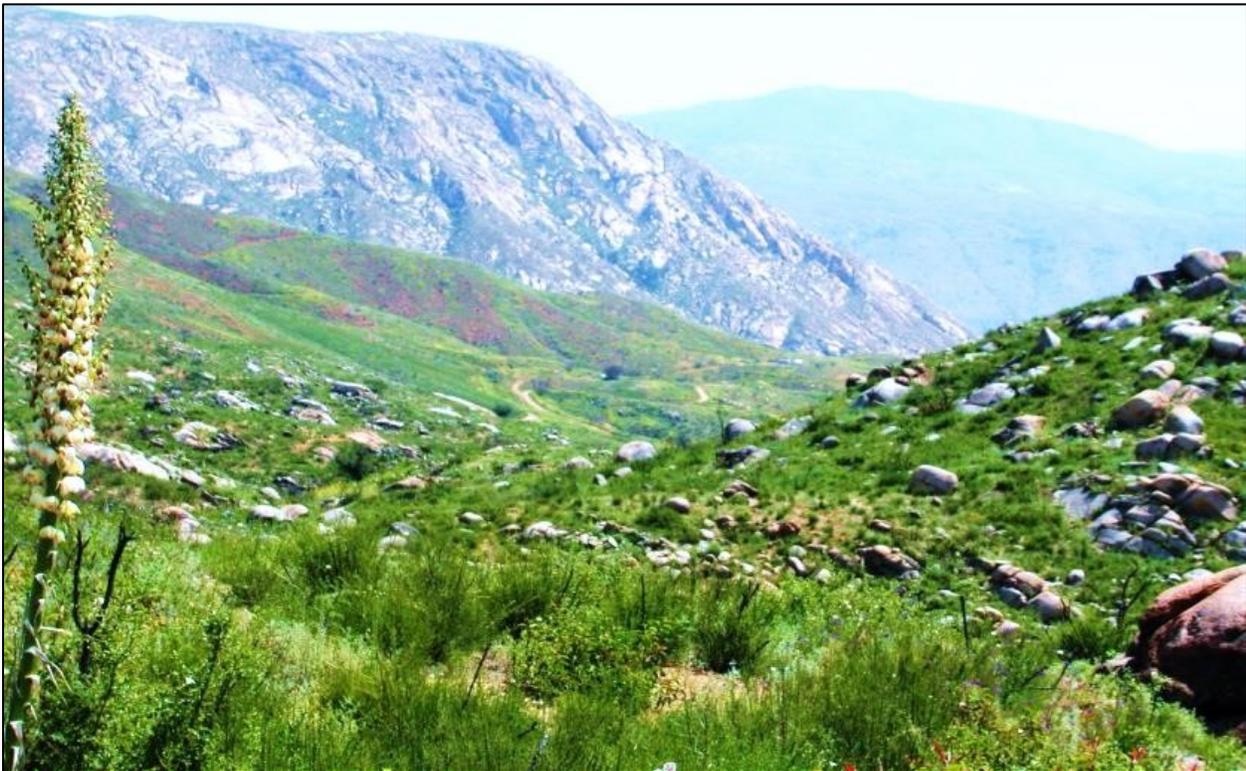
The County Board of Supervisors appropriates \$10 million for acquisition, management, and monitoring of open space throughout the adopted Subarea, draft North County MSCP Plan Area, and proposed East County MSCP Plan Area. In Fiscal Years 2018-2019 and 2019-2020, \$7.5 million was appropriated for land acquisition and \$2.5 million was appropriated for County Preserves' management and monitoring.

**Land acquisition** funds land purchases, land stewardship, and baseline inventory surveys. During the reporting period, there were 567 acres of new acquisitions added to County Preserves. Nearly \$3 million of County-allocated MSCP funds were used to purchase these properties. An additional \$666,000 of grant funding was leveraged. Since 1998, the County has invested over \$48 million which leveraged over \$35 million of other funding to acquire 8,189 acres, including 556 acres managed by County partners.

**Management and monitoring** funds staff positions, contracting resources, and capital expenses dedicated solely to MSCP monitoring and stewardship activities. MSCP monitoring staff oversee MSCP covered species and habitat monitoring. County Rangers provide operational “boots on the ground” to manage County Preserves. In this reporting period, approximately \$7.1 million was spent to successfully

manage and maintain the County’s MSCP open space lands. MSCP monitoring allocations funded two staff positions and implementation of monitoring activities. MSCP monitoring activities included biological monitoring in County Preserves via the County’s TMP, updating the TMP to include additional County Preserves, and cactus wren habitat restoration projects. MSCP stewardship allocations funded 13 staff positions, implementation of stewardship activities, and capital costs (e.g., public access controls such as fences and gates). Stewardship activities include habitat restoration, access control, fire management, environmental education, and invasive, non-native plant and animal control. Over \$2.6 million of grant funding augments annual appropriations for projects spanning Fiscal Year 2016-2017 thru Fiscal Year 2021-2022.

Management and monitoring on private mitigation lands is funded through property specific endowments established during the RMP approval process. The health of these endowments and use of these funds are reported in the RMP annual reports.



**El Capitan Preserve is within the MSCP Subarea Plan Preserve.**

## **Program Administration**

The County coordinates implementation of the MSCP Subarea Plan with the Wildlife Agencies.

The County continued work to add the federally endangered Quino checkerspot butterfly to the list of species covered by the MSCP Subarea Plan in 2019. Research was conducted on adaptive management, changed circumstances, unforeseen circumstances, and mitigation required for the Quino checkerspot butterfly amendment. Work continues on the amendment into 2020.

# CHAPTER 1

## Introduction

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**Iron Mountain is a new County acquisition added to the MSCP Subarea Plan Preserve in 2019.**

The Annual Report provides an update on the status of the Multiple Species Conservation Program (MSCP) South County Subarea Plan (Subarea Plan) for the current reporting period (January 1, 2019 to December 31, 2019) and overall progress to date. The MSCP Subarea Plan was adopted by the County of San Diego (County) Board of Supervisors on October 22, 1997. The MSCP Subarea Plan is a federal Habitat Conservation Plan permit and state Natural Community Conservation Plan permit that phases land conservation with regional development for a 50-year permit term within the Subarea. This reporting period marks the 22nd year of implementing the MSCP Subarea Plan.

The MSCP Subarea Plan is critical for quality of life within the unincorporated county because it conserves the region's unique native habitats and wildlife for future generations to enjoy. Residents and visitors alike learn about the vital role of conservation through a multitude of environmental education activities that foster important connections with nature. The MSCP Subarea Plan also protects the diversity of native plants and animals, including threatened and endangered species, works across political boundaries in a regional conservation effort, and protects watersheds and water quality. It

ensures compliance with the federal Endangered Species Act and associated Habitat Conservation Plan permits, state Endangered Species Act, state Natural Community Conservation Planning Act and associated permits/authorizations; and it accommodates future growth by streamlining building regulations.

The Annual Report is prepared in conformance with Section 14.2 of the Implementing Agreement (IA) executed between the County, California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service ([USFWS], collectively referred to as Wildlife Agencies) on March 17, 1998. It is organized as follows.

## **Chapter 2      Preserve Assembly**

The MSCP Subarea Plan will assemble a 98,379-acre MSCP Subarea Plan Preserve (MSCP Preserve) for the benefit of rare and endangered plants and animals and their habitats. Chapter 2, *Preserve Assembly*, summarizes land acquisitions and conveyances into the MSCP Preserve in the reporting year and cumulatively. The Baseline Preserve, land already preserved at the time of the MSCP Subarea Plan adoption, is quantified. Conservation lands acquired by Wildlife Agencies, Bureau of Land Management (BLM), non-profit partners, and County are documented for the reporting year and cumulatively. Mitigation lands conserved by private entities and mitigation banks providing mitigation for MSCP covered species are also documented. Together, these lands comprise the MSCP Preserve and provide regional conservation for plants, animals, and their habitats in the county.

## **Chapter 3      Covered Projects**

The County permits development under the MSCP Subarea Plan for private and public projects (covered projects). Chapter 3, *Covered Projects*, documents covered projects permitted by the County in the reporting year under the MSCP Subarea Plan. Project reporting includes clearing for single-family residences on small parcels, agricultural exemptions, and building permits.

## **Chapter 4      Habitat Gains and Losses**

Annual tracking of Subarea gains, losses, management, and monitoring is required by Section 14.2 of the IA dated March 17, 1998, and the Habitat Conservation Plan and Natural Community Conservation Plan permits. Chapter 4, *Habitat Gains and Losses*, documents the cumulative habitat gain from MSCP Preserve assembly and habitat loss from covered projects. All habitat gains and losses are reported annually to CDFW and tracked in a central database called *HabiTrak*. The HabiTrak reports generated by CDFW are used to track permit compliance and ensure that *Rough Step* permit requirements are being met. Rough Step requires that habitat gain occurs ahead of or in-step with habitat loss. It also examines the quality and types of habitats gained and lost.

## **Chapter 5      Species and Habitat Conservation**

The County Preserves owned and managed by the County conserve 48 MSCP covered species and their habitats. County Preserves refers to County-owned and managed parks and preserves that contribute to the MSCP Preserve. The County Preserves are managed for the benefit of the MSCP covered species and habitats. Chapter 5, *Species and Habitat Conservation*, evaluates how the County Preserves meet the

MSCP objectives and monitors compliance with landscape-level, habitat-level, and species-level conservation targets identified in the MSCP Subarea Plan. The number of County Preserves established and acres preserved is summarized for the reporting year and cumulatively. The County Preserves contribution to segment goals, biological resource core areas, and habitat linkages is quantified. Habitats, vegetation communities important to MSCP covered species, conserved in County Preserves are quantified and contribution to MSCP Subarea Plan targets assessed. MSCP covered species conserved in County Preserves are documented and contribution to MSCP Subarea Plan occurrence and habitat conservation assessed. These analyses evaluate compliance with MSCP Subarea Plan objectives.

## **Chapter 6      Preserve Management**

The County Preserves are managed for the benefit of MSCP covered species. Chapter 6, *Preserve Management*, documents stewardship, management, and education implemented on County Preserves, Otay Ranch Preserve, and private mitigation lands. Resource Management Plans (RMPs) incorporate baseline inventory surveys and provide management directives for MSCP covered species and habitats. Annual work plans direct resources to implement management actions. Habitat restoration, access control, fire management, environmental education, and invasive, non-native plants and animal control actions reported by County rangers and consulting staff are summarized for County Preserves, and MSCP covered species and habitats benefited identified. These same actions and benefits are summarized for grant-funded management projects, preserve management partnerships, Otay Ranch Preserve, and private mitigation lands.

## **Chapter 7      Preserve Monitoring and Research**

The County Preserves are monitored to determine the effectiveness of habitat conservation and management actions for MSCP covered species and habitats. Chapter 7, *Preserve Monitoring and Research*, summarizes MSCP covered species and habitat monitored or documented. The Targeted Monitoring Plan (TMP) monitors of a sub-set of County Preserves and informs adaptive management. TMP results are provided for the target MSCP covered species. Grant-funded monitoring projects, monitoring and research partnerships, Otay Ranch Preserve monitoring, and private mitigation lands monitoring descriptions and results are provided. Monitoring results are used to inform updates of RMPs, TMPs, and annual work plans.

## **Chapter 8      Financial Summary**

The County funds acquisition, management, and monitoring of County Preserves. Chapter 8, *Financial Summary*, summarizes County and grant funding used to implement its MSCP Subarea program. Funding sources include the General Fund, Otay Ranch Preserve Community Facilities District 97-2, and grants.

## **Chapter 9      Program Administration**

The County works with regional partners to implement and update the MSCP Subarea Plan. Chapter 9, *Program Administration*, reports key accomplishments, coordination efforts, minor and major amendments, and map updates.

## CHAPTER 2

### Preserve Assembly



**Oakoasis Preserve is over 400 acres and supports MSCP covered species such as Lakeside ceanothus, Blainville’s horned lizard, and southern mule deer.**

The MSCP Subarea Plan Preserve (MSCP Preserve) through December 31, 2019 totals 79,188 acres and 80% of the 98,379-acre conservation target. It is comprised of land owned or managed by the County, Wildlife Agencies, BLM, local partners and non-profits, and private mitigation. In the reporting year, January 1, 2019 to December 31, 2019, 623 acres were added to the MSCP Preserve. This includes 567 acres preserved by the County, 45 acres preserved by USFWS, and 11 acres preserved by private mitigation. The MSCP Preserve benefits MSCP covered species and habitats.

### 2.1 Preserve Assembly Status

The MSCP Preserve totals 79,188 acres with 80% of the 98,379-acre preservation goal achieved (**Table 1**). The County, Wildlife Agencies, BLM, local and non-profit partners, and private entities own and

manage MSCP Preserve lands. The MSCP Preserve is assembled through a combination of baseline open space areas that existed in 1997, lands preserved as mitigation from development permit projects, and public agency and non-profit conservation partner acquisitions from willing sellers. *Historical Baseline Preserve* is land conserved prior to MSCP Subarea Plan adoption in 1997. It includes County-owned, -managed, or -funded lands (5,466 acres); Wildlife Agencies and BLM lands (32,600 acres); and private mitigation areas (7,755 acres). *Conserved lands since 1998* include lands preserved by these same entities, plus lands conserved by local and non-profit partners. Preservation is prioritized within areas identified as having habitat with high biological value or as habitat linkages, which include the Pre-Approved Mitigation Area (PAMA) and the hardline preserve areas.<sup>8</sup> MSCP Preserve goals are split between public acquisitions (including local/non-profit partners) and private mitigation with each having a preserve goal.<sup>9</sup>

The MSCP Preserve acreage is baseline acres plus acres gained within PAMA and hardline preserve areas from private mitigation and public and non-profit conservation partner acquisitions. The Wildlife Agencies have approved complementary County acquisitions outside the 1997 PAMA se areas to be counted in the MSCP Preserve as they contribute to the biological goals of the MSCP. In general, private mitigation or acquisitions outside PAMA or hardline preserve areas is complimentary conservation and does not count toward the MSCP Preserve.

In addition to the 98,379-acre preservation acreage goal, the MSCP Subarea Plan also requires that the MSCP Preserve function for covered species by conserving specific wildlife corridors and habitat types. The County and the Wildlife Agencies will continue to look at potential gaps within PAMA and hardline preserve areas to guide future acquisitions and private mitigation opportunities to ensure a functional MSCP Preserve.

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<sup>8</sup> Hardline preserve areas are regions where landowners have negotiated with the Wildlife Agencies and County for areas that will be set aside as MSCP Preserve.

<sup>9</sup> Table 1, The *Historical Baseline Preserve* and *Conserved Lands Since 1998* do not add up to the total MSCP Preserve, as a subset of *Historical Baseline* is also potentially counted by some agencies in the *Conserved Lands Since 1998*. Record keeping has evolved during MSCP Subarea Plan implementation. HabiTrak data and approved County complementary acquisitions are used to determine the MSCP Preserve size.

TABLE 1. SUMMARY OF MSCP SUBAREA PLAN PRESERVE ASSEMBLY STATUS

Landowner	MSCP Preserve Goals (acres)	2018 MSCP Preserve (acres)	2019 MSCP Preserve Gain (acres)	2019 MSCP Preserve Total (acres)	% Achieved
<b>Historical Baseline Preserve</b>					
County	5,461	5,466 <sup>a</sup>	-	5,466	100%
Federal and State	32,600	32,600	-	32,600	100%
Private	7,755	7,755	-	7,755	100%
<b>Total</b>	<b>45,816</b>	<b>45,821</b>	<b>-</b>	<b>45,821</b>	<b>100%</b>
<b>Conserved Lands Since 1998</b>					
<b>Public Acquisitions</b>					
Federal and State		24,857	45	24,902	
County <sup>a</sup>		7,066	567	7,633	
Local/non-profit partners		3,162	0	3,162	
<b>Total</b>	<b>18,850</b>	<b>35,085</b>	<b>612</b>	<b>35,697</b>	<b>191%</b>
<b>Private Mitigation</b>					
Dedicated Within Hardline	11,563	4,210	0	4,210	
Dedicated Outside Hardline	22,150	2,067	11	2,078	
<b>Total</b>	<b>33,713</b>	<b>6,277</b>	<b>11</b>	<b>6,288</b>	<b>19%</b>
<b>MSCP Preserve Total<sup>b</sup></b>					
<b>Total</b>	<b>98,379</b>	<b>78,565</b>	<b>623</b>	<b>79,188</b>	<b>80%</b>

## NOTES:

<sup>a</sup> County acquisitions adjusted to reflect previously reported MSCP Preserve acreage.

<sup>b</sup> Baseline Preserve acres may potentially be included in the “Conserved Lands – Public Acquisitions” total acreage. Therefore, the MSCP Preserve Total acreage is derived from summing Appendix F, *Summary of Habitat Losses and Gains*. “Cumulative Gain” total and the 2016 through 2019 approved additions to the MSCP Preserve that have not been formally designated in HabiTrak.

SOURCES: 2018 Annual Report and 2019 HabiTrak report *Summary of Project Gains* included in Appendix C, *Summary of MSCP Gains*.

## 2.2 Baseline Preserve

The MSCP Preserve includes baseline open space acreage that was conserved prior to MSCP Subarea Plan adoption in 1997. **Table 2** shows the historical breakdown, by landowner, of the 45,821-acre Baseline Preserve.

**TABLE 2. MSCP SUBAREA PLAN HISTORICAL BASELINE PRESERVE**

Landowner	Acreage
County	5,466
Federal and State	32,600
Private	7,755
<b>Total Baseline Preserve</b>	<b>45,821</b>

SOURCE: 2018 Annual Report

## 2.3 Public and Partner Acquisitions

Public and partner acquisitions in the MSCP Preserve total 35,697 acres owned and managed (**Table 3**). Within the MSCP Subarea Plan boundaries, land owned and/or managed by the Wildlife Agencies, local partners and the County total 52,846 acres. Section 10.4 of the IA states that the estimated conserved acreages through public acquisition to complete the MSCP Preserve “are approximate since the amount, timing, and location of land conserved through regulations, private mitigation and public acquisition are not exactly known.” The MSCP Subarea Plan estimated that 18,850 acres would need to be conserved through public acquisitions to adequately assemble the MSCP Preserve. The MSCP Subarea Plan outlines that the 18,850 would be equally split between 9,425 acres acquired by the County with local funds and 9,425 acres acquired with federal and state funds. Total acquisitions, 36,085 acres, exceeds the public acquisitions goal of 18,850 acres.

The County and the Wildlife Agencies maintain up-to-date, accurate accounting of their acquisitions and acquisitions completed by partnering agencies which are reported to the HabiTrak database. Tracking of public, local government, and non-profit partners’ acquisitions is completed using both the CDFW maintained HabiTrak database and its subsequent reports that are found in **Appendices D, G, H, and I**, as well as manual accounting, which can be found in **Appendices B and C**.

The County has made several manual adjustments to HabiTrak accounting from 2016-2019 with approval from the Wildlife Agencies. In 2016, the County and the Wildlife Agencies concluded an audit of conserved land from public acquisition. As a result of the audit, 2,479 acres of County acquisitions were added to the MSCP Preserve, with 5 acres allocated to the Baseline MSCP Preserve total and 2,474 acres allocated to the MSCP Preserve total. In 2017, the Wildlife Agencies approved the inclusion of an additional 173 acres in the MSCP Preserve for the County’s Dictionary Hill acquisition. In 2018, the Wildlife Agencies approved the inclusion of an additional 97 acres in the MSCP Preserve for County acquisitions (92 acres for Peutz Valley Preserve and 5 acres for a Lakeside Linkage addition). In 2019, the Wildlife Agencies approved the inclusion of an additional 144 acres in the MSCP Preserve for County acquisitions. This includes two acres for Dictionary Hill additions, two acres of Ramona Grassland additions, and 140 acres of Skyline Preserve. Data contained in this chapter reflects these manual additions to the MSCP Preserve plus those reported as HabiTrak 2019 habitat gains (**Appendix C**). (HabiTrak is not yet updated to reflect the approved County additions to the MSCP Preserve from 2016 through 2019.)

**TABLE 3. MSCP PUBLIC AND PARTNER ACQUISITIONS SINCE 1998**

Agency	Funded In MSCP Preserve	2019 MSCP Preserve Total Owned and Managed	Complementary Conservation Owned and Managed <sup>a</sup>	Total in the MSCP Subarea Plan Boundaries Owned and Managed
	acres	acres	acres	acres
<b>Federal</b>				
USFWS <sup>b</sup>	2,937	8,642	3,139	11,781
BLM	1,830	1,830	2,609	4,439
<b>Subtotal</b>	<b>4,767</b>	<b>10,472</b>	<b>5,748</b>	<b>16,220</b>
<b>Non-Federal</b>				
State	11,464	14,430	11,427	25,857
County	4,760 <sup>c</sup>	7,633 <sup>d</sup>	0	6,748 <sup>e</sup>
Local Partners	2,606	3,162	859	4,021
<b>Subtotal</b>	<b>18,830</b>	<b>25,225</b>	<b>12,286</b>	<b>36,626</b>
<b>Total</b>				
<b>Grand Total</b>	<b>23,597</b>	<b>35,697</b>	<b>18,034</b>	<b>52,846</b>

**NOTES:**

<sup>a</sup> "Complementary Conservation" = "Outside the MSCP Preserve", a HabiTrak designation.

<sup>b</sup> USFWS MSCP Preserve accounting was updated in 2019. This resulted in a decrease in acres *Funded in MSCP Preserve* and an increase in *Complementary Conservation Owned and Managed*.

<sup>c</sup> Includes 205 acres County has purchased within other jurisdictions (Cities of San Diego and Chula Vista).

<sup>d</sup> Includes 689 acres that the County manages within other jurisdictions (Cities of San Diego and Chula Vista).

<sup>e</sup> Does not include 885 acres that the County manages within other jurisdictions (Cities of San Diego and Chula Vista.)

SOURCES: 2018 Annual Report, Appendix B, *Wildlife Agency Tracked Acquisitions*, Appendix A, *County Tracked Acquisitions Since 1998*, Appendix C, *Summary of MSCP Gains*

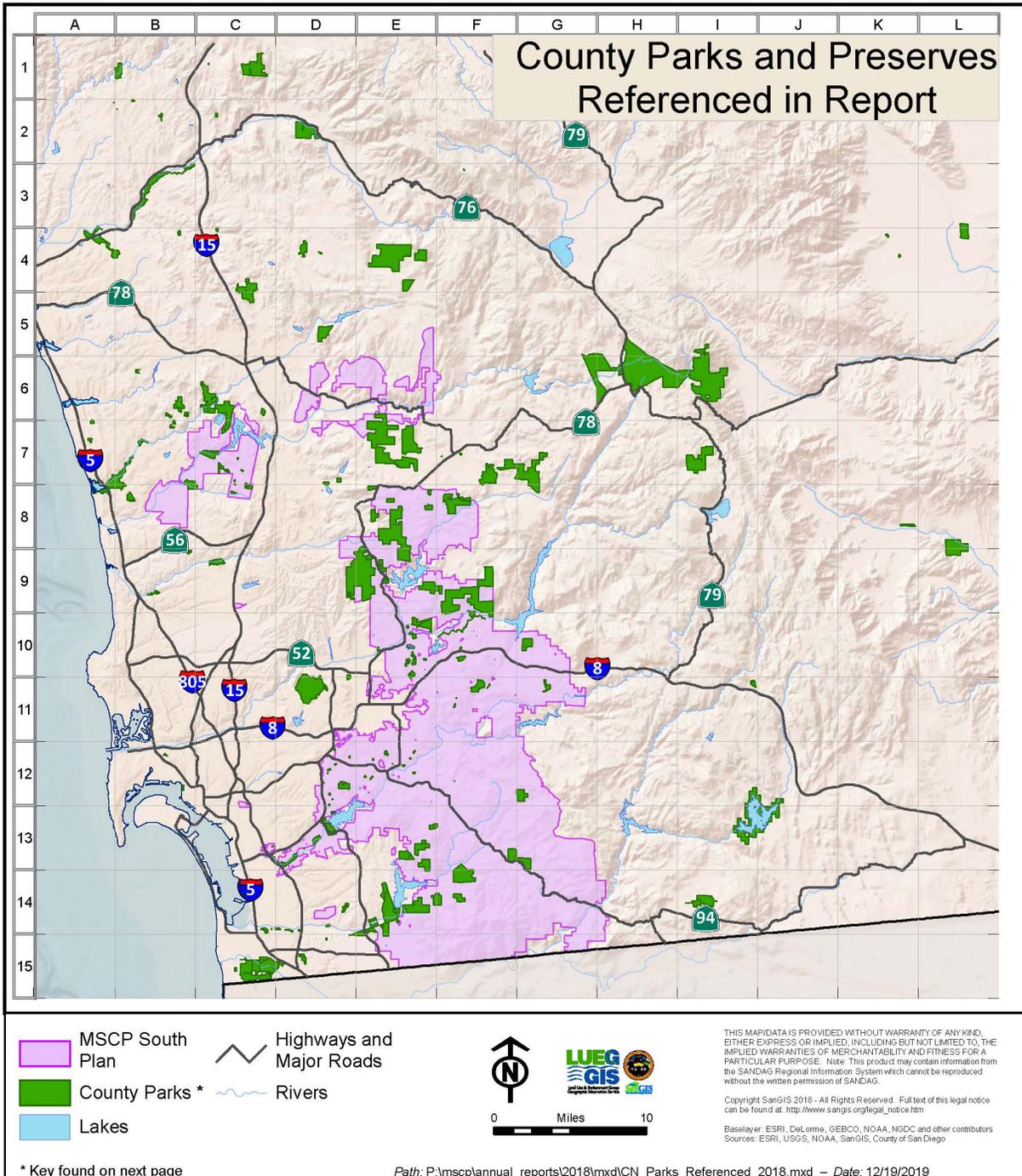
## County Acquisitions

The County has acquired, managed, or funded 13,099 acres of MSCP Preserve in the MSCP Subarea Plan Area (**Table 1** and **Figure 1**). This includes 5,466 acres of baseline and 7,633 acres of new acquisitions. In the reporting period, 567 acres were acquired by the County (**Table 4**). New lands were added to Ramona Grasslands (121 acres), Dictionary Hill (2 acres) and Sycamore Canyon and Goodan Ranch (20 acres). Two new preserves, Skyline Preserve (262 acres) and Iron Mountain Preserve (162 acres), were acquired in 2019. All County acquisitions are included in the MSCP Preserve.

**TABLE 4. COUNTY ACQUISITIONS FOR MSCP SUBAREA PLAN IN REPORTING YEAR**

Properties	Segments				Total (acres)
	Lake Hodges (acres)	South County (acres)	North Metro- Jamul-Lakeside (acres)	South Metro- Jamul-Lakeside (acres)	
<b>County Preserve Additions</b>					
Ramona Grasslands (Carroll)			121		121
Dictionary Hill (North)				1	1
Dictionary Hill (Inholding)				1	1
Sycamore Canyon and Goodan Ranch (west of SR 67)			20		20
<b>New County Preserves</b>					
Skyline Preserve				262	262
Iron Mountain Preserve			162		162
<b>Total</b>	<b>0</b>	<b>0</b>	<b>303</b>	<b>264</b>	<b>567</b>

SOURCE: LUEG-GIS2019 HabiTrak Report found in Appendix C, *Summary of MSCP Gains*



**Figure 1. County Parks and Preserves Referenced in Report**

*Map Key is on the following page*

**Map Key:**

## County Parks and Preserves Referenced in Report

**MSCP Subarea Plan**

F8	Barnett Ranch Preserve*
E8,9	Boulder Oaks Preserve
E12	Damon Lane Park
C6, C7	Del Dios Highlands Preserve*
D12	Dictionary Hill Preserve
F9	El Capitan Preserve*
F9, F10	El Monte Park
F10	Flinn Springs Park
D15	Furby-North Property
E8	Iron Mountain Preserve
E10	Lakeside Linkage Preserve
F13, G13	Lawrence & Barbara Daley Preserve
B9, C9	Los Peñasquitos Canyon Preserve
E10	Louis A. Stelzer Park
E8	Luelf Pond Preserve
B7, B8	Lusardi Creek Preserve
E9	Oakoasis Preserve
F11	Old Ironsides Park
E14	Otay Lakes Park
D14, E13, E14, F14	Otay Ranch Preserve
C14, D14, E14	Otay Valley Regional Park
G10	Peutz Valley
E6, E7	Ramona Grasslands Preserve*
C7	Santa Fe Valley Preserve
G12	Skyline Preserve
F11	Stoneridge Preserve
D13	Sweetwater Regional Park
DE9	Sycamore Canyon / Goodan Ranch Preserve
C15	Tijuana River Valley Regional Park

**Draft North County (NC) MSCP**

B6	Diamond Trail (TET) Property
B6, C6	Escondido Creek Preserve
C6	Felicita Park
A4	Guajome Park
E4	Hellhole Canyon Preserve
B2	Live Oak Park
F7, G7	Mt. Gower Preserve
A4	Rancho Guajome Adobe Park
B6	Sage Hill Preserve
B8	San Dieguito Park
A7, B7	San Elijo Lagoon Ecological Reserve
B3	San Luis Rey River Park
B1	Santa Margarita Preserve
F7	Simon Preserve
D2	Wilderness Gardens Preserve

**Proposed East County (EC) MSCP**

L8, L9	Agua Caliente Park
I12, I13, J12, J13	Lake Morena Park
F3	Palomar Mountain Park
I11	Pine Valley Park
I14	Potrero Park
G5, G6 H5, H6 I6	Santa Ysabel Preserve
K8	Vallecito Park
I6	Volcan Mt. Wilderness Preserve
I7	William Heise Park

\* Portions of preserves are also in North County MSCP Plan

## 2.4 Private Mitigation

Private mitigation has conserved 6,288 acres in the MSCP Preserve (**Table 5**). In the reporting year, 11 acres were added to the MSCP Preserve. Private mitigation is estimated to preserve 33,713 acres over the permit term. Private mitigation primarily includes gains acquired through the County’s permitting processes for hardline agreements identified in the MSCP Subarea Plan or new developments and other regulations.

**TABLE 5. MSCP PRIVATE MITIGATION**

Mitigation type	MSCP Preserve Goal	2018 Cumulative	2019 MSCP Preserve Gains	2019 MSCP Preserve Total
	acres	acres	acres	acres
Dedicated Private Hardline <sup>a</sup>	11,563	4,210	0	4,210
Privately Dedicated Lands <sup>b</sup>	22,150	2,067	11	2,078
<b>TOTAL</b>	<b>33,713</b>	<b>6,277</b>	<b>11</b>	<b>6,288</b>

**NOTES:**

<sup>a</sup> *Dedicated Private Hardline* are HabiTrak Acres Inside Habitat Preserve attributed to Otay Ranch Preserve Owner/Manager (POM).

<sup>b</sup> *Privately Dedicated Lands* are HabiTrak Acres Inside Habitat Preserve attributed to private.

SOURCE: 2018 Annual Report and 2019 HabiTrak Report found in Appendix C, *MSCP Summary of MSCP Gains*.

## 2.5 Mitigation Banks

Five mitigation banks, Boden Canyon, Old Castle, Rancho San Diego, Singing Hills, and Sweetwater, are established in the unincorporated county. With the Wildlife Agencies' approval, they are used to mitigate impacts to sensitive biological resources resulting from the County Department of Public Works' (DPW) construction, improvement, and maintenance projects. These banks are not used for mitigating private development projects as they were established for DPW projects. Use of credits is determined based on quality of habitat impacted in relation to quality of habitat available and is subject to approval by the U.S. Army Corps of Engineers, USFWS, CDFW, and Regional Water Quality Control Board. The status of each of the banks is detailed in **Appendix H** and summarized below.

- **Boden Canyon.** Mitigation bank totals 39.50 acres and includes the seven habitat types of coast live oak woodland, coastal sage scrub, Engelmann oak woodland, mixed chaparral, native grasslands, non-native grasslands, and southern riparian/oak woodland. All credits for four of the seven habitat types have been used. Credits totaling 15.68 acres for mixed chaparral, native grasslands and non-native grasslands remain.
- **Old Castle.** Mitigation bank totals 60.02 acres and includes the four habitat types of coast live oak woodland, coastal sage scrub, mixed chaparral scrub, and southern willow scrub. All credits for coast live oak woodland are used. Credits totaling 14.90 acres remain for the other habitats.
- **Rancho San Diego.** Mitigation bank totals 409.20 acres and includes the seven habitat types of coast live oak woodland, coastal sage scrub, disturbed/ruderal, marsh/riparian scrub/floodplain, mixed chaparral, native grasslands, and southern riparian/oak woodland. Credits totaling 248.70 acres remain.
- **Singing Hills.** Mitigation bank totals 69.70 acres for coastal sage scrub. Credits totaling 69.01 remain.
- **Sweetwater.** Mitigation bank totals 24.33 acres for marsh/riparian scrub/floodplain. Credits totaling 5.86 remain.

Per Section 9.13 of the IA, two types of mitigation banks are allowed in the MSCP Subarea Plan—formal banks approved by the Wildlife Agencies and banks that existed prior to adoption of the IA. Information on approved mitigation banks can be found at

<https://www.wildlife.ca.gov/Conservation/Planning/Banking>.

## 2.6 Mitigation Land Policy (I-138)

In January 2010, the County Board of Supervisors adopted Board of Supervisors Mitigation Land Policy (MLP) I-138, Mitigation on County-Owned Land Managed by the County Department of Parks and Recreation (DPR), which does not replace nor supersede Board of Supervisors Banking Mitigation Policy I-117. Policy I-117 was included as part of the original MSCP approvals and sets the procedures in establishing, using, and managing mitigation banks. MLP I-138 describes the County's program for acquiring land and making it available to mitigate the biological impacts of public and private projects through the sale of mitigation credits. Although MLP I-138 is not a mitigation bank, it authorizes DPR to administer the sale of mitigation credits. MLP I-138 sets forth methods by which the value of the

mitigation credits may be determined and requires applicants to pay for the valuation. The policy also requires an endowment for annual stewardship costs. A Certificate of Mitigation and Purchase Agreement is required for each transaction. The County trades the conveyance of mitigation credits to purchasers and the application of mitigation credits to development projects. County numbers, in **Table 6** and **Appendix A**, accurately show year-to-year manual County updates and subtraction of acres used for MLP credits. There were no MLP sales within the MSCP Subarea Plan boundaries in 2019. **Table 6** also shows revenue generated since adoption in the MSCP Subarea Plan from the sale of mitigation credits in accordance with the MLP. The County considers requests to use MLP I-138 on the preserves listed in **Table 6** according to GIS mapping of the vegetation available on those sites, the portion of which generally are acquired with County funds.

TABLE 6. MITIGATION LAND POLICY

Project	MSCP Subarea Plan Credits Sold	MSCP Subarea Plan Credit Cost	Endowment	County Preserve	Date
LOSSAN Double Tracking and Mid-Coast Light Rail Project	10	\$350,000	\$630,644	Tijuana River Valley Regional Park <sup>a</sup>	7/11/2016
San Vicente Road Improvement (SC Portion)	8.04	\$254,562	\$85,650	Lawrence & Barbara Daley	6/10/2015
Central Avenue Drainage Improvement and Woodside Flood Control	0.37	\$14,800	\$2,220	Lawrence & Barbara Daley	1/21/2014
Swiss Park Staging Area	1	\$23,300	\$6,000	Furby East Otay Mesa	1/17/2013
San Ysidro Freight Yard Improvement Project	1.75	\$61,250	\$10,500	Tijuana River Valley Regional Park <sup>a</sup>	2/14/2013
Five Dept. of Public Works projects (Tavern Rd., Wing Ave., Woodside Ave., Emery Rd., Jamacha Blvd.)	2.45	\$98,000	\$14,700	Lawrence & Barbara Daley	10/2/2012
Tuscan Ridge	1.07	\$16,050	\$4,060	Louis A. Stelzer Park	5/3/2011
Dictionary Hill-Maria Ave.	0.31	\$7,225	\$1,240	Lakeside Linkage	6/16/2011

Total

24.99	\$825,187	\$755,014	\$1,580,201
Total credits	Total income	Total Endowment	Total Income & Endowment

## NOTES:

<sup>a</sup> Park is outside of the MSCP Subarea Plan Area but is within the City of San Diego MSCP

SOURCE: DPR

## CHAPTER 3

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### Covered Projects



**Lakeside Ceanothus, an MSCP covered species, in bloom at El Capitan Preserve.**

The County permitted 126 development projects in the reporting period in the Subarea Plan Area. This included 125 single-family residential projects and one commercial project. No agricultural exemptions were issued during the reporting period.

### 3.1 Clearing for Single-Family Residences

Certificates of Inclusion (COIs) were issued for 22 discretionary permits for single-family residence projects totaling 59 acres in 2019. Private landowners of parcels zoned for single-family residences without a dwelling unit as of October 22, 1997, can apply for a COI for their property. COIs are issued for clearing or grading of two or five acres depending on whether the parcel is in PAMA or not, and 10 acres if a house existed on the parcel before October 1997, even if the landowners intend to clear less. The MSCP Subarea Plan does not have a limit for how many total acres can be cleared for single-family

residences. **Appendix E** provides COIs for discretionary permits issued in 2019 for clearing habitat on parcels 10 acres or smaller.

Per Section 4.3.4.2 of the MSCP Subarea Plan, and as implemented by the Biological Mitigation Ordinance (BMO), parcels which are less than 10 acres, occurring within the MSCP Subarea Plan boundaries that were zoned for single-family dwellings and contained a dwelling unit as of October 22, 1997, are exempt from the clearing regulations.

Within PAMA, parcels existing as of January 1, 1997, without a dwelling unit as of October 22, 1997, and are less than 10 acres and zoned for single-family residential uses, are allowed to clear up to two acres provided that clearing and grading of such two-acre portions does not interfere with achieving the goals and criteria of the MSCP Subarea Plan. These exempted acres are tracked and were accounted for within the MSCP Subarea Plan, which was designed and developed with anticipation of these clearing exemptions not interfering with the County's ability to achieve the goals and objectives of the MSCP Subarea Plan. Grading and clearing on the remaining portion of the parcel must meet the mitigation requirements of the BMO. Outside PAMA, grading and clearing on parcels less than 10 acres, zoned for single-family residential uses as of January 1, 1997, and without a dwelling unit as of October 22, 1997, shall be permitted for clearing on a total of five acres. Clearing the remainder of the parcel shall be subject to the requirements of the MSCP Subarea Plan and BMO.

## 3.2 Agricultural Exemption

COIs were not issued for agricultural exemptions in 2019. Section 4.3.4.3 of the MSCP Subarea Plan allows up to 3,000 acres of cumulative clearing and grading for agriculture without mitigation requirements of the MSCP Subarea Plan and the BMO. When clearing and grading of habitat reaches 3,000 acres, all other clearing and grading for agriculture will be subject to the mitigation requirements of the MSCP Subarea Plan and the BMO. Private landowners can apply for a COI for agricultural clearing and grading until the 3,000 acres is reached. COIs issued for agricultural clearing in the Subarea since the MSCP Subarea Plan was approved are listed in **Appendix J**, a cumulative reporting. Since 1998, the County has issued 13 COIs covering 1,224 acres for agricultural clearing or 41% of the 3,000 acres.

## 3.3 Building Permit COIs

The County Planning & Development Services (PDS) Building Division issues COIs that allow habitat clearing of the amount needed to construct per the approved Building Permit. COIs were issued for 97 Building Permits totaling 56 acres in 2019. Habitat clearing acreages for these projects in 2019 are enumerated in **Appendix E** and cumulatively included in **Appendix F**.

## CHAPTER 4

### Habitat Gains and Losses



**Wildlife flowers in bloom at Louis A. Stelzer Preserve.**

There was a total of 922 acres of habitat gains and 324 acres of habitat losses in the reporting period. This includes 623 acres of habitat gain inside the MSCP Preserve and 299 acres of complementary conservation.<sup>10</sup> Habitat losses inside PAMA and hardline preserve areas total 87 acres and outside 237 acres. Cumulatively, the MSCP Subarea Plan is in compliance with the rough step analysis, which ensures that habitat gains do not exceed habitat losses.<sup>11</sup> For the MSCP Subarea permit term, 1998 to 2019, the majority of habitat gains occurred within PAMA and hardline preserve areas, while the majority of habitat loss occurred outside of PAMA and hardline preserve areas. This indicates that the overall

<sup>10</sup> Appendix C, *Summary of MSCP Gains*, includes HabiTrak Summary of Project Gains, total of “Inside the Preserve” and County complementary acquisitions

<sup>11</sup> Appendix F, *Summary Habitat Losses and Gains*, includes HabiTrak Summary of Project Losses and Gains

conservation goals are being met to create a functional MSCP Preserve as high-quality habitat within PAMA and hardline preserve areas is being conserved and lower quality habitat is being developed.

## 4.1 Habitat Gains and Losses

Habitat gains of 623 acres and habitat losses of 87 acres occurred within PAMA and hardline preserve areas in the reporting period (**Table 7** and **Appendix F**).<sup>12</sup> Habitat gains were reported within the MSCP Preserve through acquisitions and dedications of mitigation land via the discretionary permit process. Habitat losses were reported from permitted development within PAMA and hardline preserve areas. Mitigation gain and habitat loss were associated with the following types of projects for which approvals were granted and reported in COIs during the reporting period.

- Private projects (tentative maps/tentative parcel maps) with final map approval.
- Projects issued grading permits.
- Building permits exempt from the BMO.
- Lands acquired for preservation.

### Habitat Gains

Reporting year conserved land additions within PAMA and hardline preserve areas span County (567 acres), federal and state (45 acres), and private dedications (11 acres [**Appendix C**]). There were 479 acres of habitat gain within the MSCP Preserve per HabiTrak. This number is missing 144 acres of 2019 County acquisitions counted as MSCP Preserve (**Table 7**).

Acquisitions for the County totaled 567 acres in six separate acquisitions in the reporting year (**Table 4**). Maps of each can be found in **Appendix D**.

- **Ramona Grasslands Preserve.** The 121-acre Ramona Grasslands Preserve addition features coastal sage scrub, chaparral, and oak woodland habitats. It is adjacent to the existing Ramona Grasslands Preserve.
- **Dictionary Hill Preserve.** There were two additions totaling two acres to the Dictionary Hill Preserve. Each acquisition was about one acre. One acquisition was an in-holding while the other was adjacent to the Preserve. Both properties feature coastal sage scrub.
- **Sycamore Canyon and Goodan Ranch Preserve.** There was a 20-acre addition to Sycamore Canyon and Goodan Ranch Preserve. The site contains chaparral and coastal sage scrub habitats. It is adjacent to Sycamore Canyon and Goodan Ranch Preserve.
- **Skyline Preserve.** A 262-acre new preserve was purchased. Skyline Preserve features chaparral, coastal sage scrub, and oak woodland habitat.

<sup>12</sup> Appendix C, *Summary of MSCP Gains*, includes HabiTrak Summary of Project Gains, total of “Inside the Preserve” and County complementary acquisitions

- **Iron Mountain Preserve.** A 162-acre new preserve was purchased. Iron Mountain Preserve features chaparral and oak woodland habitat.

## Habitat Loss

Losses in 2019 were 87 acres within PAMA and hardline preserve areas, part of a total of 323 acres impacted by development projects within the MSCP Subarea Plan boundaries (**Table 7** and **Appendix E**).

**TABLE 7. HABITAT GAIN AND LOSS IN REPORTING YEAR**

Habitat Gain/Loss	Outside PAMA and Hardline Preserve Areas	Inside PAMA and Hardline Preserve Areas	Total
<b>Habitat Gains</b>			
County <sup>a</sup>	-	567	567
Federal and State	11	45	56
Local/Non-profit partners	147		
Private Mitigation	141	11	152
<b>Total</b>	<b>299</b>	<b>623</b>	<b>922</b>
<b>Habitat Losses</b>			
<b>Total</b>	<b>237</b>	<b>87</b>	<b>324</b>

**NOTES:**

<sup>a</sup> HabiTrak identifies 144 acres as outside PAMA. These are approved County PAMA acquisitions. Updates to HabiTrak are forthcoming.

**SOURCES:** 2019 HabiTrak reports found in Appendix C, *Summary of MSCP Gains*, Appendix E, *Summary of MSCP Losses*

## 4.2 Habitat Tracking Reporting

CDFW maintains the HabiTrak toolset designed to track habitat losses and gains over time due to public and private development projects. HabiTrak reports for 2019 are attached to this reporting for the MSCP Subarea and are as follows.

- **Appendix C, *Summary of MSCP Gains*,** documents new acquisitions in the reporting year. Habitat gains in and outside PAMA and hardline preserve areas, as well as total acreage preserved, by acquisition are tracked. Habitat gains inside PAMA and hardline preserve areas are referred to as *Acres Inside Habitat Preserve*. These habitat gains represent the MSCP Preserve. Habitat gains outside PAMA and hardline preserve areas are referred to as *Acres Outside Habitat Preserve*. These habitat gains represent complimentary conservation.
- **Appendix E, *Summary of MSCP Losses*,** documents habitat losses from covered project impacts by segment in the reporting year. Habitat losses inside and outside PAMA and hardline preserve areas, as well as total acreage lost, by project are tracked. Habitat losses inside PAMA and hardline preserve areas are referred to as *Acres Inside Habitat Preserve*. Habitat losses outside PAMA and hardline preserve areas are referred to as *Acres Outside Habitat Preserve*.

- **Appendix F**, *Summary of Habitat Losses and Gains*, documents both habitat losses and gains for MSCP habitats in the reporting year and cumulatively. Like in the above, habitat gains and losses are tracked inside and outside PAMA and hardline preserve areas and cumulatively.
- **Appendix G**, *Habitat Conservation Accounting Model*, documents compliance with rough step proportionality. It reports on habitat losses and gains within PAMA and hardline preserve areas only for the North and South Metro-Lakeside-Jamul segments. It is within these segments that specific conservation ratios must be met.

Habitat gains and losses differ from those entered in HabiTrak as corrections for County acquisitions counted as *Inside the Preserve* are outstanding or not yet recorded in HabiTrak for reporting years 2016 thru 2019. For example, in this reporting year, 144 acres of habitat gains should be attributed to the MSCP Preserve rather than outside PAMA and hardline preserve areas for County acquisitions. In other years, accounting for losses due to mitigation land policy credits may need adjustment. For these reasons, the cumulative gains and losses of acreage within the MSCP Subarea Plan boundaries in the HabiTrak reports differ from the MSCP Preserve assembly totals reported in previous sections of this report.

HabiTrak reports a 76,294-acre cumulative gain within PAMA and hardline preserve areas and a loss of 1,481 acres (**Appendix F**). HabiTrak data for the MSCP Subarea Plan does not show the total of 885 acres jointly owned and managed by the County in the cities of San Diego and Chula Vista. The acreage is outside of the MSCP Subarea Plan Area, but included in the County-owned, managed or funded lands in the MSCP Preserve. Manual accounting of County acreages in **Appendix A** also differ from HabiTrak because County numbers accurately show year-to-year manual County updates and subtraction of acres used for mitigation land policy credits. The Wildlife Agencies' acquisitions totals are also tracked manually and may differ from HabiTrak. The manual accounting numbers are corrected when errors are noted, and audits are performed. Additionally, through the discretionary permitting process, the California Environmental Quality Act (CEQA) requires the identification of potential impacts. The corresponding loss of habitat resulting from development and habitat conserved through mitigation is tracked. Habitat loss through ministerial projects that do not require a discretionary permit are in this report.

The HabiTrak database and report formats have undergone updates and changes, and the numbers are corrected once inputs are received. As such, a combination of HabiTrak reports and manual accounting of gains and losses within both the MSCP Subarea Plan boundaries and MSCP Preserve is utilized to total MSCP Preserve assemblage by landowner type documented in **Table 1** and **Table 3**.

### 4.3 Rough Step Analysis

Rough step is the comparison of the total gains and losses within and outside of PAMA and hardline preserve areas in terms of total acres and habitat types. The purpose of rough step is to ensure that the conservation of high-quality habitat and habitat linkages, those lands inside PAMA and hardline preserve areas, occurs roughly in the same amounts at the same time as development outside PAMA and hardline preserve areas. **Table 8** shows the cumulative gains and losses inside and outside of PAMA and hardline preserve areas for each of the four segments within the MSCP Subarea Plan.

The majority of habitat gains for the four segments occurred within PAMA and hardline preserve areas, while the majority of habitat loss occurred outside of PAMA and hardline preserve areas. This numerical

comparison indicates that the overall conservation goals are being met to create a functional MSCP Preserve as high-quality habitat within PAMA and hardline preserve areas is being conserved and lower quality habitat is being developed. A visual rough step analysis of the biological core resource areas and habitat linkages are depicted in **Figure 2** and **Figure 3**.

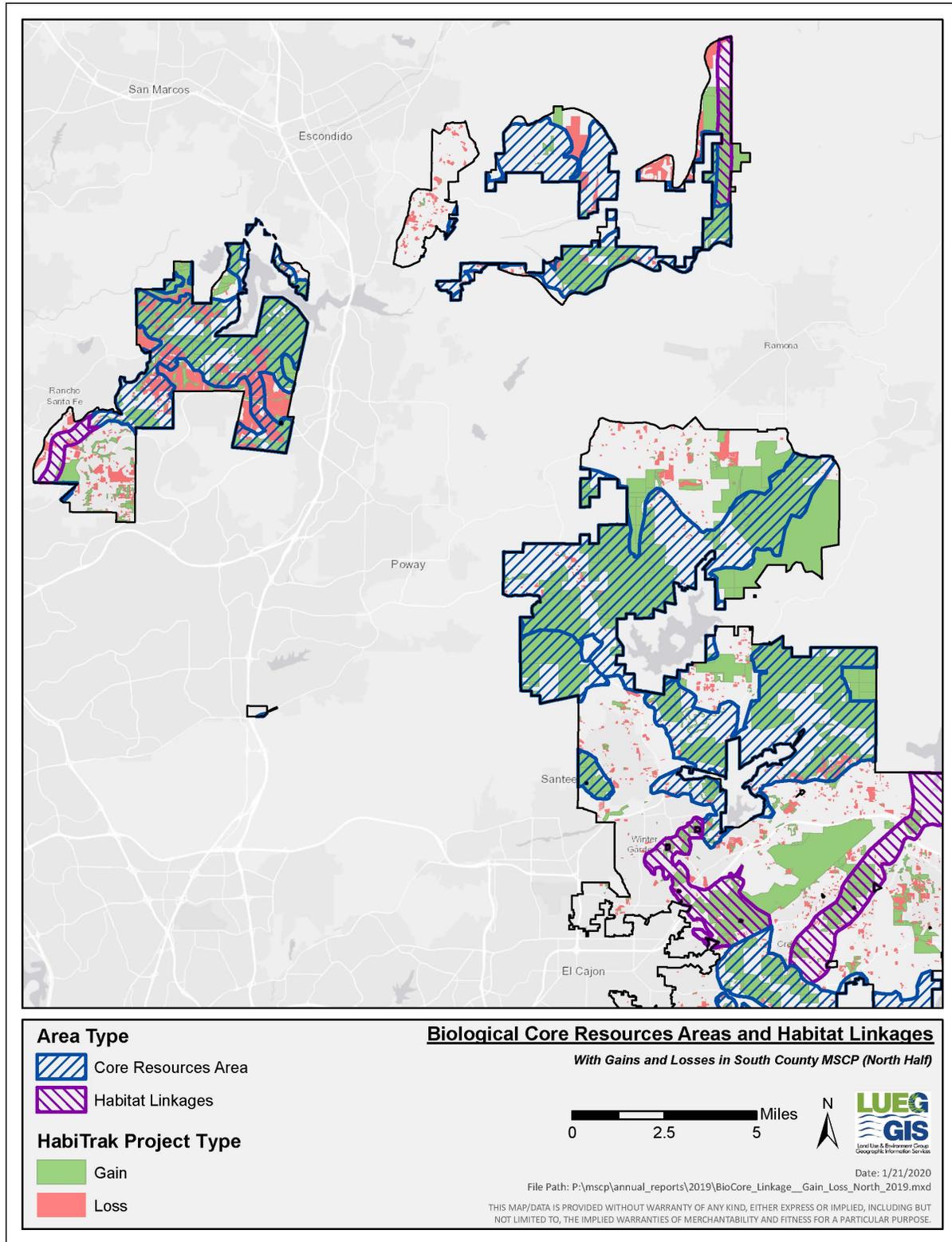
Rough step status can also be determined by comparing gains and losses of vegetation types inside and outside PAMA in the North and South Metro-Lakeside-Jamul segments. (PAMA designations only apply to the North and South Metro-Lakeside-Jamul segments. Lake Hodges and South County are both hardline preserve areas.) **Appendix G** reports on the conservation of each vegetation type within the Metro-Lakeside-Jamul segment, as required by Section 4.4 of the MSCP Subarea Plan and Section 14 of the IA. It should be noted that existing vegetation maps used to develop baseline conditions in HabiTrak are regional in nature and may not be consistent with actual on-the-ground conditions. This data also indicates that conservation is proceeding in rough step with development. The report in **Appendix G** demonstrates the County's compliance with MSCP Subarea Plan Objective 1 "*Acknowledge the no-net-loss-of-wetlands standard to satisfy state and federal wetland goals, policies, and standards.*"

**TABLE 8. HABITAT GAINS AND LOSSES BY SEGMENT SINCE 1998 PER HABI TRAK**

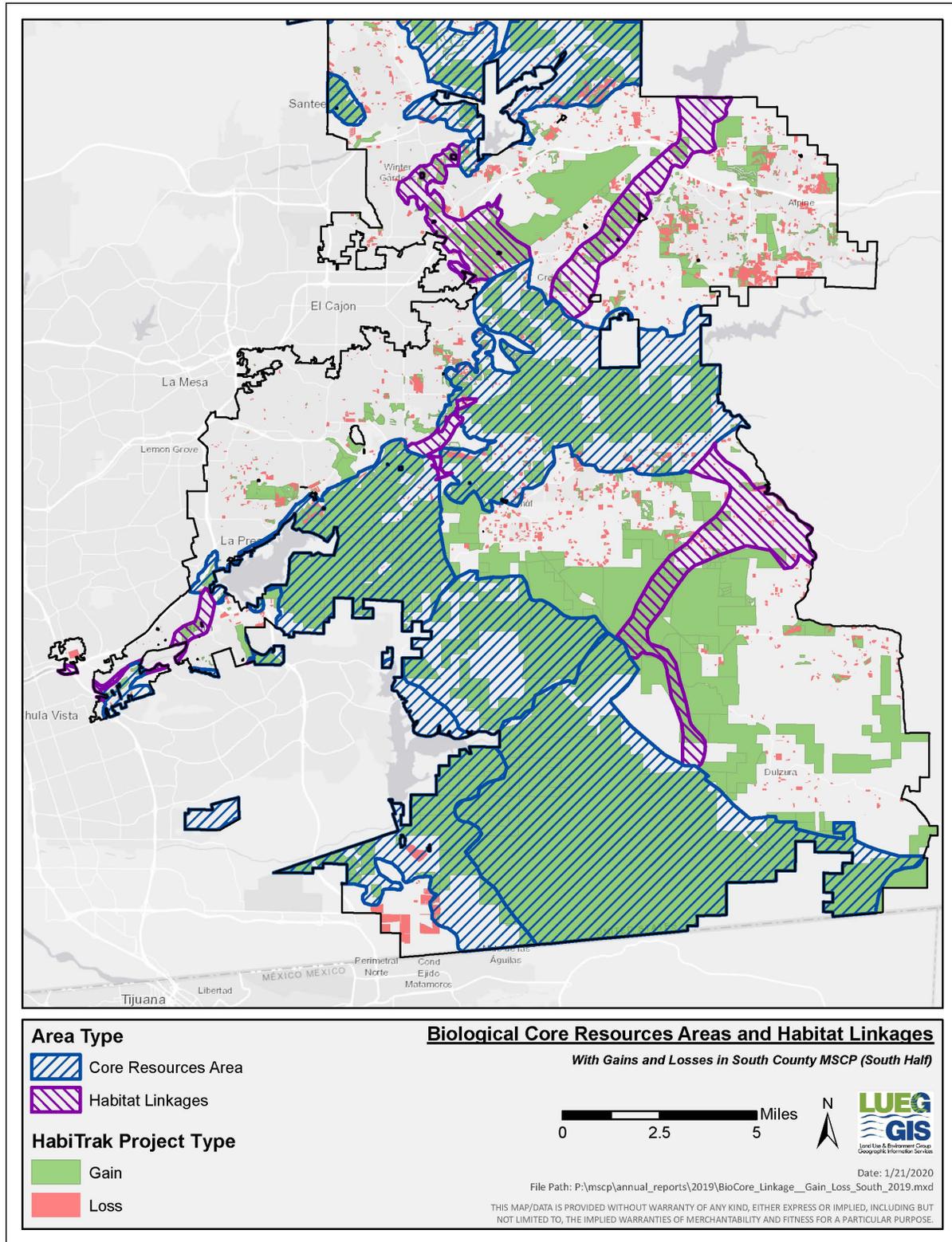
Segment	Cumulative (acres)		Total
	Outside PAMA and Hardline Preserve Areas	Inside PAMA and Hardline Preserve Areas	
<b>Habitat Gain</b>			
Lake Hodges	518	2,904	3,423
North Metro-Lakeside-Jamul	6,864	10,952	17,816
South Metro-Lakeside-Jamul	11,563	13,370	24,933
South County	1,756	10,239	11,995
<b>Total</b>	<b>20,702</b>	<b>37,465</b>	<b>58,167</b>
<b>Habitat Losses</b>			
Lake Hodges	2,466	91	2,557
North Metro-Lakeside-Jamul	3,826	641	4,467
South Metro-Lakeside-Jamul	3,218	573	3,791
South County	634	146	776
<b>Total</b>	<b>10,144</b>	<b>1,451</b>	<b>11,595</b>

NOTE: Totals may not add up due to rounding.

SOURCE: 2018 Annual Report plus 2019 HabiTrak reports found in Appendix C, *Summary of MSCP Gains* and Appendix G, *Habitat Conservation Accounting Model*.



**Figure 2. MSCP biological core resource areas and habitat linkages with gains and losses in the north half of the MSCP Subarea Plan Area**



**Figure 3. MSCP biological core resource areas and habitat linkages with gains and losses in the south half of the MSCP Subarea Plan Area**

## CHAPTER 5

# Species and Habitat Conservation

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**Skyline Preserve is a new County Preserve acquired in 2019.**

This chapter summarizes the contribution of County Preserves to the MSCP Subarea Plan objectives. The MSCP objectives ensure the persistence of habitat linkages for wildlife movement, critical biological resource areas for MSCP covered plant and animal habitat, and MSCP covered plant and animal occurrences in these areas.

The County initiated a *Preserve Functionality Assessment* in 2019 to evaluate the contribution of County Preserves to the MSCP objectives at the landscape-, habitat-, and species-level. A total of 30 County Preserves contribute to MSCP Subarea Plan landscape, habitat, and species objectives. (County Preserves are those depicted and referenced in **Figure 1**). The Subarea Plan identifies targets at the landscape-, habitat-, and species-level to quantify contributions to the MSCP objectives and measure success of the Subarea Plan. At the landscape-level, contributions are measured in acres of biological core resource areas, habitat linkages, and segments conserved. At the habitat-level, contributions are measured in acres of target habitat types conserved. At the species-level, contributions are measured in the MSCP covered species conserved.

County Preserves span 11 of 16 biological core resource areas and protect habitat linkages. The County Preserves contribute to habitat conservation goals of each of the target segments, which are Lake Hodges (20%), South County (6%), North Metro-Jamul-Lakeside (40%), and South Metro-Jamul-Lakeside (7%). The County Preserves conserve 17 of 18 target habitats with chaparral and coastal sage scrub being the most represented, with these habitat types present in 22 and 26 of County Preserves, respectively. MSCP covered species documented in County Preserves total 42 of 85 across 25 of the 30 County Preserves. Together with federal, state, local partner, and private mitigation conservation, the County and its partners contribute to preservation of the unique biological resources present in the unincorporated county.

## 5.1 MSCP Objectives

The Natural Communities Conservation Planning Conservation Guidelines, the MSCP, and the biological information from the MSCP's Multiple Habitat Planning Area (MHPA) MSCP Preserve alternative were used to establish conservation goals and criteria for habitat and individual species for each Segment of the MSCP Subarea Plan. These goals and criteria are based on the needs of the 85 MSCP covered species and an analysis of their habitats in the MSCP study area. Goals and criteria for conservation of biological core resource areas and habitat linkages within the individual segments are discussed in MSCP Subarea Plan Chapters 2, 3, and 4. The quantitative anticipated levels of conservation of vegetation types and individual species are included in MSCP Subarea Plan Section 1.2.1 and Section 1.2.2, respectively.

The County has made substantial progress toward the achievement of the MSCP Subarea Plan Objectives listed below. For each objective, progress is documented in the referenced chapter or section of the annual report. The County Preserves contribution refers to those parks and preserves owned or managed by the County.

**Objective 1:** Acknowledge the no-net-loss-of-wetlands standard to satisfy state and federal wetland goals, policies, and standards.

**Progress:** Compliance with Rough Step Analysis is provided in Chapter 4, *Habitat Gains and Losses*

**Objective 2:** Include measures to maximize the habitat structural diversity of conserved habitat areas, including conservation of unique habitats and habitat features (e.g., soil types, rock outcrops, drainages, and host plants).

**Progress:** RMP development and implementation is provided in Chapter 6, *Preserve Management*. RMPs provide detailed site-specific physical, biological, and cultural information for County Preserves. They include a framework for management and monitoring, and management directives. RMPs are further refined in the TMP. The TMP is a monitoring and management implementation plan in which MSCP covered biological resources are targeted for intensive monitoring and management across multiple County Preserves. The TMP is consistent with regional priorities, includes goals, measurable objectives, and detailed protocols using best available science. Species- and habitat-specific monitoring results are provided in Chapter 7, *Preserve Monitoring and Research*. Adaptive management is informed by the TMP. Adaptive management actions are described in Chapter 6, *Preserve Management*.

**Objective 3:** Provide for the conservation of spatially representative (e.g., coastal versus interior) examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model.

**Progress:** Habitat protection goals identified in MSCP Subarea Plan Table 1-2 and Table 4-2 are measured in Section 5.3, *Habitat-Level Conservation*.

**Objective 4:** Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

**Progress:** Protection of the eight critical biological resource areas identified in MSCP Subarea Plan Section 4.2.2 and five habitat linkages identified in MSCP Subarea Plan Section 4.2.3 is documented in Section 5.2, *Landscape-level Conservation*.

**Objective 5:** Provide incentives for development in the least sensitive habitat areas.

**Progress:** Projects covered by the MSCP and compliant with County's BMO are documented in Chapter 3, *Covered Projects*.

**Objective 6:** Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic subassociations in biologically functioning units.

**Progress:** Conservation of target vegetation communities, species habitats, and species occurrences (i.e., compliance monitoring) is documented in Section 5.3, *Habitat-level Conservation* and Section 5.4, *Species-level Conservation*. Status and trends monitoring (i.e., effectiveness monitoring) is documented in Chapter 7, *Preserve Monitoring and Research*.

**Objective 7:** Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.

**Progress:** Protection of the eight critical biological resource areas identified in MSCP Subarea Plan Section 4.2.2 and five habitat linkages identified in MSCP Subarea Plan Section 4.2.3. is documented in Section 5.2, *Landscape-Level Conservation*.

## 5.2 County Preserve Functionality Assessment

The County initiated a *MSCP Preserve Functionality Assessment* in 2019 to evaluate the contribution of County Preserves to the MSCP objectives at the landscape-, habitat-, and species-level. The Subarea Plan identifies targets at the landscape-, habitat-, and species-level to quantify contributions to the MSCP objectives and measure success of the Subarea Plan. At the landscape-level, contributions are measured in acres of biological core resource areas, habitat linkages, and segments conserved. At the habitat-level, contributions are measured in acres of target habitat types conserved. At the species-level, contributions are measured in the MSCP covered species conserved. The metrics presented in this chapter are the preliminary results of the contributions of County Preserves. Final results will be presented in the 2020 Annual Report. In up-coming years, additional MSCP Preserve-lands will be added to the analysis. The next MSCP Preserve-lands to be analyzed will be private mitigation lands.

Wildlife Agencies, San Diego Management and Monitoring Program (SDMMP), U.S Geological Society (USGS), DPR, LUES-GIS, and Environmental Science Associates attended a kick-off meeting in December 2019 to review the scope of the assessment, identify data needs, and discuss the methodology. It was agreed that the *Preserve Functionality Assessment* would include the following components described as follows.

**County Preserves.** County Preserves enrolled in the MSCP Preserve would be the units of analysis. These are the 30 County Preserves included in this Annual Report and depicted in **Figure 1**.

**Data.** Data from 1997 to present would be considered in the analysis. Data sources include GIS data from DPR's TMP, RMPs, inventory surveys, habitat vegetation mapping, and restoration projects. County Partner data from the SDMMMP, USGS, and Wildlife Agencies would also be included.

**MSCP Covered Species on County Preserves.** The analysis would determine species-level contributions MSCP covered species conservation goals. The data would be used to determine which of the 85 MSCP covered species are found on County Preserves. Results would be summarized in a matrix of MSCP covered species, their sensitivity classifications, and whether or not they were found on the County Preserves. A separate table would identify MSCP covered species by County Preserve.

**Acreage of conserved and targeted habitat vegetation types on County Preserves.** The analysis would determine habitat-level contributions to MSCP habitat conservation goals. The data would be used to determine the habitat vegetation type acreage on County Preserves and compared to the target acreage in Table 1-2 of the Subarea Plan. Results would be summarized in a matrix of vegetation types, their total acreages within County Preserves, and the relative contribution to the target acreages in Table 1-2 (e.g., percent contribution). The results would be summarized for the County Preserves as a whole and by each County Preserve. At the habitat-level, contributions are measured in acres of target habitat types conserved.

**Status summary of each MSCP covered species located on County Preserves.** The analysis would determine species-level contributions to MSCP covered species conservation goals. A status summary of each MSCP covered species conserved and their MSCP habitat conservation goals based on Table 3-5 of the MSCP would be provided. This summary would list MSCP covered species with habitat goals and the habitat conservation goals for each species. The amount of habitat conserved for each species on County Preserves would be quantified and percent contribution to the MSCP goal calculated. For those species monitored by the TMP, the number of occurrences and percent contribution to the occurrence targets in Table 1-3 of the Subarea Plan would be summarized.

**Summary of threats and monitoring activities on County Preserves for MSCP covered species.** The analysis would inform habitat and species-level management and monitoring actions for MSCP covered species. An analysis of threats to MSCP covered species and DPR monitoring activities that are implemented to ensure the success of the MSCP covered species on County Preserves would be conducted and a summary developed.

**MSCP Preserve Functionality Report.** This report would summarize landscape-level, habitat-level, and species-level contributions and assess MSCP Preserve function on the County Preserves. A report encompassing the analyses described above would be developed. It would provide the context of the MSCP Subarea Plan and map the County Preserves. A summary of the conservation status of the MSCP covered species and their habitats on County Preserves would be provided. Contributions to habitat linkages would be discussed. Threats to MSCP covered species would be discussed. Monitoring activities would be summarized. Recommendations for further analyses and reporting to address MSCP Preserve Functionality would be provided.

## 5.3 Landscape-Level Conservation

A landscape-level conservation analysis was conducted to determine the County’s contributions to MSCP Subarea Plan Objective 4 “*Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats*” and Objective 7 “*Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.*” The results presented in this section are the preliminary results of a *Preserve Functionality Assessment* initiated in 2019. To complete this analysis, LUEG-GIS used their own GIS data. The County Preserves layer was overlaid with the MSCP Subarea Plan segments, biological core resource areas, and habitat linkages.<sup>13</sup> The preliminary results quantified the acres of biological core resources areas and habitat linkages by segment in the County Preserves. The initial results from the Preserve Functionality Assessment is presented in this section. As the County continues to conduct the Preserve Functionality Assessment through-out 2020, final results will be presented in the 2020 Annual Report.

The present analysis includes the 30 County Preserves and provides the results in GIS-calculated acres. County Preserves refers to County-owned and managed parks and preserves that contribute to the MSCP Preserve. The County is required to monitor, manage, and report on the County Preserves consistent with the MSCP Subarea Plan; therefore, the scope of the analysis is limited to the County Preserves. It only evaluates the County Preserves’ contribution to the MSCP Preserve. The County Preserves are located within the MSCP Subarea Plan boundaries and the adjacent City of Chula Vista and City of San Diego Subarea Plan Areas. The County Preserves are part of the MSCP Preserve. The GIS-calculated acres are different than the HabiTrak-calculated acres provided in Chapter 3, *Preserve Assembly*. All the parks and preserves included in the analysis are County Preserves; however, portions of the park or preserve may be excluded from the Preserve due to existing use (e.g., campground, sports fields). The results are an estimate of the County’s contribution to the MSCP Subarea Plan objectives based on the initial Preserve Functionality Assessment. Over the course of 2020, the dataset will be refined, and an update will be presented in the 2020 Annual Report. In up-coming years, additional MSCP Preserve-lands will be added to the analysis. The next MSCP Preserve-lands to be analyzed will be private mitigation lands.

The County Preserves contribute to MSCP Subarea Plan landscape, habitat, and species objectives. County Preserves span 11 biological core resource areas, 634 acres of habitat linkages, and seven segments (**Table 9**). **Table 9** summarizes landscape-level conservation for County Preserves.

**Biological core resource areas.** The MSCP Plan identifies 16 biological core resource areas in Table 2-2. Biological core resource areas generally support a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere. Eight of these biological core resource areas are identified as critical in the MSCP Subarea Plan Section 4.2.2. County Preserves contribute to the protection of 11 of the 16 biological core resource areas and six of the eight identified as critical.

<sup>13</sup> The biological core resource areas and habitat linkages are those identified in Figure 2-2 of the *Final Multiple Species Conservation Program* (MSCP Plan [1998]).

**Habitat linkages.** The MSCP Plan identifies 24 linkages between biological core resource areas in Table 2-2. Habitat linkages have habitat characteristics that allow plants and animals to move between the biological core resource areas. Five of these linkages are targeted for acquisition in the North and South Metro-Lakeside-Jamul segments as identified in MSCP Subarea Plan Section 4.2.3. County Preserves protect linkages in the following segments: North and South Metro-Lakeside-Jamul, City of San Diego Northern Area, South County, City of Chula Vista, and City of San Diego Southern Area.

**Segments.** The MSCP Subarea Plan identifies four segments within which the MSCP Preserve will be assembled. County Preserves span these four segments, plus three additional segments in other Subarea Plan Areas. Within the MSCP Subarea Plan Area, County Preserves contribute between 6 and 40% of the segment goals.<sup>14</sup>

The County Preserves contribute to MSCP Subarea Plan Objective 4 “*Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats*” and Objective 7 “*Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.*” The County Preserves preserved in each segment are summarized below and detailed in **Table 9**.

**TABLE 9. LANDSCAPE-LEVEL CONSERVATION IN COUNTY PRESERVES**

County Preserve	Area (acres)	Segment Name	Segment acres	Biological Core Resource Area Habitat Linkage	Core Area acres	Linkage acres
Barnett Ranch Preserve	745	North Metro-Lakeside-Jamul	665	Central Poway/San Vicente Reservoir	273	-
Boulder Oaks Preserve	2,019	North Metro-Lakeside-Jamul	2,019	Central Poway/San Vicente Reservoir	1,417	-
Damon Lane Park	30	South Metro-Lakeside-Jamul	30	-	-	-
Del Dios Highlands Preserve	782	North Metro-Lakeside-Jamul	269	Hodges Reservoir/San Pasqual Valley	167	
Dictionary Hill Preserve	176	South Metro-Lakeside-Jamul	176	-	-	-
El Capitan Preserve	2,665	North Metro-Lakeside-Jamul	2,377	Lake Jennings/Wildcat Canyon	2,312	-
El Monte Park	87	North Metro-Lakeside-Jamul	87	Lake Jennings/Wildcat Canyon	87	
Flinn Springs Park	73	South Metro-Lakeside-Jamul	73	-	-	-
Furby-North Property	79	City of San Diego Southern Area	79	Vernal Pools, Otay Mesa	65	-
Sycamore Canyon and	2,733	North Metro-Lakeside-Jamul	2,733	Central Poway/San Vicente Reservoir	1,271	-
					1,460	

<sup>14</sup> The segment goals are for all MSCP Preserve acquisitions—County, federal, state, non-profit partners, private mitigation.

TABLE 9. LANDSCAPE-LEVEL CONSERVATION IN COUNTY PRESERVES

County Preserve	Area (acres)	Segment Name	Segment acres	Biological Core Resource Area Habitat Linkage	Core Area acres	Linkage acres
Goodan Ranch Preserve				Mission Trails/Kearny Mesa/East Elliot/Santee		
Iron Mountain Preserve	162	North Metro-Lakeside-Jamul	162	Central Poway/San Vicente Reservoir	162	-
Lakeside Linkage Preserve	209	North Metro-Lakeside-Jamul	209	Lake Jennings/Wildcat Canyon I-8 at Lakeside Linkage	11	188
Lawrence & Barbara Daley Preserve	581	South Metro-Lakeside-Jamul	581	Otay Mountain/Jamul Mountains to Sequan Peak Linkage		<1
Los Peñasquitos Canyon Preserve	199	City of San Diego Northern Area	199	Los Peñasquitos Lagoon/Del Mar Mesa Los Peñasquitos Creek west of Poway Linkage	176	14
Louis A. Stelzer Park	369	North Metro-Lakeside-Jamul	369	Lake Jennings/Wildcat Canyon	369	
Luelf Pond Preserve	87	North Metro-Lakeside-Jamul	87	-	-	-
Lusardi Creek Preserve	226	Lake Hodges	226	Hodges Reservoir/San Pasqual Valley	226	
Oakoasis Preserve	391	Lake Hodges	391	Central Poway/San Vicente Reservoir	27	-
Old Ironsides Park	4	South Metro-Lakeside-Jamul	4	Dehesa to El Capitan Reservoir Linkage	-	2
Otay Lakes Park	10	South County	10	Otay Lakes/Otay Mesa/Otay River Valley	10	-
Otay Ranch Preserve	3,964	City of Chula Vista South County	99 2,965	Jamul Mountains Otay Lakes/Otay Mesa/Otay River Valley Otay Mountain/Marron Valley	894 1,792 1,252	-
Otay Valley Regional Park	433	South County City of Chula Vista City of San Diego Southern Area	209 125 99	Otay Lakes/Otay Mesa/Otay River Valley Otay River west of I-805 Linkage	340	41
Peutz Valley Preserve	255	North Metro-Lakeside-Jamul	255	Dehesa to El Capitan Reservoir Linkage	-	7
Ramona Grasslands Preserve	3,610	North Metro-Lakeside-Jamul	533	Hodges Reservoir/San Pasqual Valley	533	-
San Vicente Connection	117	North Metro-Lakeside-Jamul	117	Central Poway/San Vicente Reservoir	117	-
Santa Fe Valley Preserve	299	Lake Hodges	299	Hodges Reservoir/San Pasqual Valley	291	-

**TABLE 9. LANDSCAPE-LEVEL CONSERVATION IN COUNTY PRESERVES**

<b>County Preserve</b>	<b>Area (acres)</b>	<b>Segment Name</b>	<b>Segment acres</b>	<b>Biological Core Resource Area Habitat Linkage</b>	<b>Core Area acres</b>	<b>Linkage acres</b>
Skyline Preserve	262	South Metro-Lakeside-Jamul	262	Otay Mountain/Jamul Mountains to Sequan Peak Linkage	-	140
Stoneridge Preserve	247	South Metro-Lakeside-Jamul	247	Dehesa to El Capitan Reservoir Linkage		241
Sweetwater Regional Park	186	South County South Metro-Lakeside-Jamul	162 24	Sweetwater Reservoir/San Miguel Mountain	60	-
Tijuana River Valley Regional Park	1,779	City of San Diego Southern Area	1,779	Tijuana Estuary/River Valley	1,182	-

SOURCE: County, LUEG-GIS

## 5.4 Habitat-Level Conservation

A habitat-level conservation analysis was conducted to determine the County’s contributions to MSCP Subarea Plan Objective 3 “*Provide for the conservation of spatially representative (e.g., coastal versus interior) examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model*” and Objective 6 “*Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic subassociations in biologically functioning units.*” The results presented in this section are the preliminary results of a *Preserve Functionality Assessment* initiated in 2019. In this section, LUEG-GIS used their own GIS data. A habitat-level conservation analysis was conducted to determine the County’s contribution to habitat-level conservation objectives established in the MSCP Subarea Plan. The present analysis includes the 30 County Preserves and provides the results in GIS-calculated acres. The County Preserves layer was overlaid with the vegetation layer. The preliminary results quantified the acres of MSCP target habitats in the County Preserves cumulatively, by segment, and by County Preserve. The preliminary results are presented in this section. Final results will be presented in the 2020 Annual Report.

As stated in the previous section, the GIS-calculated acres are different than the HabiTrak-calculated acres provided in Chapter 3, *Preserve Assembly*. The results are currently an estimate of the County’s contribution to the MSCP Subarea Plan objectives. Over the course of 2020, the dataset will be refined, and an update will be presented in the 2020 Annual Report

The MSCP Subarea Plan has habitat conservation goals for MSCP Preserve-wide, by segment (i.e., Lake Hodges, South County, and Metro-Lakeside-Jamul), and by sub-segment for Metro-Lakeside-Jamul (i.e., North and South). County Preserves conserve 17 of 18 target habitats within MSCP Subarea Plan. The most prevalent habitats conserved in County Preserves are chaparral (8,014 acres) and coastal sage scrub (6,218 acres). For these habitat types, County Preserves contribute 42% and 33%, respectively, to the MSCP Preserve goals. **Table 10** details County Preserves’ contribution to MSCP Preserve-wide habitat conservation goals. County Preserves conserve habitat in all segments. County Preserves conserve 14 of 16 target habitats in the Lake Hodges segment, 12 of 17 target habitats in South County, and 13 of 14 target habitats in the Metro-Jamul-Lakeside Segment. **Table 11** details County Preserves’ contributions to the segment goals. The Metro-Lakeside-Jamul Segment has conservation goals for the North and South portions of the segment. County Preserves conserve 13 of 13 target habitat types in the North and 10 of 12 in the South. **Table 12** details County Preserves’ contributions to the segment goals. Each County Preserve contains two to 15 habitat types. Chaparral and coastal sage scrub habitats are distributed across most of the County Preserves (22 and 26, respectively) (**Appendix J**).

The County’s land preservation contributes to MSCP Subarea Plan Objective 3 “*Provide for the conservation of spatially representative (e.g., coastal versus interior) examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model*” and Objective 6 “*Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic subassociations in biologically functioning units.*” Anticipated conservation levels for vegetation types in the MSCP Subarea Plan are presented in MSCP Subarea Plan Table 1-2, *Habitat Protection Goals for the San Diego County Subarea* and Table 4-2, *Habitat Protection Goals*. The total amount of habitat

conserved in County Preserves is summarized in **Table 10**. County Preserves contribute to segment goals is documented in **Table 11** and **Table 12**. The acres of habitat preserved in each County Preserve is summarized in **Appendix J**.

County Preserves conserve habitats in the target segments and contribute 6 to 26% of conservation goals identified in MSCP Subarea Plan Table 1-2. The largest contributions to the overall goals are to oak woodland (27%), grassland (23%), and coastal sage scrub/chaparral (21%). County Preserves' contribution is provided in **Table 11** and summarizes as follows.

- **Lake Hodges.** Fourteen target habitats are conserved in the Lake Hodges segment and contribute 20% to the overall segment goal. The largest contributions are for oak woodland (>100%), riparian forest (43%), and freshwater marsh (32%).
- **South County.** Twelve target habitats are conserved in the South County segment and contribute 6% to the overall segment goal. The largest contributions are for coastal sage scrub/chaparral (77%), grassland (21%), and coastal sage scrub (9%).
- **Metro-Jamul-Lakeside.** Fifteen target habitats are conserved in the Metro-Jamul-Lakeside segment and contribute 26% to the overall segment goal. The largest contributions are for riparian woodland (67%), eucalyptus woodland (39%), and chaparral (37%).

The MSCP Subarea Plan establishes additional habitat conservation goals for 13 habitats in the north and south portions of the Metro-Jamul-Lakeside segment in MSCP Subarea Plan Table 4-2. County Preserves' contribution is provided in **Table 13** and summarized as follows.

- **North Metro-Jamul-Lakeside.** Twelve target habitats are conserved in North Metro-Jamul-Lakeside and contribute 40% to the overall goal. The largest contributions are for freshwater marsh (100%), riparian woodland (67%), and grassland (65%).
- **South Metro-Jamul-Lakeside.** Nine target habitats are conserved in South Metro-Jamul-Lakeside and contribute 7% to the overall goal. The largest contributions are for eucalyptus woodland (36%), riparian forest (30%), and oak riparian forest (9%).

**TABLE 10. HABITAT CONSERVATION IN COUNTY PRESERVES**

<b>Vegetation Community</b>	<b>Cumulative (acres)</b>	<b>% of Total</b>
Coastal Sage Scrub	6,218	33%
Maritime Succulent Scrub	93	0%
Chaparral	8,014	42%
Southern Maritime Chaparral	-	-
Coastal Sage Scrub/Chaparral	274	1%
Grassland	966	5%
Freshwater Marsh	36	0%
Oak Riparian Forest	222	1%
Riparian Forest	23	0%
Riparian Woodland	44	0%
Riparian Scrub	627	3%
Oak Woodland	587	3%
Tecate Cypress Forest	160	1%
Eucalyptus Woodland	31	0%
Open Water	130	1%
Disturbed Wetland	13	0%
Flood Channel	125	1%
Other Habitat		0%
Bog and Marsh	13	0%
Shallow Bays	<1	0%
Disturbed Land	110	1%
Agriculture	876	5%
Urban/Developed	453	2%

NOTES: Vegetation Communities listed are those identified in MSCP Subarea Plan Table 1-2. *Habitat Protection Goals for the San Diego County Subarea.*

SOURCE: County, LUEG-GIS

TABLE 11. HABITAT CONSERVATION GOALS ACHIEVED IN COUNTY PRESERVES FOR ALL SEGMENTS

	Goals (acres)				In County Preserves (acres)				Contribution to Goals (%)			
	Segments			Total	Segments			Total	Segments			Total
Vegetation Community	LH	SC	MJL	Goal	LH	SC	MJL		LH	SC	MJL	
Coastal Sage Scrub	2,591	23,037	18,626	44,254	308	2,048	2,839	5,195	12%	9%	15%	12%
Maritime Succulent Scrub	0	158	0	158		1		1		1%		1%
Chaparral	1,391	19,874	18,619	39,884	414	609	6,913	7,936	30%	3%	37%	20%
Southern Maritime Chaparral	5	0	0	5				0	0%			0%
Coastal Sage Scrub/Chaparral	20	153	1,152	1,325	3	118	153	274	15%	77%	13%	21%
Grassland	305	1,658	1,603	3,566	48	345	437	830	16%	21%	27%	23%
Freshwater Marsh	50	173	15	238	16	13	2	31	32%	8%	13%	13%
Oak Riparian Forest	7	141	2,045	2,194	<1	6	216	222	0%	4%	11%	10%
Riparian Forest	21	243	84	348	9		12	21	43%	-	14%	6%
Riparian Woodland	6	8	6	20			4	4	0%	-	67%	20%
Riparian Scrub	38	424	298	760	17	3	1	21	45%	1%	0%	3%
Oak Woodland	21	284	1,901	2,206	44	20	523	587	>100%	7%	28%	27%
Tecate Cypress Forest	0	5,589	0	5,589		160		160		3%		3%
Eucalyptus Woodland	61	17	41	120	6	<1	16	22	10%	0%	39%	18%
Open Water	19	6	124	149	4		21	25	21%	-	17%	17%
Disturbed Wetland	4	34	52	90	1			1	25%	-	0%	1%
Flood Channel	15	132	197	344	3			3	20%	-	0%	1%
Other Habitat	16	2	0	18	42	24	339	405	>100%	>100%	>100%	>100%

NOTES: Contributions to City of Chula Vista and City of San Diego MSCP Subarea Plan segment goals are not provided. For this reason, the sum of the segments does not equal the County Preserve acreage. Habitat protection goals are from MSCP Subarea Plan Table 1-2, *Habitat Protection Goals for the San Diego County Subarea*.

SOURCE: County, LUEG-GIS

**TABLE 12. HABITAT CONSERVATION GOALS ACHIEVED IN COUNTY PRESERVES FOR METRO-LAKESIDE-JAMUL SEGMENT**

Vegetation Community	Metro-Lakeside-Jamul Goals (acres)		Conserved in County Preserves (acres)		Contribution to Goals (%)	
	North	South	North	South	North	South
Coastal Sage Scrub	9,525	9,101	2,122	716	22%	8%
Maritime Succulent Scrub	-	-	-	-	-	-
Chaparral	12,134	6,285	6,415	498	53%	8%
Southern Maritime Chaparral	-	-	-	-	-	-
Coastal Sage Scrub/Chaparral	454	698	136	17	30%	2%
Grassland	633	971	414	23	65%	2%
Freshwater Marsh	2	13	2		100%	-
Oak Riparian Forest	1,121	923	137	79	12%	9%
Riparian Forest	51	33	2	10	4%	30%
Riparian Woodland	6		4		67%	-
Riparian Scrub	236	63	1	<1	0%	0%
Oak Woodland	1,036	862	513	10	50%	1%
Tecate Cypress Forest	-	-	-	-	-	-
Eucalyptus Woodland	27	14	11	5	41%	36%
Open Water	90	34	21		23%	-
Disturbed Wetland	-	52			-	-
Flood Channel	34	163			0%	-
Other Habitat	-	-	299	38	-	-
<b>Total</b>	<b>25,353</b>	<b>19,411</b>	<b>10,078</b>	<b>1,397</b>	<b>40%</b>	<b>7%</b>

NOTES: Metro-Lakeside-Jamul Goals are from MSCP Subarea Plan Table 4-2.

SOURCE: LUEG-GIS

## 5.5 Species-Level Conservation

A species-level conservation analysis was conducted to determine the County’s contribution to MSCP Subarea Plan Objective 6, “*Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic subassociations in biologically functioning units*” and Objective 7 “*Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.*” The results presented in this section are the preliminary results of a *Preserve Functionality Assessment* initiated in 2019. Environmental Science Associates (ESA) consolidated MSCP covered species occurrence data for occurrences documented from 1998 to present. GIS data sources were SanBIOS, California Natural Diversity Database, San Diego Management and Monitoring Program’s (SDMMP’s) MSP Species Master Occurrence Matrix databases, USFWS Regss locations of sensitive species sightings database, and USFWS sensitive species (polygons). The County Preserves layer provided by LUEG-GIS was overlaid with this data to determine MSCP covered species within the County Preserves. Resource management plans and baseline reports for County Preserves were reviewed for additional MSCP covered species that may have been missing from the GIS data. If GIS data or document review indicated a MSCP covered species was present in a County Preserve, it was determined to be documented in a County Preserve. The results were provided by MSCP covered species and by County Preserve. The preliminary results are included in this section. Final results will be presented in the 2020 Annual Report.

The County Preserves have documented occurrences for 42 MSCP covered species (**Appendix J**). There are 23 MSCP covered plant, two MSCP covered reptile, 15 MSCP covered bird, and two MSCP covered mammal species documented in County Preserves. Of the 30 County Preserves evaluated, 25 have documented MSCP covered species.

Some MSCP covered species are widespread across the County Preserves and occurrences are protected in several different locations (**Appendix J**). This allows for the protection of key regional populations in difference geographical areas, supporting MSCP Subarea Plan Objective 6, “*Provide for the conservation of key regional populations of the covered species, and representation of sensitive habitats and their geographic subassociations in biologically functioning units.*” The most widespread MSCP covered plant species are the coast barrel cactus and variegated dudleya, documented in six and five County Preserves, respectively. Blainville’s horned lizard is documented in 16 County Preserves and Belding’s orange-throated whiptail is documented in 14. The most widespread bird species are the southern California rufous-crowned sparrow, documented in 17 County Preserves; coastal California gnatcatcher, documented in 14 County Preserves; and Cooper’s hawk, documented in 14 County Preserves. The most widespread mammal is southern mule deer, documented in 13 County Preserves.

Other MSCP covered species are documented only in a single County Preserve (**Appendix J**). This includes Del Mar manzanita in Lusardi Creek Preserve, Otay mesa mint in Otay Ranch Preserve, San Diego thornmint in Sycamore Canyon and Goodan Ranch Preserve, ferruginous hawk and white-faced ibis in Del Dios Highlands Preserve, and Swainson’s hawk in Holly Oaks.

County Preserves conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mountain lion, southern mule deer, and golden eagle (**Appendix J**). Mountain lions are documented in four County Preserves (Barnett Ranch Preserve, Boulder Oaks Preserve, Luelf Pond Property, and Sycamore Canyon and Goodan Ranch Preserve). Southern mule deer is documented in 13 County Preserves (Barnett Ranch Preserve, Boulder Oaks Preserve, Del Dios Highlands Preserve, El Capitan Preserve, El Monte Park, Lakeside Linkage Preserve, Lawrence and Barbara Daley Preserve, Louis A. Stelzer Preserve, Oakoasis Preserve, Otay Ranch Preserve, Ramona Grasslands Preserve, Stoneridge Preserve, and Sycamore Canyon and Goodan Ranch Preserve). Golden eagles are documented in six County Preserves (Barnett Ranch Preserve, Del Dios Highlands Preserve, El Capitan Preserve, Luelf Pond Property, Ramona Grasslands Preserve, and Sycamore Canyon and Goodan Ranch Preserve). Conservation of habitat for these species contributes to MSCP Subarea Plan Objective 7 *“Conserve large interconnected blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nesting sites.”*

# CHAPTER 6

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## Preserve Management



**County Rangers control invasive, non-native plants at Oakoasis Preserve to benefit MSCP covered species and habitats.**

Preserve management within the MSCP Subarea is an important element of the MSCP Preserve success and the overall success of the MSCP Subarea Plan. The overall management goal of the MSCP Subarea Plan is to ensure that the biological value and function of natural resources are maintained or improved over time, where land is preserved as part of the MSCP through acquisition, regulation (the discretionary permit process), mitigation or other means. In conformance with IA Section 10.9, *Preserve Management*, and Section 10.10, *Preserve Management Program*, the County is responsible for managing the land it owns or acquires as well as ensuring that other private mitigation lands dedicated to the County within the MSCP Preserve are managed consistent with the MSCP Subarea Plan. This chapter summarizes the stewardship activities in County Preserves and private mitigation areas.

## 6.1 Resource Management Plans

The County has prepared or is preparing 17 RMPs in the MSCP Subarea Plan Area (**Table 13**). RMPs document biological and cultural resources onsite and provide guidance on management and preservation of the resources within County Preserves in accordance with Management Directives pursuant to the requirements of the MSCP Subarea Plan Framework Management Plan (County 2001) and Table 3-5 of the MSCP Plan. The County prepares RMPs for County Preserves larger than 300 acres or under 300 acres for County Preserves with unique habitat or species values. Their preparation is prioritized annually across all three MSCP Plan areas. RMP updates or additional baseline inventory surveys are completed for new acquisitions, including additions to existing County Preserves, and outdated RMPs. County Preserves with completed RMPs have annual work plans that prioritize MSCP covered species and habitat management each year. Management completed in the reporting year is summarized in Section 6.2 and **Appendix K**.

The County's RMPs and TMP are a coordinated stewardship, monitoring, and adaptive management program. The RMPs provide a framework for long-term stewardship/management and monitoring actions to protect biological resources on County Preserves. The TMP and annual work plans are used in conjunction with the RMPs. RMPs include a framework for general stewardship management activities (including public access) and are incorporated into the TMP by reference. Stewardship actions are generally implemented by ranger staff. The TMP is an adaptive implementation plan that includes focused goals and objectives for target MSCP covered species and habitats and detailed monitoring protocols. The TMP and monitoring results are provided in Chapter 7, *Preserve Monitoring and Research*. Adaptive management actions informed by TMP monitoring are included in Section 6.2, *Preserve Management of County Lands*.

In the reporting year, the County initiated baseline inventory surveys for one new preserve, Dictionary Hill, and new additions to the Sycamore Canyon and Goodan Ranch Preserve. RMP updates are in progress for Barnett Ranch Preserve, Boulder Oaks Preserve, Lusardi Creek Preserve, and Tijuana River Valley Regional Park, all of which are located within the MSCP Subarea Plan boundaries.

TABLE 13. RESOURCE MANAGEMENT PLANS FOR COUNTY PRESERVES

County Preserve	Baseline inventory surveys Completed	RMP Completed	RMP Revisions
1. Barnett Ranch Preserve	2001-2003, 2018	2004	In Progress
Holly Oaks Preserve <sup>b</sup>	2018	In Progress	
Luelf Pond Preserve <sup>b</sup>	2018	In Progress	
2. Boulder Oaks Preserve	2007, 2013	2008	In Progress
3. Dictionary Hill Preserve	In Progress		
4. Del Dios Highlands Preserve <sup>a</sup>	2008-2011	2011	
5. El Capitan Preserve	2008	2009	
6. El Monte Park	2008	2009	
7. Furby-North Property	2011	2012	
8. Lakeside Linkage Preserve	2008	2010	
9. Lawrence and Barbara Daley Preserve	2009-2010	2011	
10. Lusardi Creek Preserve	2008, 2018	2009	
11. Otay Ranch Preserve	-1989-1991	2002	2018
12. Oakoasis Preserve	2008	2009	
13. Ramona Grasslands Preserve <sup>a</sup>	2009	2013	In Progress
14. Louis A. Stelzer Park	2008	2009	
15. Stoneridge Preserve	2012	2013	
16. Sycamore Canyon and Goodan Ranch Preserve	2008, 2016, In Progress	2013	In Progress
17. Tijuana River Valley Regional Park	2018	2007	In Progress

## NOTES:

<sup>a</sup> Ramona Grasslands and Del Dios Highlands Preserves span the MSCP Subarea Plan Area and draft North County MSCP Plan Area. They are included here because they are managed as a single unit.

<sup>b</sup> Holly Oaks and Luelf Pond are part of Barnett Ranch Preserve, Holly Oaks Preserve, and Luelf Pond Preserve will be managed under a single RMP.

SOURCE: Price, Jennifer. Email. 12 December 2019.

## 6.2 Preserve Management of County Preserves

Preserve management benefits the 48 MSCP covered species found across County Preserves. Stewardship and adaptive management activities performed in 2019 on County Preserves guided by TMP, annual work plans, and RMP management directives (MDs) are described below and summarized in **Appendix K**. For each open space park or preserve, its size and MSCP segment are provided. County Preserves spanning multiple MSCP Plan areas or ownerships are acknowledged. MSCP covered species, other sensitive species, and habitats benefited by preserve management activities are identified. The following categories are used to link management actions to TMPs, annual work plans, and RMPs.

- **Habitat restoration** actions are habitat or species-specific. These actions are guided by the TMP and annual work plans.
- **Invasive, non-native plant and animal control** implements MD A.3. *Reduce, control, or where feasible eradicate invasive, non-native fauna known to be detrimental to native species and/or the local ecosystem*, MD B.2. *Reduce, control, or eradicate non-native flora known to be detrimental to native species and local ecosystem*, B.3. *Manage and minimize the expansion of invasive, non-native flora within the Preserve*, and corresponding sub-directives.
- **Access control** implements MD C.1. *Limit types of public uses to those appropriate for the Preserve*, C.2. *Manage public access in sensitive biological and cultural resource areas within the Preserve*, C.5. *Install and maintain fencing and gates within the Preserve*, C.6. *Properly maintain access roads, staging areas and trails for user safety, to protect natural and cultural resources, and to provide high-quality user experiences*, C.7. *Install, and maintain appropriate signage to effectively communicate important information to Preserve visitors*, D.1. *Maintain a safe and healthy environment for Preserve users*, D.2. *Publicize and enforce regulations regarding littering/dumping*, and corresponding sub-directives.
- **Fire management** implements MD B.4. *Provide for fire management activities that are sensitive to natural and cultural resources* and corresponding sub-directives.
- **Environmental education** implements MD C.3. *Provide interpretive and educational materials* and corresponding sub-directives.

As a standard management practice, dead or dying trees in the County Preserves are replaced with habitat appropriate native tree species that include coast live oak, Engelmann oak, sycamore, cottonwood, and arroyo willow, among other species. Replacement of dead or dying trees benefits MSCP covered species by providing habitat for nesting birds and cover for foraging amphibians. Invasive, non-native plant treatment and removal is also conducted on County Preserves and the targeted plant species may not be specified but would most likely include mustard and non-native annual grasses, among other species.

## Barnett Ranch Preserve

**MSCP Subarea Plan: 646 acres**

**Segment: Metropolitan-Lakeside-Jamul Segment**

**Draft North County MSCP: 62 acres**

Management benefits the nine MSCP covered species known to occur on or utilizing the Preserve, which are arroyo toad, Belding's orange-throated whiptail, Blainville's horned lizard, Cooper's hawk, golden eagle, southern California rufous-crowned sparrow, western bluebird, southern mule deer, and mountain lion. Management actions include the following.

- **Habitat restoration.** The Barnett Ranch Preserve solar well was repaired to provide drinking water for wildlife in the Preserve (pictured below). The supplemental water provides water to native wildlife, including mule deer and mountain lion, during the dry season. Native plant maintenance continued for the 2-acre restoration area where 17 trees and 20 shrubs were planted in 2018. This includes trucking in water for supplemental watering and weeding of the project area.

- **Invasive, non-native plant control.** Goats head, Russia thistle, and milk thistle treatment and removal occurred over seven acres using hand-pulling and herbicide.
- **Access control.** County Park Rangers installed 18 new signs for the staging area and along the trails to prevent unauthorized trail use and illegal dumping of trash. Daily patrols were established to stop dumping and littering within the staging area.
- **Fire management.** Approximately three acres of existing firebreaks, close to residential property, were maintained using mowers and string trimmers along Deviney Road.
- **Environmental education.** County Park Rangers hosted multiple discovery tables and docent tours which attracted 140 visitors.



**The Barnett Ranch Preserve solar well was repaired to provide drinking water for wildlife in the Preserve.**

## Boulder Oaks Preserve

**MSCP Subarea Plan: 2,016 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the 11 MSCP covered species known to occur on the Preserve, which are felt-leaved monardella, Lakeside ceanothus, Orcutt's brodiaea, San Miguel savory, coast horned lizard, Blainville's horned lizard, Belding's orange-throated whiptail, coastal California gnatcatcher, Cooper's hawk, southern California rufous-crowned sparrow, western bluebird, and southern mule deer.

Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 110 trees, including 30 coast live oaks, 70 Engelmann oaks, and 10 western sycamores. This replaced the 23 dead trees that were removed. Irrigation was installed for plant establishment.
- **Invasive, non-native plant control.** Invasive, non-native plant removal efforts included hand pulling, and herbicide application across 18 acres. Target species included mustard weed (five acres), dyer's rocket (one acre), and milk thistle (five acres). This threat abatement allows for higher-quality habitats in the Preserve for all the MSCP covered species.
- **Access control.** Four new 'No Public Access' signs and one metal gate were installed to prevent unauthorized access. Access control measures also included the repairs of a 10' wire fence and a 300' wood rail. County Park Rangers also removed the cattle from the land and the Preserve is currently in a "Rest Period." Game cameras have been installed throughout the preserve to monitor wildlife and unauthorized access.
- **Fire management.** Approximately six acres of firebreak was maintained along the entry road, 15' on each side.
- **Environmental education.** County Park Rangers held three volunteer patrol and docent meetings to help educate volunteers on rule enforcement and environmental topics which attracted 30 people.

## Damon Lane Park

**MSCP Subarea Plan: 29 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the MSCP habitat known to occur on the Park, which is southern arroyo willow riparian forest. Management actions include the following.

- **Habitat restoration.** Six coast live oak trees planted in 2018 were watered to ensure establishment.
- **Fire management.** Maintenance of an existing one-acre firebreak was performed primarily along the perimeter of the Park with string trimmers and mowers.

## Del Dios Highlands Preserve

**MSCP Subarea Plan: 774 acres**

**Segment: Metropolitan-Lakeside-Jamul**

**Draft North County MSCP: 503**

Management benefits the 14 MSCP covered species known to occur on or utilizing the Preserve, which are Encinitas baccharis, wart-stemmed ceanothus, Belding's orange-throated whiptail, Blainville's coast horned lizard, coastal California gnatcatcher, Cooper's hawk, golden eagle, northern harrier, peregrine

falcon, southern California rufous-crowned sparrow, ferruginous hawk, white-faced ibis, western bluebird, and southern mule deer. Management actions included the following.

- **Habitat restoration.** County Park Rangers removed 303 invasive and dead trees, including 300 eucalyptus trees and 3 coast live oaks, from the Preserve.
- **Invasive, non-native plant control.** Invasive, non-native plant removal efforts included weed whip to treat four acres of black mustard.
- **Access control.** County Park Rangers installed one new watershed interpretive sign, one new Preserve kiosk sign, and one concrete fence. County Park Rangers also restored an illegal trail to prevent unauthorized use and to preserve wildlife.
- **Fire management.** The firebreak, approximately 3.5 acres in area, along San Diego Gas & Electric power pole trail was maintained using string trimmers, tractor mowers, and hedgers.

## Dictionary Hill Preserve

**MSCP Subarea Plan: 176 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the eight MSCP covered species known to occur on the Preserve, which are San Diego barrel cactus, San Diego goldenstar, variegated dudleya, Blainville's horned lizard, Belding's orange-throated whiptail, coastal California gnatcatcher, Cooper's hawk, and southern California rufous-crowned sparrow. Management actions included the following.

- **Habitat restoration.** Beavertail cactus cuttings were collected and planted to close an unauthorized trail. Plant and wildlife surveys were completed to help develop an RMP for the Preserve.
- **Invasive, non-native plant control.** Invasive, non-native plant control included the use of string trimmers and hand tools to treat approximately 32 acres of black mustard.
- **Access control.** County staff installed three new signs referencing rule postings and dog stations. A chain fence was repaired along the East Ivy Trailhead in order to deter illegal dumping, and unauthorized foot and vehicle access. County Park Rangers have started to close unofficial man-made trails to allow the preserve's flora to passively restore. Park Rangers have observed the ecosystem recovering from damage that it had received before it was owned by the County.
- **Fire management.** County Park Rangers performed approximately 4.5 acres of existing firebreak maintenance using string trimmers.
- **Environmental education.** Nine hikes, led by a County Park Ranger, were attended by a total of 150 visitors who learned about the native plant and animal species that can be found on the preserve.



**New trees and shrubs planted for cabin landscaping at Dos Picos Park.**

## Dos Picos Park

**MSCP Subarea Plan: 79 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the MSCP covered species known to occur on the Preserve. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 93 trees, including 60 coast live oak, 3 alders, 10 jacarandas, 10 palo verde trees, and 10 western redbuds. Approximately 170 shrubs and perennials were planted that included toyon, Mexican elderberry, fortnight lily, latana white, and silvergrass. County Park Rangers also planted new trees and shrubs which include elderberry, toyon and other species for cabin landscaping.
- **Invasive, non-native plant control.** Invasive, non-native plant treatment and removal efforts included the use of string trimmers, mowing, and hand-pulling application to 8.5 acres of mustard weed and stinging nettle.

- **Access control.** County Park Rangers have continued to educate visitors in order to prevent off-trail activity, wildfires, and to protect wildlife within the park. County Park Rangers repaired two wooden fences and a total of 15 new signs were installed which included information about cabin markers and railroad signs.
- **Fire management.** Existing firebreak (1.5 acres) was maintained along the Park's eastern service road using string trimmers and mowers.
- **Environmental education.** County Park Rangers held multiple educational activities including nature guided hikes, hawk talks, animal showing/presentations, and fire safety talks to more than 1,550 Park visitors.



**County Park Rangers held multiple educational activities including nature guided hikes, hawk talks, animal showing/presentations, and fire safety talks to more than 1,550 park visitors at Dos Picos Park.**

## El Capitan Preserve

**MSCP Subarea Plan: 2,795 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the nine MSCP covered species known to occur on the Preserve, which are felt-leaved monardella, Lakeside ceanothus<sup>15</sup>, Belding's orange-throated whiptail, Blainville's coast horned lizard, Cooper's hawk, golden eagle, southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Management actions included the following.

- **Habitat restoration.** Erosion damage along the El Capitan Preserve Trail is currently being controlled and restored by the Urban Corps crews.
- **Invasive, non-native plant control.** Invasive, non-native plant control efforts included removing four acres of pampas grass using hand tools.
- **Fire management.** Sheriff work crews and County Park Rangers worked together to remove vegetation (0.5 acre) to improve security and for fire prevention around the parking lot.
- **Environmental education.** County Park Rangers held three programs that were attended by 614 visitors. Two of the programs were warrior hikes, which were held on Veterans and Memorial Day, to support military families and encouraged people to challenge themselves on various hikes all while enjoying the County's open space lands.

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<sup>15</sup> Lakeside ceanothus is listed as Lakeside-lilac in the 1998 MSCP covered species list. It is now commonly referred to as Lakeside ceanothus.



**Warrior Hikes at El Capitan held on Veterans and Memorial Day support military families and encouraged people to challenge themselves on various hikes while enjoying the County's open spaces.**

## El Monte Park

**MSCP Subarea Plan: 106 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the three MSCP covered species known to occur on the Preserve, which are southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 33 trees, including 21 coast live oaks, 6 Engelmann oak, 4 California black walnuts, and 2 western redbuds.
- **Invasive, non-native plant control.** Invasive, non-native plant control measures implemented included hand pulling and herbicide application on goats head, fox tails, cheese weed, stinging-nettle, tree tobacco, Russian thistle, and black mustard over 21.25 acres within the Park.

- **Access control.** One concrete fence was repaired, and five new signs were installed to inform visitors of mountain lions and rules. Patrols have been established within the park to prevent illegal activities which include use of unauthorized trails and graffiti.
- **Fuel maintenance.** Park staff maintains a firebreak on the south side of the Park and around facility structures.
- **Environmental education.** County Park staff held a variety of interpretive programs including Discovery Programs, Hawk Talks, nature hikes, birding walks, and various community events for more than 536 Park visitors.

## Flinn Springs Park

**MSCP Subarea Plan: 73 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the two MSCP covered species known to occur on the Park, which are Cooper's hawk and southern mule deer. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 36 trees, including 15 Engelmann oaks and 21 coast live oak trees, as well as 10 shrubs which included white and Cleveland sage.
- **Invasive, non-native plant control.** Invasive, non-native plant control efforts included hand pulling approximately 0.45-acre of star thistle, black mustard, and castor bean. The Park is adjacent to Crestridge Ecological Preserve, owned by CDFW, so treatment of invasive, non-native plants on the Park benefits movement of animals through both properties and benefits native plants. County staff and volunteers rehabilitated 0.25 miles of trail by removing mustard weed and star thistle on National Trails Day.
- **Fuel maintenance.** Existing firebreak maintenance efforts took place along the western and southern boundary of the Park using string trimmers.
- **Environmental education.** County Park Rangers held multiple educational outreach events including Discovery Programs, ethnobotany studies, touch tables, nature hikes, and field trips with approximately 1,087 Park visitors participating in these events.

## Furby-North Property

**City of San Diego MHPA: 83 acres**

Management benefits the 10 MSCP covered species known to occur on the Property, which are coast (San Diego barrel) cactus, Otay tarplant, snake cholla, Belding's orange-throated whiptail, Blainville's coast horned lizard, coastal cactus wren,<sup>16</sup> coastal California gnatcatcher, least Bell's vireo, northern harrier, and southern California rufous-crowned sparrow. Management actions included the following.

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<sup>16</sup> The MSCP Subarea Plan lists the San Diego cactus wren as an MSCP covered species. At the time of adoption of the Subarea Plan, the San Diego cactus wren was identified as a sub-species of the coastal cactus wren. This is no longer the case. The San Diego cactus wren is now commonly known as the coastal cactus wren and is an MSCP covered species.

- **Invasive, non-native plant control.** Invasive, non-native plant treatment was conducted to remove of stinknet from the boundary of the Property.
- **Access control.** County Park Rangers installed four new fences, one three-wire fence, and repaired two signs in order to prevent illegal motorized vehicle use throughout the preserve. County Park Rangers also patrolled the Property several times a week and installed new signs, fencing, and gates on the Property to prevent unauthorized access into and across the Property. These actions allow for future active restoration of the unauthorized trails as outlined in the Furby-North Property RMP.

## Lakeside Linkage Preserve

**MSCP Subarea Plan: 135 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the eight MSCP covered species known to occur on the Preserve, which are Belding's orange-throated whiptail, Blainville's horned lizard, coastal cactus wren, coastal California gnatcatcher, Cooper's hawk, southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Other species and habitats targeted by management actions are Hermes copper butterfly and Diegan coastal sage scrub. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 46 trees, including 1 oak, 3 bottle brush trees, 21 jacarandas, 18 crepe myrtle trees, 3 strawberry trees, and 393 shrubs or perennials. *The Lakeside Linkage Preserve Cactus Wren and Hermes Copper Butterfly Habitat Restoration* project includes plant installation across five acres (see Section 6.3, *Grant Funded Management Projects* for more information). Plants installed on the Property in 2019 included 500 cacti, 97<sup>17</sup> spiny redberry, and 500 buckwheat.
- **Invasive, non-native plant control.** Russian thistle and tumbleweed were mowed or treated with herbicide across 10.75 acres. (Herbicide treatment was limited to 0.75 acres for Russian thistle.)
- **Fire management.** County Park Rangers maintained existing firebreaks within the Preserve.
- **Environmental education.** County Park Rangers held 6 educational outreach events which were attended by 487 Park visitors.

## Lawrence and Barbara Daley Preserve

**MSCP Subarea Plan: 604 acres**

**Segment: Metropolitan-Lakeside-Jamul Segment**

Management benefits the eight MSCP covered species known to occur on the Preserve, which are Palmer's goldenbush, Blainville's horned lizard, Belding's orange-throated whiptail, Cooper's hawk northern harrier, southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Additional species and habitats benefited are nesting habitat for great horned owl. Management actions included the following.

<sup>17</sup> The remaining 403 spiny redberry plants intended for installation were too small and not well rooted; therefore, installation of these plants will be delayed until early 2020.

- **Habitat restoration.** County Park Rangers planted 150 trees, including 140 coast live oaks and 10 sycamores—to replace removed trees.
- **Invasive, non-native plant and insect control.** Invasive, non-native plant control included the use of mowers to remove 15 acres of black mustard. Invasive shot hole borer infected trees—50 coast live oaks—were treated and removed.
- **Access control.** County Park Rangers repaired one 2,000-foot fence and installed 13 new signs to inform visitors of campsite markers and hours of operation.
- **Fire management.** A 3-acre firebreak was maintained.
- **Environmental education.** County Park Rangers held 3 environmental education programs that engaged 37 participants.

## Los Peñasquitos Canyon Preserve

**City of San Diego MHPA: 277 acres**

Management benefits the one MSCP covered species known to occur on the Preserve, which is least Bell's vireo. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 57 trees, including 17 coast live oak, 12 Fremont cottonwoods, 10 western sycamores, and 18 toyon, and 54 shrubs, perennials, and cacti. County Park Rangers also started Boneyard field beautification project which included planting a row of trees and plants to beautify old wire fences.
- **Invasive, non-native plant control.** Invasive, non-native plant control measures included use of string trimmers, mowers, and hand tools on approximately 46 acres to control yellow star thistle, Russian thistle, honey mesquite, fennel, black mustard, stinkwort, and curly dock.
- **Access control.** Along Ranch House Crossing Trail, County Park Rangers sectioned off unauthorized trails, implemented erosion control measures, and repaired the trail in a one-acre strip of trail. County Park Rangers repaired the wooden fence that was installed last year and installed 11 new directional trail signs. County Park Rangers continued to patrol the Preserve to educate visitors and minimize unauthorized access to Los Peñasquitos Creek. County Park Rangers also repaired many trails damaged by flooding and storms.
- **Fire management.** Existing firebreak maintenance was performed on the south rim of the canyon, north of Capcano Road and East of the eastern terminus of Alkaid Drive.
- **Environmental education.** Environmental education efforts included a Creek Walk, High Tech High Tour, 30 Discovery Programs, Tecolote Family Day, and Hey Pollinator events. These programs helped educated over 1,149 participants.

## Luelf Pond Preserve

**MSCP Subarea Plan: 87 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the six MSCP covered species known to occur on or utilizing the Preserve, which are Blainville's horned lizard, Cooper's hawk, golden eagle, western bluebird, southern mule deer, and mountain lion. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 21 coast live oak trees and removed 1 dead coast live oak.
- **Invasive, non-native plant control.** Invasive, non-native plant control included shoveling and hand pulling one-acre of tobacco tree and using string trimmers and hand pulling on three acres of black mustard.
- **Access control.** Four new signs were installed that encompassed interpretive displays, entry signage, and rules about dog.
- **Fire management.** County Park Rangers maintained 1-acre of firebreak along Duck Pond Lane.

## Louis A. Stelzer Park

**MSCP Subarea Plan: 373 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the eight MSCP covered species known to occur on the Park, which are Lakeside ceanothus, San Diego goldenstar, Belding's orange-throated whiptail, Blainville's horned lizard, northern harrier, southern California rufous-crowned sparrow, and southern mule deer. Management actions included the following.

- **Habitat restoration.** Acorns were collected for fall 2020 planting.
- **Invasive, non-native plant control.** Invasive, non-native plant control included shoveling, hand pulling, and using string trimmers on 24 acres of castor bean and black mustard.
- **Access control.** Four new signs, main access bridge, retaining wall, and worn-out railings were repaired.
- **Environmental education.** County Park Rangers led 15 educational programs for 2,000 park visitors. Education Programs included Geology Science Night, "It's How We Live" Fair, School Visits, Moon Rise Hike, Meeker Group Campout, "Go Play Get Fit" special event, Park Hike Display animal interpretation, Day of Service, and Discovery Program.



**Girl Scouts planting acorns in the campground at Louis A. Stelzer Park**

## Lusardi Creek Preserve

**MSCP Subarea Plan: 224 acres**

**Segment: Lake Hodges**

Management benefits the 10 MSCP covered species known to occur on the Preserve, which are coast barrel cactus, Del Mar manzanita, variegated dudleya, Blainville's horned lizard, coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, northern harrier, southern California rufous-crowned sparrow, and southern mule deer. Management actions included the following.

- **Invasive, non-native plant control.** Invasive, non-native plant control included treatment of 4.5 acres of arundo within the Preserve. Invasive, non-native plant control was conducted from February 2019 through September 2019 within the 0.75-acre variegated dudleya management area at the Lusardi Creek Preserve. All variegated dudleya plants were flagged prior to treatment to avoid impacts. Non-native plants within 18 inches of the variegated dudleya plants were treated using mechanical and herbicide applications. Non-native plants were trimmed with a mechanical string

trimmer to a height of 2-inches from the ground and raked, bagged, and disposed of off-site. The cut invasive non-native plants were sprayed with herbicide to minimize regrowth. As snail damage was noted in March 2019, an organic snail bait was applied around the perimeter of each variegated dudleya plant at a distance of 24 inches or greater from the target plant in April 2019. Snail kill was noted after this date; however, damage of the plants seemed to continue. Rabbit scat was noted in the area; it is likely at least some of the damage to the dudleya plants were done by rabbits (ESA 2019).

- **Fire management.** County Park Rangers maintained approximately 2-acres of firebreaks in the Preserve.

## Oakoasis Preserve

**MSCP Subarea Plan: 436 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the six MSCP covered species known to occur on the Preserve, which are Lakeside ceanothus, Blainville's horned lizard, Cooper's hawk, southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Management actions included the following.

- **Habitat restoration.** As part of on-going efforts to maintain habitat and augment the oak tree population in the Preserve, five large boxed coast live oak trees were planted.
- **Invasive, non-native plant control.** Invasive, non-native plant control included the use of hand pulling, hand tools, and herbicide use to 29 acres of stinkwort, pampas grass, and poison oak.
- **Access control.** County Park Rangers installed two new split-rail fences and six enforcement signs. County Park Rangers continue to patrol the preserve multiple times a day to prevent illegal dumping and parking along the entrance road.
- **Fire management.** Firebreaks were maintained using string trimmers around County Park Ranger residences and volunteer pads.
- **Environmental education.** Environmental education programs included Star Parties, Haunted Trail Hikes, Women in the Wild, a Day of Service, and volunteer high school work crews which attracted over 1,345 visitors. The Star Party is a monthly program that offers a twilight hike led by a County Park Ranger and sky viewing with San Diego Astronomy Association.



**Star Party-goers prepare for a twilight hike with a ranger at Oakoasis Preserve**

## Otay Lakes Park

**MSCP Subarea Plan: 79 acres**

**Segment: South County**

Management benefits the one MSCP covered species known to occur on the Park, which are variegated dudleya. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 28 shrubs and perennials. County Park rangers removed two dead trees that were hazardous to visitors.
- **Invasive, non-native plant control.** Invasive, non-native plant control included the use of hand tools to remove invasive, non-native plant species over a 30-acre area.
- **Fire management.** Existing firebreaks were maintained by County Park staff using string trimmers.

- **Environmental education.** Environmental outreach efforts included 8 County Park Ranger-led nature hikes, and 1 touch table which were attended by 112 participants.

## Otay Valley Regional Park

**MSCP Subarea Plan, City of San Diego, and City of Chula Vista: 3,106 acres**

**Segment: South County**

Management benefits the two MSCP covered species known to occur on the Preserve, which are coastal California gnatcatcher and least Bell's vireo. Habitats, such as maritime succulent scrub, freshwater marsh, coastal sage scrub were enhanced. Management actions included the following.

- **Invasive, non-native plant control.** County Park Rangers used hand tools and mowers for invasive, non-native plant removal over seven acres.
- **Access control.** County Park Rangers installed 20 “no off-roading” signs and increased weekly patrols to prevent unauthorized use of motorized vehicles.
- **Environmental education.** Environmental outreach efforts included Discover Otay Valley Regional Park Day Program and a nature talk that was attended by approximately 190 visitors.

Additional management and monitoring efforts conducted by the City of San Diego are reported in the City of San Diego MSCP Annual Report.<sup>18</sup>

## Ramona Grasslands Preserve

**MSCP Subarea Plan: 276 acres**

**Segment: Metropolitan-Lakeside-Jamul**

**Draft North County MSCP: 3,214**

Management benefits the five MSCP covered species known to occur on the MSCP Subarea Plan Area portion of the Preserve, which are Belding’s orange-throated whiptail, Blainville’s horned lizard, southern California rufous-crowned sparrow, golden eagle, and southern mule deer. Additional MSCP Subarea Plan covered species documented in the draft North County MSCP Plan area portions are Engelmann oak, San Diego thornmint, spreading navarretia, San Diego fairy shrimp, arroyo toad, southwestern pond turtle, western spadefoot toad, western burrowing owl, grasshopper sparrow, tri-colored blackbird, Cooper’s hawk, Canada goose, ferruginous hawk, northern harrier, peregrine falcon, long-billed curlew, white-faced ibis, western bluebird, coastal California gnatcatcher, southern mule deer, pallid bat, and Townsend’s big-eared bat. Other species and habitats targeted by management actions are Diegan coastal sage scrub, riparian, non-native grassland, and Stephens’ kangaroo rat. A majority of management activities in 2019 occurred in the portion of the Preserve located in the draft North County MSCP. Throughout the Preserve, County Park Rangers documented 16 golden eagle sightings in the 2019 season. Management actions included the following.

<sup>18</sup> City of San Diego MSCP Annual Reports can be accessed here:  
<https://www.sandiego.gov/planning/programs/mscp/docsmaps/annualreport>

- **Habitat restoration.** County Park Rangers planted 41 trees, including 31 coast live oaks and 10 cottonwoods. County Park Rangers removed four dead trees that were hazardous to visitors.
- **Invasive, non-native plant control.** Invasive, non-native plant control included hand pulling, shoveling, and herbicide use to remove tobacco tree, tamarisk, and Russian thistle over approximately 32 acres. Invasive, non-native plant control was conducted in August 2019 at 15 vernal pools. Vernal pools were dry and native plants had generally senesced (or dormant). The treated pools had 20% or more of invasive, non-native plant cover. Target vernal pools were mechanically treated with string trimmers and native plant species were avoided. Debris was raked, bagged, and properly disposed of off-site. Herbicides were not used within vernal pool basins or within 10 feet of basin margins (ESA 2019).
- **Access control.** Fifteen new signs were installed to prevent illegal parking and unauthorized trail use. County Park Rangers also installed a 40-foot concrete fence, repaired 2 metal gates and repaired a 4,700- foot boundary fence in order to help protect the Preserve's natural resources and prevent unauthorized vehicle activity.
- **Environmental education.** Environmental outreach efforts included County Park Rangers staffing 35 touch table events, 4 ranger hikes, 1 nature observation journal, and 5 other events led by County Park Rangers which attracted more than 859 visitors. The touch tables and nature observation journals have been a great way for County Park staff to connect visitors with nature and teach them about the flora and fauna within the Preserve. Nature Observation journals are journals for illustrating and recording observations of the natural world. During the 2019 season, the Preserve had approximately 50 visitors per day.



**One of the many touch table events staffed by County Park Rangers and volunteers at Ramona Grasslands Preserve.**



**Children creating their own nature observation journals before going on a guided hike at Ramona Grasslands Preserve.**

## Stoneridge Preserve

**MSCP Subarea Plan: 245 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the seven MSCP covered species known to occur on the Preserve, which are Belding's orange-throated whiptail, Blainville's coast horned lizard, coastal California gnatcatcher, Cooper's hawk, southern California rufous-crowned sparrow, western bluebird, and southern mule deer. Other species and habitats targeted by management actions are Diegan coastal sage scrub, southern mixed chaparral. Management actions included the following.

- **Invasive, non-native plant control.** Invasive, non-native plant control included the use of string trimmers to remove 1-acre of black mustard. County staff are also working on the removal of a canary date palm from the Preserve.

- **Access control.** County Park Rangers continued removing trash/debris along Mountain View Road, Rangers have started to patrol the area four times a week in order to prevent illegal dumping on the Preserve.
- **Fire management.** An existing firebreak was maintained using string trimmers behind facility structures on Kelley Drive.

## Sweetwater Regional Park

**MSCP Subarea Plan: 495 acres**

**Segment: South County**

Management benefits the two MSCP covered species known to occur on the Park, which are coastal California gnatcatcher and least Bell's vireo. Other species and habitats targeted by management actions are riparian and aquatic. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 34 trees, including 7 Engelmann oaks, 13 incense cedar, 2 Torrey pines, 3 coast live oaks, 2 Italian stone pine, and 7 palo verde trees, as well as 66 shrubs and perennials, namely, ceanothus, toyon, Cleveland sage, California buckwheat, white sage, and valentine bush.
- **Invasive, non-native plant control.** Invasive, non-native plant control included the use of hand tools and power tools to treat and remove approximately 26 acres of tamarisk, Mexican palm, canary palm, and eucalyptus trees.
- **Access control.** County Park Rangers increased patrols in order to prevent vandalism, theft, dumping, and unauthorized camping and parking. County Park Rangers installed 22 new signs including stop signs, biking, no parking, and no smoking signs. Three new fences were installed and one wooden fence was repaired.
- **Fire management.** Approximately 13 acres of firebreak was maintained using mowers, power tools, and manual labor.
- **Environmental education.** Public education and outreach efforts to approximately 1,160 park visitors included nature hikes, reptile programs, as well as hawk and bug talks by County Park Rangers.

## Sycamore Canyon and Goodan Ranch Preserve

**MSCP Subarea Plan: 2,572 acres**

**Segment: Metropolitan-Lakeside-Jamul**

Management benefits the 14 MSCP covered species known to occur on the Preserve, which are San Diego thorn-mint, variegated dudleya, willow monardella, Belding's orange-throated whiptail, Blainville's horned lizard, burrowing owl, coastal California gnatcatcher, Cooper's hawk, golden eagle, northern harrier, southern California rufous-crowned sparrow, western bluebird, mountain lion, and southern mule deer. Other habitats targeted by management actions are southern coast live oak riparian

forest, coast live oak woodland, and southern mixed chaparral. Management actions included the following.

- **Habitat restoration.** County Park Rangers planted 6 coast live oak trees and 26 shrubs, perennials, and cacti, namely, white sage, Mexican elderberry, prickly pear, laurel sumac, and monkey flower. County Staff also planted 40 coast live oak trees within one acre of land to help with habitat restoration. Three trees hazardous to Preserve visitors (dying trees threatening to fall on trails) were removed.
- **Invasive, non-native plant control.** Invasive, non-native plant control efforts included hand pulling and weed whip application to black mustard, tamaris, and pampas grass over approximately eight acres on the Preserve.
- **Access control.** County Park staff installed one new habitat protection and five new sensitive habitat signs, as well as eight new wire fences in order to prevent unauthorized trail usage.
- **Fire management.** Existing firebreaks were maintained along the SR-67 roadways, around the staging area parking lot and visitors center, and included light trimming/pruning of native shrub habitat in the staging areas.
- **Environmental education.** Public education and outreach efforts included Raptor Programs, a STAR party, Eagle Scout projects, and a volunteer workday, that were attended by more than 96 participants.



### Maintenance of firebreak along SR-67 at Sycamore Canyon and Goodan Ranch Preserve.

## Tijuana River Valley Regional Park

City of San Diego: 1,800 acres

Management benefits the 12 MSCP covered species known to occur on the Preserve, which are coast barrel cactus, Orcutt's bird's-beak, Torrey pine (planted), wart-stemmed ceanothus,<sup>19</sup> Belding's orange-throated whiptail, Blainville's horned lizard, coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, northern harrier, southern California rufous-crowned sparrow, and tricolored blackbird. Riparian habitat was also targeted by management actions. Management actions included the following.

- **Invasive, non-native plant and insect control.** Invasive, non-native plant control included hand pulling, string trimmers, chainsaws, pruning saws, and herbicide application to approximately 5.3 acres of Russian thistle, castor bean, arundo, pokeweed, tobacco tree, nasturtium, and various types of

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<sup>19</sup> The common name for this species has changed from wart-stem-lilac to wart-stemmed ceanothus.

grasses within the *Poaceae* family. The County continued enhancement and restoration of the Park by continuing to manage for Kuroshio Shothole Borer which has a strong presence in the Park.

- **Access control.** County Park staff installed 14 new directional/informational signs and a three-wire fence as well as repaired a 60-foot lodge pole fence. County Park staff also patrolled the park daily to prevent illegal dumping and to remind visitors not to use unauthorized trails which cause erosion and impacts native plant and animal species.
- **Fire management.** Approximately 2-acres of existing firebreaks were maintained using string trimmers, chainsaws, and herbicide.
- **Environmental education.** A total of 11 educational nature programs were attended by approximately 89 visitors.

### 6.3 Grant Funded Management Projects

The County implemented six grant funded management projects across six County Preserves in the reporting year. These projects benefitted seven MSCP covered species, which are coastal cactus wren, orange-throated whiptail, northern harrier, Cooper’s hawk, arroyo toad, and southwestern pond turtle, and included habitat restoration, access control, and invasive, non-native plant control. Grant-funded projects occurred at Lakeside Linkage Preserve, Sycamore Canyon and Goodan Ranch Preserve, Otay Lakes Park, Otay Ranch Preserve, Ramona Grasslands Preserve, and Tijuana River Valley Regional Park. Grant funding totals \$2,613,334 and was provided by seven grants. Grant funds were from two San Diego Association of Governments (SANDAG) *TransNet* Environmental Mitigation Program (EMP) grants, one California Natural Resources Agency (CNRA) Proposition 84 River Parkways grant, one CDFW Natural Community Conservation Planning Local Assistance Grant (NCCP LAG), one CDFW Proposition 1 grant, one San Diego River Conservancy (SDRC) Proposition 1 grant, and one Wildlife Conservation Board (WCB) Proposition 68 grant. Two grants, the SDRC Proposition 1 and WCB Proposition 68 grants, were awarded in 2019 and will continue into 2020.

The County actively seeks grants to fund stewardship activities. These activities meet the MSCP Subarea Plan’s fourth Specific Objective to “implement a program for the conservation and management of habitats of federal and state endangered, threatened, or rare species,” as well as the MSCP Subarea Plan’s Biological Goal (Section 1.2.1) to help conserve both diversity and functionality of the southwestern county ecosystem through preservation and adaptive management.

#### Lakeside Linkage Preserve Cactus Wren and Hermes Copper Butterfly Habitat Restoration

**Funding Source:** WCB Proposition 68

**Funding Amount:** \$423,000

**Project Timeline:** March 2019 – March 2022

**Target Species or Habitat:** Coastal cactus wren and Hermes copper butterfly

**Management Action:** Invasive, non-native plant control and habitat restoration and enhancement

The *Lakeside Linkage Preserve Cactus Wren and Hermes Copper Butterfly Habitat Restoration* project will restore and enhance two acres of coastal cactus wren habitat and two acres of Hermes copper butterfly habitat in Lakeside Linkage Preserve over a two-year period. The project is funded by a WCB 2019 Proposition 68 grant of \$423,000 awarded to the County in March 2019. There are three project objectives: (1) Initiate a 3-year invasive, non-native plant control program throughout the Preserve to enhance the existing coastal sage scrub habitat and benefit sensitive species; (2) Install 500 cholla cactus to expand nesting and foraging habitat for coastal cactus wren; and (3) Install 500 spiny redberry and 500 California buckwheat plants to supplement the existing population of spiny redberry and California buckwheat to expand potential habitat for Hermes copper butterfly. In 2019, invasive, non-native plant control program was initiated and 500 cholla cactus, 500 California buckwheat, and 97 spiny redberry were planted. In 2020, invasive, non-native plant control will continue as needed and the remaining 403 spiny redberry plants will be installed.

## Sycamore Canyon and Goodan Ranch Preserve Targeted Non-Native Plant Treatment

**Funding Source:** SDRC Proposition 1  
**Funding Amount:** \$203,000  
**Project Timeline:** November 2019 – January 2022  
**Target Species or Habitat:** Riparian habitat  
**Management Action:** Invasive, non-native plant control

The *Sycamore Canyon and Goodan Ranch Preserve Targeted Non-Native Plant Treatment* project will enhance 32 acres of riparian habitat along Sycamore Canyon Creek through the implementation of invasive, non-native plant control over a 2-year period. The project is funded by a SDRC Proposition 1 grant of \$203,000 awarded to the County in 2019. This project funds the treatment and removal of a variety of invasive, non-native plants within the County's Sycamore Canyon and Goodan Ranch Preserve. Approximately 32 acres of primarily riparian habitat along Sycamore Canyon Creek has been targeted for this project, which includes 21 mature eucalyptus trees, stands of tamarisk, and pampas grass among other invasive, non-native plants. Treatment and removal of these plants is expected to enhance the quality of the riparian habitat in the Preserve which supports several MSCP covered species including Belding's orange-throated whiptail, northern harrier, and Cooper's hawk. This project will start in early 2020 and will be completed in 2022.

## Quino Checkerspot Butterfly Restoration and Enhancement

**Funding Source:** *TransNet* EMP and NCCP LAG  
**Funding Amount:** \$44,000 and \$42,414, respectively  
**Project Timeline:** January 2017- January 2019 and February 2017- April 2019, respectively  
**Target Species or Habitat:** Quino checkerspot butterfly  
**Management Action:** Habitat restoration, access control, and invasive, non-native plant control

The *Quino Checkerspot Butterfly Restoration and Enhancement* project restored and enhanced Quino checkerspot butterfly habitat in Otay Lakes Park and Otay Ranch Preserve by implementing access control, habitat restoration, and invasive, non-native plant control over a 3-year period. The project was funded by a *Transnet* EMP grant of \$44,000 and NCCP LAG of \$42,414 awarded to the County in 2017.

The project was completed in April 2019 and habitat restoration was achieved using the following methods.

- **Access control, host plant seeding, and invasive, non-native plant control.** Quino checkerspot butterfly habitat was expanded through the closure, restoration, and protection of 0.4 acres of non-essential roads and invasive, non-native plant control at Otay Lakes Park. The roads were fenced off and seeded with plantain (*Plantago erecta*), the Quino checkerspot butterfly host plant. Treatment and removal of invasive, non-native plants occurred both within and outside the active restoration areas. The restored site successfully supported the germination of plantain patches and suitable habitat for the butterfly was expanded. Adult and/or Quino larvae were observed on-site during every year of the project. The County will continue to ensure the viability of the restored habitat through regular monitoring and maintenance by County Parks staff.
- **Invasive, non-native plant control.** Quino checkerspot butterfly habitat was restored across six acres at Otay Ranch Preserve. Invasive, non-native grasses decreased in abundance, density, and distribution. This helped promote the growth of dot-seed plantain within the project site along with other potential alternate host plants existing on-site including purple owl's clover (*Castilleja exserta*) and numerous other nectar plants.

The County will continue to seek grant funding opportunities to further enhance Quino checkerspot butterfly habitat in the unincorporated county.

## Ramona Grasslands Preserve Bullfrog Eradication/Arroyo Toad Enhancement

**Funding Source:** *TransNet* EMP

**Funding Amount:** \$80,000

**Project Timeline:** December 2018 – June 2020

**Target Species or Habitat:** Arroyo toad and southwestern pond turtle

**Management Action:** Invasive, non-native animal control

The *Ramona Grasslands Preserve Bullfrog Eradication/Arroyo Toad Enhancement* project will control invasive bullfrogs to enhance arroyo toad and southwestern pond turtle habitat in Ramona Grasslands Preserve over an 18-month period. The project is funded by a *TransNet* EMP grant of \$80,000 awarded to the County in 2018. The project is underway and will enhance an existing population of arroyo toads and increase habitat suitability for the establishment of a southwestern pond turtle population. Enhancement efforts (i.e., bullfrog eradication) are focused in the Santa Maria Creek in the Preserve and in the effluent treatment ponds on the adjacent Ramona Municipal Water District property. Bullfrogs are an invasive species in the county and are known to prey on juvenile and adult arroyo toads and juvenile southwestern pond turtles, posing a threat to the success of these animal species. It is anticipated that eradicating the bullfrogs in this area will improve reproductive success of arroyo toads and southwestern pond turtles. Eradication efforts began in 2019 and will continue into 2020.



**Dot-seed Plantain growing at the Otay Ranch Preserve restoration site. (Photo credit: RECON Environmental Inc.)**

## Tijuana River Valley Regional Park Brown Property Fill Removal/Restoration

**Funding Source:** CDFW Proposition 1 Grant

**Funding Amount:** \$1,328,000

**Project Timeline:** June 2018- April 2021

**Target Species or Habitat:** Least Bell's vireo

**Management Action:** Habitat restoration

The *Tijuana River Valley Regional Park Brown Property Fill Removal/Restoration* project will prepare the restoration site and complete planning for a restoration project for least Bell's vireo in Tijuana River Valley Regional Park over a nearly 3-year time period. The project is funded by a CDFW Proposition 1 grant of \$1,328,000 awarded to the County in 2017. Restoration site preparation includes removal of illegally placed fill dirt on and adjacent to the Brown property in the Park. Restoration planning will be for the main Tijuana River channel hydrology. Restoration planning includes technical studies, design, and environmental review and documentation. The project commenced in summer 2018 and will be completed in summer 2021. In 2019, technical studies and drafting a preliminary design continued, as

well as research for environmental documentation, habitat restoration plans, and regulatory agency permits.

## Tijuana River Valley Regional Park Invasive Removal, Restoration and Interpretive Signage

**Funding Source:** CNRA Proposition 84 River Parkways Grant Program

**Funding Amount:** \$492,920

**Project Timeline:** October 2016 – May 2020

**Target Species or Habitat:** Least Bell's vireo

**Management Action:** Invasive, non-native plant control and habitat restoration

**Management Action:** Invasive, non-native plant control and habitat restoration

The *Tijuana River Valley Regional Park Invasive Removal, Restoration and Interpretive Signage* project will have restored and enhanced least Bell's vireo habitat at Tijuana River Valley Regional Park over a nearly four-year period when it completes in May 2020. The project is funded by a CNRA's Proposition 84 River Parkways grant for \$492,920 awarded to the County in 2016. The funding supplemented the ongoing habitat restoration activities in the Tijuana River Valley Regional Park. The project removed invasive, non-native plants, particularly tamarisk, and restoration of the site by planting native plant species across 2-acres. In 2019, the site was visited once/month to spot treat invasive, non-native plants and to retreat tamarisk stumps as needed to prevent re-growth. Monitoring the success of native plant establishment occurred throughout the year and supplemental watering was decreased as plant establishment was deemed successful. By the end of 2019, all the project goals were met, and the submission of final reports and documentation is anticipated in early 2020. This project provided new habitat for several species within the Park including least Bell's vireo, an MSCP covered species.



**Successful native plant growth surrounds treated tamarisk stumps at Tijuana River Valley Regional Park. Habitat restoration and invasive, non-native plant control is funded by CNRA Proposition 84 River Parkways Grant Program.**

## 6.4 Preserve Management Partnerships

Eight County partners implemented nine management projects across nine County Preserves to benefit riparian, stream, wetland, coastal sage scrub, and chaparral habitats. Habitat restoration activities, including invasive, non-native plant species treatment, were implemented in Otay Lakes Park, Otay Ranch Preserve, Otay Valley Regional Park, Tijuana River Valley Regional Park, El Capitan Preserve, Lawrence and Barbara Daley Preserve, Del Dios Highlands Preserve, Santa Fe Valley Preserve, and Lusardi Creek Preserve. Partners were City of Chula Vista, California Department of Transportation (Caltrans), San Diego River Park Foundation (SDRPF), Alta Tierra, River Partners, Wildlife Release, Del Dios Habitat Protection League, and San Dieguito River Valley Conservancy.

The regular management, monitoring, and invasive, non-native species removal activities performed by County Rangers, staff, and contractors is augmented by other organizations and projects at various Parks and Preserves, including those detailed below. Through the Right-Of-Entry (ROE) permit process, DPR assists with the habitat restoration and enhancement projects proposed by outside government agencies,

municipalities, and environmental organizations that benefit the County's preserved lands. These projects not only support the County's management activities, but they also provide another source of stewardship to support the success of native and sensitive plant and animal species in County Preserves. For the individual projects detailed below, only County Preserves are mentioned, but many of the habitat management projects extend well outside of the County Preserves in the MSCP Subarea Plan.

## Restoration Below Savage Dam

**Lead Agency:** City of Chula Vista

**Project Timeline:** September 2017 – March 2020

**Target Species or Habitat:** Riparian habitat

**Management Action:** Habitat restoration, and invasive, non-native plant control

**County Preserves:** Otay Lakes Regional Park, Otay Ranch Preserve

The *Restoration Below Savage Dam* project will restore and enhance riparian habitat in Otay Lakes Regional Park and Otay Ranch Preserve along the Otay River over a 3-year period. In 2017, City of Chula Vista contractors began working on restoration efforts below the Savage Dam along the Otay River. The project first phase occurred in Otay Lakes Regional Park along the Otay River, upstream of the Otay Ranch Preserve. Restoration in Otay Lakes Regional Park was initiated in 2017 to ensure the viability of the downstream restoration in Otay Ranch Preserve. In 2019, invasive, non-native plant control targeted tamarisk, arundo, pepper trees, eucalyptus, and Canary Island date palms. Treatment activities included drilling large holes into the base of invasive trees/stalks which are then filled with herbicide, causing the tree to die in place. Treatment activities for tree species listed as a known host for the invasive shot hole borer were conducted in accordance with best management practices to prevent the spread of *Fusarium* spp. One acre of land within Otay Lakes Regional Park was treated and retreatments are currently underway, continuing into 2020.

## Johnson Canyon Habitat Restoration

**Lead Agency:** Caltrans

**Project Timeline:** January 2017 – December 2021

**Target Species or Habitat:** Riparian and coastal sage scrub habitat

**Management Action:** Habitat restoration and invasive, non-native plant control

**County Preserve:** Otay Valley Regional Park

The *Johnson Canyon Habitat Restoration* project will restore and enhance riparian habitat in Otay Valley Regional Park over a 5-year period. In 2017, Caltrans began a multi-year project restoring a 9.33-acre site in and adjacent to the creek bed within Johnson Canyon, which drains an ephemeral tributary of the Otay River. The project site spans Otay Valley Regional Park (1.41 acres) and a Caltrans property (7.92 acres). Project actions include invasive, non-native plant control, irrigation installation, and native plant establishment via active restoration. Caltrans subcontractors are currently performing retreatments of invasive, non-native plants and native plant establishment monitoring, which will continue through 2021.

## Wetland Restoration Phase 2

**Lead Agency:** Caltrans

**Project Timeline:** December 2016 – December 2022

**Target Species or Habitat:** Wetland habitat

**Management Action:** Habitat restoration and invasive, non-native plant control

**County Preserve:** Tijuana River Valley Regional Park

The *Wetland Restoration Phase 2* project will restore 10 acres of wetlands in Tijuana River Valley Regional Park over a 6-year period. Caltrans began *Phase 2* in December 2016. This project is a continuation of *Phase 1* of the restoration activity, which began in 2013, and involved mitigation associated with the Mid Coast Transit Project. Project elements include invasive, non-native plant control, debris/trash removal, native wetland plantings, and temporary irrigation for supplemental watering. Following the completion of the active restoration, a minimum of five years is dedicated to monitoring in order to ensure mitigation efforts have been successful. Restoration of wetland habitat benefits the MSCP covered species found within the park including least Bell's vireo, northern harrier, and Cooper's hawk.

## Invasive, Non-native Plant Removal

**Lead Agency:** SDRPF

**Project Timeline:** April 2017 – April 2021

**Target Species or Habitat:** Coastal sage scrub

**Management Action:** Invasive, non-native plant control

**County Preserve:** El Capitan Preserve

The *Invasive, Non-native Plant Removal* project will remove invasive, non-native plants on El Capitan Preserve and adjacent property over a 5-year period. In 2017, the SDRPF began a multi-year project which focuses on the treatment and removal of non-native invasive species on their property just south of the El Capitan Preserve boundary. SDRPF utilize the El Capitan Preserve Trail to access the project site for land management and vegetation and wildlife monitoring activities. This project includes the removal of invasive fountain grass and other noted invasive, non-native plants within a 0.25-mile buffer along the length of the trail within the Preserve to prevent spread into the SDRPF project area. Removal of invasive, non-native plants on adjacent SDRPF property prevents the spread of these plants onto the Preserve. This maintains the ecological health of the target habitat and benefits Lakeside ceanothus and felt-leaved monardella, two MSCP covered species documented in the project area.

## Smuggler's Gulch Transportable Floating Trash Booms

**Lead Agency:** Alta Terra, a project of Earth Island Institute

**Project Timeline:** January 2017 – January 2021

**Target Species or Habitat:** Riparian and stream habitat

**Management Action:** Habitat restoration

**County Preserve:** Tijuana River Valley Regional Park

The *Smuggler's Gulch Transportable Floating Trash Booms* project will remove garbage prior to entry into the Tijuana River to benefit stream and riparian habitat in Tijuana River Valley Regional Park over a four-year period. In 2017, Alta Terra, a project of Earth Island Institute, began planning the installation of a floating trash removal system. The first phase of this project included pre-construction activities including planning and design, which were completed in 2017-2019. The implementation phase of this project began in December 2019 with the construction and installation of the trash booms at the channel.

The trash removal system is comprised of three trash booms constructed of repurposed plastic. The booms were placed in the Smuggler's Gulch drainage channel to capture trash crossing the US-Mexico border. The trash booms remain deployed during the wet season and are regularly monitored and cleared with assistance from the Urban Corps, which partners with Live Well San Diego. The trash booms will be removed in 2020 and 2021 at the start of the dry season to facilitate regular channel maintenance but will be deployed at the start of the wet season in 2020. Alta Terra has recently obtained a new ROE permit to continue the implementation of this project into 2021. Through these habitat enhancement efforts, this project benefits to several MSCP covered species occurring in the Park, including coastal California gnatcatcher, least Bell's vireo, and northern harrier.

## Active Restoration and Enhancement of Dulzura Creek

**Lead Agency:** River Partners

**Project Timeline:** January 2018 – August 2020

**Target Species or Habitat:** Riparian

**Management Action:** Habitat restoration

**County Preserve:** Lawrence and Barbara Daley Preserve

The *Active Restoration and Enhancement of Dulzura Creek* project will restore and enhance riparian and stream habitat in Lawrence and Barbara Daley Preserve over a three-year period. In partnership with the County and the CNRA, River Partners began implementing habitat restoration measures along the Dulzura Creek within the Lawrence and Barbara Daley Preserve in 2018. Along the creek, 14 acres of riparian and upland habitat were restored, and 41 acres of habitat were enhanced. Active restoration included invasive, non-native plant control, installation of temporary irrigation, and planting of native plants. Enhancement included the mechanical removal of invasive, non-native plants. Active restoration and enhancement activities were completed in 2018, with River Partners regularly monitoring and maintaining the site for an additional two years to ensure successful establishment of native plants. Through this project, 2-acres of southern riparian woodland, 8-acres of southern willow scrub, and 4-acres of Diegan coastal sage scrub have been planted within the Preserve, as shown in the photograph below. Active restoration and enhancement of these habitats benefit several sensitive and MSCP covered species including Cooper's hawk and Palmer's goldenbush, which have both been documented within the project area.



**Native plants were installed as part of the *Active Restoration and Enhancement of Dulzura Creek* project in Lawrence and Barbara Daley Preserve.**

## Wildlife Release

**Lead Agency:** The Fund for Animals Wildlife Center

**Project Timeline:** July 2017 – July 2022

**Target Species or Habitat:** N/A

**County Preserve:** Otay Valley Regional Park

The *Wildlife Release* project enhances native wildlife populations across County parks and preserves. The Fund for Animals Wildlife Center obtained a ROE permit in 2017 to release rehabilitated wildlife back to their native habitat within multiple County parks and preserves. Rehabilitated animals include raccoons, coyotes, foxes, bats, and opossums. These species are already present in the local ecosystem and do not impede the conservation of MSCP covered species within County Preserves. In 2019, three grey foxes were released by the Fund for Animals Wildlife Center in the Otay Valley Regional Park.

## San Dieguito Watershed Invasive Non-native Plant Control Program

**Lead Agency:** Del Dios Habitat Protection League

**Project Timeline:** June 2019 – June 2022

**Target Species or Habitat:** coastal sage scrub and chaparral habitat

**Management Action:** Invasive, non-native plant control

## County Preserves: Del Dios Highlands Preserve and Santa Fe Valley Preserve

The *San Dieguito Watershed Invasive Non-native Plant Control Program* removes invasive, non-native plants from coastal sage scrub and chaparral habitat in Del Dios Highlands and Santa Fe Valley Preserves. As part of a larger watershed restoration project spearheaded by the San Dieguito River Park Joint Powers Authority (JPA), the Del Dios Habitat Protection League obtained a ROE permit in June 2019 to control invasive, non-native plants. Target plants for removal and treatment include eucalyptus, castor bean, pepper tree, date palms, tamarisk, mustard, and pampas grass (among other invasive grasses). All non-woody invasive, non-native plants are treated with an approved herbicide by a licensed applicator. Smaller trees are treated using the “drill and kill” method, whereby holes are drilled into the trunks and then filled with herbicide, which kills the tree but leaves it standing. Larger trees are cut down, removed from the preserve, and stumps are treated with herbicide to prevent regrowth. The goals of this project are to enhance and promote the growth of coastal sage scrub and chaparral plant communities which dominate these County Preserves and support MSCP covered species such as Belding’s orange-throated whiptail, Cooper’s hawk, and coastal California gnatcatcher.

## San Dieguito Watershed Invasive Non-native Plant Control Program

**Lead Agency:** San Dieguito River Valley Conservancy

**Project Timeline:** September 2019 – September 2020

**Target Species or Habitat:** Riparian habitat

**Management Action:** Invasive, non-native plant control

**County Preserve:** Lusardi Creek Preserve

The *San Dieguito Watershed Invasive Non-native Plant Control Program* removes invasive, non-native plants from riparian habitat in Lusardi Creek Preserve. As a partner of the San Dieguito River Park JPA, the San Dieguito River Valley Conservancy also obtained a ROE permit to implement a portion of this project within the Lusardi Creek Preserve. Approximately 3-acres of the creek have been targeted for this project due to an abundance of arundo within the watershed. The project began with the initial removal of arundo above ground biomass within the project area. All arundo canes are chipped onsite and follow best management practices to prevent the further spread of this invasive species. Following the initial biomass removal, re-sprouts are treated approximately once per month to maximize the efficacy of the treatments. This project will improve the ecological function of this important riparian habitat and the MSCP covered species least Bell’s vireo it supports.

## 6.5 Otay Ranch Preserve Management

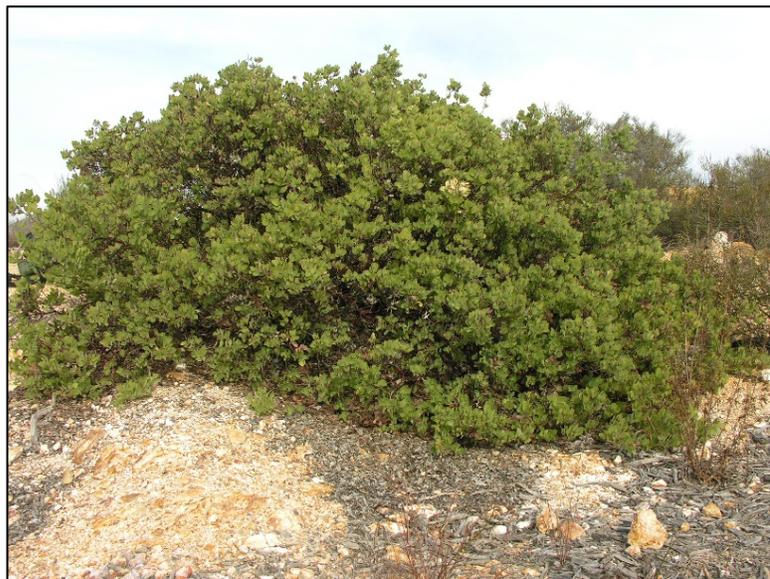
The County and City of Chula Vista jointly work as the Otay Ranch POM and are responsible for implementing the RMP management and monitoring strategies within the 3,958-acre Otay Ranch Preserve. The management and monitoring of the Otay Ranch Preserve is funded through the collection of assessments from Community Facility District 97-2 administered by the City of Chula Vista. Otay Ranch contract management occurred through June 2019. Due to contracting issues, management responsibilities were shifted to Preserve rangers. For 2020, a new work planning process will be initiated. City of Chula Vista and the County will meet at early in the year to review the annual work plan and ensure staffing and contracting instruments are in place to successfully implement MSCP management and monitoring. Regular coordination meetings will track progress. Habitat maintenance activities were performed to

control weeds and enhance habitat for sensitive species, including coastal cactus wren, Quino checkerspot butterfly, and vernal pools.

- **Invasive, non-native plant and animal control.** The primary weeds treated were short-pod mustard, filaree, and wild oats. Brown-headed cowbird trapping occurred in the riparian habitat at Northern Salt Creek, Salt Creek, and Wolf Canyon parcels. Brown-headed Cowbird mist netting and removal program was conducted at the Northern Salt Creek, Salt Creek, and Wolf Canyon parcels. The trapping was conducted as part of a program to reduce the rate of cowbird parasitism of nesting Least Bell's vireo. Brown-headed cowbirds are obligate brood parasites, and parasitized vireo nests typically fail to fledge any vireos. Numerous other species are subject to lowered reproductive rates due to cowbird parasitism, including coastal California gnatcatcher, yellow warbler, and yellow-breasted chat (Shuford and Gardali 2008), all of which breed in the Salt Creek Preserve. Three cowbirds, all females, were captured at the Preserve in 2019. This compares to eleven cowbird captures (including five females) during netting in 2018, and twenty cowbird captures (including only four females) during three months of continuous trapping in 2014. All three cowbirds captured were euthanized and will be accessioned into the collection of the San Diego Natural History Museum.
- **Access control.** Access management efforts included the installation of signage and fences to prevent illegal access and block unauthorized trails as well as coordinating with United States Border Patrol and adjacent land managers. Cut fencing along Minnewawa Truck trail and Salt Creek parcels were repaired.
- **Environmental education.** Four informational videos were completed. The purpose of the videos is to provide the public with information regarding monitoring and maintenance activities that occur within the Preserve. The videos discuss an overview of the Otay Ranch Preserve, rare plants, coastal cactus wrens, and climate change.

## 6.6 Private Mitigation Lands Management

Private RMPs are required as a condition of development entitlements when biological resources have been determined to be impacted by the proposed development project, and the acreage of required mitigation exceeds 50 acres, on- or off-site. RMPs may also be required when open space less than 50 acres is proposed if a particularly sensitive resource is present that would benefit from active management and/or monitoring. RMPs are approved by PDS and require submission of annual monitoring reports focusing



on the resource attributes of that specific site, detailing the monitoring and habitat management activities conducted within the previous year. Controlling and managing public access through fencing, signage and

patrolling is another component of the RMPs. Annual reports also document any issues and the overall health of the Preserve, which allows the County to assess the biological integrity of the open space habitats protected by each RMP. Annual reports are publicly available online through the PDS Document Library found on the PDS webpage.<sup>20</sup> **Appendix L** provides a general overview of the 17 Private Mitigation Land RMPs located within the MSCP Subarea Plan including a description of the habitat conservation area, required surveys, and monitoring/maintenance status for each RMP. In 2019, one RMP was added to the inventory (RMP 16-004 Otay Crossings Commerce Park). San Diego Habitat Conservancy commenced management of the Otay Crossings Commerce Park On-site Biological Open Space in January 2018.

RMP annual report due dates vary from project to project. An accounting of RMP annual report submissions revealed that, in 2019, 12 of the 17 (71%) RMPs submitted reports for the 2018-2019 reporting period. Management and monitoring on private mitigation lands is funded through property specific endowments established during the RMP approval process. The health of these endowments and use of these funds are reported in the RMP annual reports. The following section is a summary of the RMP annual reports received in 2019.

## Non-Compliant Private RMP Reporting

Five of the 17 (29%) RMPs did not submit annual reports for the 2018-2019 calendar year. These five non-compliant RMPs include RMP 98-001 Bernardo Lakes, RMP 02-001 McCrink, RMP 02-003 Maranatha Chapel, RMP 03-002 El Apajo, and RMP 06-005 Artesian Trail. The County continues to evaluate options to achieve compliance, including additional correspondence and meeting requests with responsible reporting entities and individuals, engaging the land management community for assistance, reliance on the easement and/or management agreement to remedy non-compliance, and, if necessary, involvement of the PDS Code Compliance division.

## 2019 Annual Report Private RMP Review

Twelve of the 17 (71%) Private RMPs submitted reports for the 2019 calendar year. Each report was reviewed by County Staff to evaluate compliance with the RMP document terms. Review letters were sent to all 12 responsible habitat managers and/or property owners that submitted reports. Review letters notified managers of the need, if any, to address specific management topics. Common areas for improvement in future reports include addressing financial status, monitoring results, and complying with the general provisions of the approved RMP. The Wildlife Agencies are routinely copied on correspondence from the County to the land managers regarding annual monitoring reports wherein greater detail of the report review results can be obtained. **Appendix L** provides further reporting status of each RMP. Annual Reports can be viewed by searching for the applicable Record ID (which are included on the correspondence letters and are listed in **Appendix L**) in the PDS Document Library.

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<sup>20</sup> <https://www.sandiegocounty.gov/content/sdc/pds/doclibrary.html>.

## 6.7 Education and Outreach



**The Discovery Program allows educators and elementary school students to explore nature in their own backyard at El Monte Park. (Photo credit: Charles Gailband)**

One of DPR's key missions is educating the public about the County's natural biological and cultural resources. Rangers and volunteers are trained to lead environmental education programs and provide multiple interpretive services to the public. Presentations are available to people of all ages at schools, parks, campgrounds, interpretive centers, camps, scout groups, and churches.

County Park Rangers led a wide variety of educational programs for over 3,000 park visitors in 2019. Some of these education programs included Geology Science Night, “It’s How We Live” Fair, School Visits, Moon Rise Hikes, a “Go Play Get Fit” special event, Ranger-led Hikes, Display Animal Interpretation, Nature Explorers Program, and our award winning Discovery Program, which is offered at eight County parks. Highlights for 2019 include the following.

- Nature Explorers Program** is a five-year plan for increasing local awareness of resources and recreational opportunities through strategic intervention. Program curriculum is designed to inform and inspire San Diegans through awareness of environmental issues. Program excursions leverage County-owned areas and community partners, such as local representatives from the BLM, to provide participants access to green space through safe and responsible recreation. The first stage, Junior Explorers, positions the County in partnership with local schools to increase environmental sensitivity by connecting school age children with their neighborhood parks. Next is the Nature Explorers group which includes comprehensive pre and post trip evaluation of on-site learning to increase environmental literacy among teen participants. As teens continue to engage with the program, the program provides opportunities for participants to progress into leadership roles that exemplify stewardship among their peers.

The Nature Explorers program provided a total of 82 outdoor excursions in the year 2019 to a total of 175 participants ages 10-17. Programming included a total of 21 daytrips, such as local hikes, and 61 overnights to County (William Heise Park, Dos Picos Park, Oakoasis Preserve, and Louis A. Stelzer Park) and National Parks (Joshua Tree National Park).

DPR also partnered with local non-profit Earth Discovery Institute to get an insider look at the San Diego Bay National Wildlife Refuge, San Diego National Wildlife Refuge Interpretive Loop and the Crestridge Ecological Reserve. Representatives from the BLM and USFWS along with Earth Discovery Institute staff helped facilitate environmental education programs and service-learning projects on site for Nature Explorers Program participants.

The Nature Explorers Program successfully matriculated 16 teen participants to the Nature Mentors tier, where individuals participated in leadership trainings and peer leadership roles on various trips. Most notably, for their work, DPR was re-awarded Habitat Conservation Funding for an additional five years in October of 2019 to extend programming through the year 2024.

- **Discovery Program** assists hundreds of educators and elementary school students to explore the wealth of nature at local parks and in their own backyards, a no cost to the participants. The curriculum correlates with Next Generation Science Standards and includes the subjects of plants and photosynthesis, astronomy, birds, Native Americans, geology, insects, and general ecology. The hands-on courses include a pre-field trip County Ranger visit to the school, activities for classroom use, a field trip and County Ranger led hikes, and post-field trip activities for classroom and home use. The program is found in eight parks throughout the County, including Guajome Regional Park, Felicita County Park, San Dieguito County Park, Los Peñasquitos Canyon County Preserve, Louis A. Stelzer County Park, El Monte County Park, Flinn Springs County Park, and Otay Lakes County Park. Five of these County properties are located within the MSCP Subarea Plan boundary. Approximately 45 schools visited their local parks through this program in 2019.
- **Santa Ysabel Nature Center** is a 6,000 square foot building sustainably designed to connect people to the outdoors and promote the County's Live Well goals. The Nature Center building includes interpretive and educational exhibits, a conference room capable of accommodating events up to 100 people, an outdoor patio, an information area, and a nature play area to encourage children to use their imaginations as they play and explore the outdoors. It is located adjacent to Highways 78 and 79 in Santa Ysabel. It opened in 2019.
- **TRACK Trails Program** helps children explore the beauty of nature as part of the national Kids in Parks campaign. It features kiosks at trailheads with brochures detailing fun and adventurous aspects of the hikes offered. Children earn prizes by visiting the TRACK Trails website and tracking their adventures in their on-line nature journals.
- **Animal ambassadors** met with over 3,400 park visitors in 2019 through various programs conducted by County Park Rangers. Even more programs are planned in 2020 at our Discovery Program parks.
- **Online Naturalist Program** is under development. This online education platform will be free to the public and cover a range of topics that focus on the natural biological and cultural resources in our region. This program will also be based on the Next Generation Science Standards.

Additional education and outreach activities include the following.

- Display center interpretation

- Wildlife conservation programs with live animals
- Animal touch tables
- Environmental presentations at County Preserves
- Daily interpretation at County Preserves' nature centers, museums, and at kiosks
- MSCP and environmental presentations to community groups and service boards
- County Ranger-led nature talks, slide shows, walks, and hikes
- Community service projects which include on-going tree care and watering
- Stormwater and watershed education
- Family campouts
- Leave No Trace Program

## CHAPTER 7

### Preserve Monitoring and Research

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**Least Bell's vireos nest in riparian areas. (Photo Credit: Devin Taylor)**

MSCP monitoring on County Preserves including TMP monitoring, baseline inventory surveys, research partnerships, and private mitigation lands monitoring occurred in 2019. These efforts monitored or documented 41 MSCP covered species and habitats in County Preserves and private mitigation lands (Table 14). Preserve monitoring within the MSCP Subarea Plan Area assesses the success of the MSCP Subarea Plan. In conformance with IA Section 14.5, *Biological Monitoring*, the County is responsible for monitoring the land it owns or acquires as well as ensuring that other private mitigation lands dedicated to the County within the MSCP Preserve are monitored consistent with the MSCP Subarea Plan. This chapter summarizes the monitoring activities in County Preserves and private mitigation areas.

**TABLE 14. MSCP COVERED SPECIES OR HABITATS MONITORED OR DOCUMENTED IN REPORTING YEAR BY PROGRAM**

Species and Habitats	Monitoring Program				
	TMP	ROE	Otay	Private Mitigation	Inventory Surveys <sup>a</sup>
<b>TMP Species</b>					
1. San Diego thornmint	✓	✓			
2. Encinitas baccharis	✓				
3. San Miguel savory	✓				
4. Variegated dudleya	✓			✓	✓
5. Willowy monardella	✓				✓
6. Tricolored blackbird	✓			✓	
7. Golden eagle	✓	✓		✓	
8. Burrowing owl	✓			✓	
9. Coastal (San Diego) cactus wren	✓	✓			
10. Bald eagle	✓				
11. Arroyo toad	✓				
12. Vernal pool/alkali playa	✓				
<b>Non-TMP Species</b>					
13. San Diego ambrosia				✓	
14. Del Mar manzanita				✓	
15. Orcutt's brodiaea		✓		✓	
16. Orcutt's bird's beak		✓			
17. Otay tarplant		✓			
18. Wart-stemmed ceanothus	✓ <sup>b</sup>			✓	
19. Snake cholla	✓ <sup>b</sup>			✓	
20. San Diego button celery				✓	
21. San Diego barrel cactus	✓ <sup>b</sup>			✓	✓
22. San Diego mesa mint				✓	
23. San Diego goldenstar					✓
24. Sticky dudleya				✓	
25. Blainville's horned lizard		✓			
26. Belding's orange-throated whiptail				✓	✓
27. Cooper's hawk	✓ <sup>b</sup>			✓	✓
28. Canada goose	✓ <sup>b</sup>				

**TABLE 14. MSCP COVERED SPECIES OR HABITATS MONITORED OR DOCUMENTED IN REPORTING YEAR BY PROGRAM**

Species and Habitats	Monitoring Program				
	TMP	ROE	Otay	Private Mitigation	Inventory Surveys <sup>a</sup>
29. Southern California rufous-crowned sparrow	✓ <sup>b</sup>			✓	✓
30. Ferruginous hawk	✓ <sup>b</sup>			✓	
31. Northern harrier	✓ <sup>b</sup>			✓	
32. Southwestern willow flycatcher		✓			
33. American peregrine falcon	✓ <sup>b</sup>			✓	
34. Long-billed curlew	✓ <sup>b</sup>				
35. White-faced ibis	✓ <sup>b</sup>				
36. California gnatcatcher	✓ <sup>b</sup>	✓		✓	✓
37. Western bluebird	✓ <sup>b</sup>			✓	
38. California gnatcatcher	✓ <sup>b</sup>	✓		✓	
39. least Bell's vireo		✓		✓	
40. Southern mule deer	✓ <sup>b</sup>			✓	✓
41. American badger		✓			

**NOTES:**

<sup>a</sup> Inventory surveys were conducted at Dictionary Hill Preserve, Sycamore Canyon and Goodan Ranch Preserve southern parcel, and San Vicente Connection.

<sup>b</sup> These species were incidental observations during TMP monitoring surveys

**SOURCES:**

Environmental Science Associates. 2019a. *Baseline Biodiversity Report for the Dictionary Hill Preserve County of San Diego Department of Parks and Recreation*. Draft. Prepared for Department of Parks and Recreation County of San Diego. October.

Helix Environmental Planning. 2020. *Sycamore Canyon/Goodan Ranch Preserve Southern Parcel Addition Baseline Biodiversity Survey Report*. Draft. Prepared for Department of Parks and Recreation County of San Diego. January.

ICF. 2020. *Baseline Biodiversity Survey Report for Sycamore Canyon/Goodan Ranch County Preserve Additional Properties*. Draft. Prepared for Department of Parks and Recreation County of San Diego. January.

## 7.1 Preserve Biological Monitoring of County Lands

MSCP monitoring on County Preserves includes baseline inventory surveys, TMP monitoring, and other resource-specific monitoring. In the reporting year, baseline inventory surveys were conducted on three properties and TMP monitoring was conducted for 11 MSCP-covered species and habitats across six County Preserves. Annual residual dry matter monitoring was conducted on Ramona Grasslands Preserve.

Baseline inventory surveys identify and map existing biological resources within a property. They are used to develop or update RMPs. They inform management directives for individual areas and provide baseline status of MSCP covered species for future monitoring.

The TMP consists of a combination of surveillance-type monitoring (e.g., ongoing assessments of threats and habitat condition, and presence/absence surveys to confirm presence of certain species); baseline condition assessments to determine population-specific threats and conditions; and monitoring to assess the response of a particular species to specific management treatments. Rare plant monitoring follows the most current Management Strategic Plan Rare Plant Monitoring Protocol prepared by the SDMMMP, and additional monitoring protocols stated in the TMP. Habitats and species included in the TMP are listed in **Table 15**. Monitoring frequency is provided in **Table 16**.

The TMP goal to collect high-quality data to inform trends in occurrences and populations, evaluate the current habitat conditions, assess threats, and provide adaptive management recommendations to ensure that the conservation goals of the MSCP are being met. The TMP prioritizes preserve level monitoring to allocate funding where it is most needed. It includes focused management and monitoring goals and objectives for target resources and detailed monitoring protocols (Environmental Science Associates and ICF 2015). The County utilizes the TMP to implement the biological goals and objectives discussed in MSCP Subarea Plan Section 6.4.1 and Section 14.5.

The TMP was updated in 2019 to incorporate 10 new preserves (5 MSCP Subarea Plan Preserves and 5 draft North County MSCP Preserves). The County updated the TMP to include seven additional species. The five preserves/parks in the MSCP Subarea Plan area are Barnett Ranch, Furby-North, Tijuana River Valley Regional Park, Lawrence and Barbara Daley, and Stoneridge.<sup>21</sup> With the addition of these five properties, all County Preserves with RMPs are currently included in the TMP. Also, in 2019 the TMP monitoring results from 2015 – 2019 were reviewed to determine lessons learned and further refine priorities, goals, objectives, and monitoring methods. The revisions proposed will be integrated into the TMP in 2020. The Wildlife Agencies will be included in the review process of the updated TMP. The updated TMP is planned to be finalized in early 2020.

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<sup>21</sup> Hellhole Canyon, Mt. Olympus, Santa Margarita, Simon, and Wilderness Gardens are also included in the TMP update. These Preserves are located in the draft North County Plan.

TABLE 15. TARGETED MONITORING PLAN SPECIES AND HABITATS BY LOCATION

Common Name <sup>a</sup>										
	Boulder Oaks	Lakeside Linkage	El Capitan	El Monte	Stelzer	Oakosis	Sycamore Canyon and Goodan Ranch	Ramona Grasslands <sup>b</sup>	Del Dios Highlands <sup>b</sup>	Lusardi Creek
San Diego thornmint			✓				✓			
Encinitas Baccharis									✓	
Lakeside ceanothus	✓		✓		✓	✓				
Variegated dudleya							✓			✓
Willowy monardella							✓			
Spreading (Prostrate) navarretia								✓		
San Miguel savory	✓									
San Diego fairy shrimp								✓		
Arroyo toad								✓		
Tricolored blackbird <sup>b</sup>										
Golden eagle			✓					✓	✓	
Burrowing owl								✓		
Coastal (San Diego) Cactus wren		✓								
Bald Eagle								✓		
Vernal Pool / Alkali Playa Habitat	✓							✓		

## NOTES:

<sup>a</sup> Stephens' Kangaroo Rat (*Dipodomys stephensi*) is monitored as part of the TMP. It is excluded here because it is not a covered species under the MSCP Subarea Plan.

<sup>b</sup> Portions of the Ramona Grasslands and Del Dios Highlands Preserves are located within the draft North County MSCP—only survey results from the MSCP Subarea Plan are included in this report.

## SOURCES:

Environmental Science Associates and ICF. 2015. *Comprehensive Monitoring Plan*. Prepared for Department of Parks and Recreation County of San Diego. July.

Environmental Science Associates and ICF. 2019. *Targeted Monitoring Plan*. Prepared for Department of Parks and Recreation County of San Diego. July.

TABLE 16. TARGETED MONITORING PLAN SPECIES AND HABITATS MONITORING FREQUENCY<sup>a</sup>

Species or Habitat	Monitoring Frequency <sup>b</sup>	Monitored in Reporting Year
San Diego thornmint	Population quantified and threats assessed annually for 5 years	Yes
Encinitas baccharis	Population quantified and threats assessed every 2 years	Yes
Lakeside ceanothus	Photo-documentation and threats assessed every 5 years	No
Variegated dudleya	Population quantified and threats assessed annually	Yes
Willow monardella	Population quantified and threats assessed annually for 5 years	Yes
San Miguel savory	Population quantified and threats assessed annually for 5 years	Yes
Arroyo toad	Population and habitat quantified, and threats assessed annually for 5 years	Yes
	RDM monitoring annually	Yes
Tricolored blackbird	Presence/absence surveys and habitat and threats assessment annually for 5 years	Yes
Golden eagle	Foraging study monthly for 3 years	Yes
Burrowing owl	Presence/absence surveys and habitat and threats assessment annually	Yes
	RDM monitoring annually	Yes
Coastal (San Diego) cactus wren	Avian point counts monthly during breeding season, annually for 10 years	Yes
	Qualitative habitat and threat assessment and photo monitoring monthly during breeding season, annually for 5 years	Yes
Bald eagle	Foraging study monthly for 3 years	Yes
Vernal pool / alkali playa habitat	Quantitative vegetation and wet season fairy shrimp monitoring every 3-5 years	No
	Qualitative monitoring early and late season, annually for 5 years	Yes
	RDM monitoring annually	Yes
	Dry season fairy shrimp monitoring every 10 years	No
	Spreading (Prostrate) navarretia ( <i>Navarretia fossalis</i> ) monitored as part of qualitative monitoring	Yes
	San Diego fairy shrimp ( <i>Branchinecta sandiegonensis</i> ) monitored as part of qualitative monitoring	Yes

## NOTES:

<sup>a</sup> Stephens' Kangaroo Rat (*Dipodomys stephensi*) is monitored as part of the TMP. It is excluded here because it is not a covered species under the MSCP Subarea Plan.

<sup>b</sup> Indicated monitoring frequency is after the baseline is established for the species or habitat.

## SOURCE:

Environmental Science Associates and ICF. 2015. *Comprehensive Monitoring Plan*. Prepared for Department of Parks and Recreation County of San Diego. July.

## Baseline Inventory surveys

Baseline biological resources surveys were performed for three properties, Dictionary Hill Preserve, Sycamore Canyon and Goodan Ranch Preserve southern parcel, and San Vicente Connection, in 2019. The southern parcel and San Vicente Connection are both part of Sycamore Canyon and Goodan Ranch Preserve.

Dictionary Hill Preserve, 179-acres, was acquired in 2017. It consists primarily of Diegan coastal sage scrub, disturbed habitat, and non-native grassland. The majority of the habitat is considered moderate to high quality, although some areas are considered low quality and have been impacted by human activities (e.g., unauthorized trails). The following biological inventory surveys were conducted in spring 2018, then spring 2019 through fall 2019: vegetation community mapping; rare plant surveys; invasive plant mapping; butterfly surveys; herpetological drift fence surveys; diurnal and nocturnal avian surveys; small mammal trapping; passive and active acoustical bat surveys; and medium and large mammal remote camera surveys (ESA 2019a). MSCP covered species detected during surveys were variegated dudleya, San Diego barrel cactus, San Diego goldenstar, Belding's orange-throated whiptail, Cooper's hawk, southern California rufous-crowned sparrow, and California gnatcatcher (**Table 14**).

Sycamore Canyon and Goodan Ranch Preserve southern parcel, 20 acres, was acquired in 2013. It consists primarily of coast live oak woodlands, chamise chaparral, southern mixed chaparral, and Diegan coastal sage scrub. The following biological inventory surveys were conducted between January and June 2019: habitat/vegetation mapping, rare plant surveys, invasive non-native plant species mapping, butterfly surveys, herpetological drift fence with box funnel trap surveys, diurnal and nocturnal avian point count surveys, acoustical bat surveys, small mammal trapping, and passive medium and large mammal camera surveys (Helix 2020). MSCP covered species detected during surveys were willow monardella, Belding's orange-throated whiptail, southern California rufous-crowned sparrow, and southern mule deer (**Table 14**).

The San Vicente Connection contains five properties totaling 214 acres acquired between 2003 and 2018. It consists primarily of coastal sage scrub, Diegan coastal sage scrub, chamise chaparral, coastal sage-chaparral transition, and riparian and oak woodlands. The following biological inventory surveys were conducted in 2019: vegetation surveys with habitat community, rare plant, and invasive non-native plant species mapping components; butterfly surveys and habitat assessments; herpetofauna surveys, including box traps and nocturnal pedestrian surveys; ornithological surveys, including diurnal and nocturnal surveys; and mammal surveys, including small mammal trapping, camera stations for medium to large mammals, and active and passive bat surveys (ICF 2020). MSCP covered species detected during surveys were San Diego goldenstar, southern California rufous-crowned sparrow, California gnatcatcher, and southern mule deer (**Table 14**).

## Targeted Monitoring Plan

Ten MSCP covered species and one habitat were monitored across six County Preserves as part of the TMP in the reporting year (**Table 17**). Ten of the 13 MSCP covered species were observed during surveys. Three of six plant populations increased. Monitoring followed the methods and key considerations as outlined in the TMP (Environmental Science Associates and ICF 2015) for each species

and habitat type. An additional 14 MSCP covered species were incidentally observed during TMP monitoring (**Table 18**).

The TMP includes management objectives for target species and habitats. For example, for all TMP MSCP covered plant species, management objectives include maintaining invasive, non-native plant cover to less than 20% cover (Environmental Science Associates and ICF 2015). Monitoring completed in the reporting year includes an assessment of management needs for the following year. These are summarized for each species in the following sections and communicated to maintenance staff in annual work plans. Implementation of management actions is documented in Chapter 6, *Preserve Management*.

**TABLE 17. TARGETED MONITORING PLAN SPECIES MONITORED IN REPORTING YEAR: YEAR-TO-YEAR COMPARISON**

Species	Location/Measurements	2015	2016	2017	2018	2019
San Diego thornmint	<u>Sycamore Canyon and Goodan Ranch</u> Population estimate, individuals		20,000-30,000	777,300	5,525	27,200
Encinitas baccharis	<u>Del Dios Highlands</u> Population estimate, individuals	250		344		350
San Miguel savory	<u>Boulder Oaks</u> Population estimate, individuals		184	145	145	99
Variegated dudleya	<u>Lusardi Creek</u> Population estimate, individuals		199	199	199	33
	<u>Sycamore Canyon and Goodan Ranch</u> Population Estimate, individuals		11	60		30
Willow monardella	<u>Sycamore Canyon and Goodan Ranch</u> Population estimate, individuals	441	238	284	283	364
Golden eagle	<u>Ramona Grasslands</u> Species Observed	yes	yes			yes
	Off-site Species Nesting	no	yes			yes
Tricolored blackbird	<u>Ramona Grasslands</u> Species Observed			yes	yes	yes
	Species Nesting			no	no	no
Burrowing owl	<u>Ramona Grasslands</u> Species Observed		yes <sup>c</sup>		no	no
	Species Nesting		no		no	no
Coastal (San Diego) cactus wren	<u>Lakeside Linkage</u> Species Observed				yes	yes
	Species Nesting				no	yes
Bald eagle	<u>Ramona Grasslands</u> Species Observed	yes	yes			yes
	Species Nesting	yes	yes <sup>d</sup>			yes <sup>d</sup>
Arroyo toad	<u>Ramona Grasslands</u> # of occupied reaches		9	9	6	7
Vernal pool/alkali playa	<u>Ramona Grasslands</u> # of pools supporting at least one USACE indicator species		15		11	17
	# of pools supporting spreading (prostrate) navarretia		0		0	0
	# of pools supporting San Diego fairy shrimp		14		0	7

NOTES:

<sup>a</sup> Stephan's Kangaroo Rat (*Dipodomys stephensi*) is monitored as part of the Target Monitoring Plan. It is excluded here because it is not a covered species under the MSCP Subarea Plan.

<sup>c</sup> One burrowing owl was reported by DPR staff. None were observed during surveys.

<sup>d</sup> Bald eagle nest territory is located on Ramona Grasslands Preserve. Successful nesting was documented 2014-2016. Nesting was documented but not successful in 2019. This was attributed to the lack of sexual maturity by the new subadult female.

**SOURCES:**

ICF International. 2017. *CMP Resource-Specific Monitoring 2016 Annual Report*. November. Prepared for: County of San Diego Department of Parks and Recreation.

ICF International. 2018. *CMP Resource-Specific Monitoring 2017 Annual Report*. January. Prepared for: County of San Diego Department of Parks and Recreation.

ICF. 2018. *Targeted Monitoring Plan Resource-Specific Monitoring 2018 Annual Report*. October. Prepared for: County of San Diego Department of Parks and Recreation.

Environmental Science Associates. 2019. *Targeted Monitoring Plan Resource-Specific Monitoring 2019 Annual Report*. Prepared for Department of Parks and Recreation County of San Diego. September.

Environmental Science Associates. 2019. *Ramona Grasslands Preserve 2018-19 Raptor Surveys Summary Report for the County of San Diego Department of Parks and Recreation*. Prepared for Department of Parks and Recreation San Diego County. December.

Environmental Science Associates. 2019. *Targeting Monitoring Plan – Preserve Group 1 Monitoring Results and Recommendations*. Memorandum to Jennifer Price, County of San Diego Department of Parks and Recreation. December.

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**TABLE 18. INCIDENTAL OBSERVATIONS OF OTHER MSCP COVERED SPECIES DURING TMP SURVEYS IN REPORTING YEAR**

Species	Boulder Oaks	Del Dios Highlands	Lakeside Linkage	Lusardi Creek	Ramona Grasslands	Sycamore Canyon and Goodan Ranch
1. Wart-stemmed ceanothus		✓				
2. San Diego barrel cactus				✓		
3. Snake cholla			✓			
4. Cooper's hawk						✓
5. Canada goose					✓	
6. Ferruginous hawk					✓	
7. Northern harrier					✓	
8. Peregrine falcon					✓	
9. Long-billed curlew					✓	
10. White-faced ibis					✓	
11. Western bluebird			✓		✓	
12. California gnatcatcher			✓		✓	
13. Southern California rufous-crowned sparrow			✓			
14. Southern mule deer					✓	

**SOURCE:**

Environmental Science Associates. 2019. *Targeted Monitoring Plan Resource-Specific Monitoring 2019 Annual Report*. Prepared for Department of Parks and Recreation County of San Diego. September.

Environmental Science Associates. 2019. *Ramona Grasslands Preserve 2018-19 Raptor Surveys Summary Report for the County of San Diego Department of Parks and Recreation*. Prepared for Department of Parks and Recreation San Diego County. December.

## San Diego Thornmint

**Monitoring Location:** Sycamore Canyon and Goodan Ranch Preserve

**Plot Establishment Dates:** April 22, May 4–5, 2016 (10 plots); and May 4, 2017 (added 1 plot)

**Reporting Year Monitoring Dates:** May 3, 14, 15, 18, 24

**Number of Permanent Monitoring Plots:** 11

**Reporting Year Population Estimate:** 27,200 plants

The San Diego thornmint population estimate was 27,200 individuals at Sycamore Canyon and Goodan Ranch in 2019. Additional special-status plant species, such as small-flowered bindweed (*Convolvulus simulans*), Palmer's grappling hook (*Harpagonella palmeri*), and variegated dudleya, were also observed

within seven of the monitoring plots. Across all 11 monitoring plots, San Diego thornmint habitat contained invasive, non-native plants, particularly purple false brome (*Brachypodium distachyon*) and tocalote (*Centaurea melitensis*). The annual population fluctuates based on rainfall. High rainfall years result in a smaller population size due to increased competition from invasive, non-native plants (Preston 2019). Population estimates range between a low of 5,525 in 2018 to a high of 777,300 individuals in 2017 ([ESA 2019e] **Table 17**).

Monitoring results indicate the importance of invasive, non-native plant control for this species. Three of the 11 plots would benefit from invasive, non-native plant control (ESA 2019d). The TMP recommends overall invasive, non-native plant cover be kept to less than 20% and cover of purple false brome be kept to less than 10% cover (Environmental Science Associates and ICF 2015). Non-native plant cover of plots 4, 5, and 8 were recorded at 21.9%, 20.6%, and 17.6%, respectively. Except for plot 11 (at 11% non-native plant cover), all of the other plots were under 10% total non-native plant cover. In addition, plots 4, 5, and 8 also had lower than average (23.5%) native species cover at 15.1%, 17.5%, and 14.0% native cover, respectively. Purple false brome comprised the majority of the non-native plant cover across plots 4, 5, and 8, as well as all other plots (with cover at 15%, 15%, and 12%, respectively). It should be noted that purple false brome at plot 11 totaled 10%. The second most prevalent non-native plant species was tocalote. The invasive, non-native plant removal protocol within the TMP, which includes hand-clipping, hand-pulling, and herbicide use, should be followed (ESA 2019d). A Weed Management Plan addressing treatment of invasive non-native plants adjacent to the San Diego thornmint monitoring plots was prepared in 2018. The Weed Management Plan will be implemented to address treatment of invasive, non-native plants associated with the San Diego thornmint monitoring plots.



**San Diego Thornmint is a Targeted Monitoring Plan species found in Sycamore Canyon and Goodan Ranch Preserve.**

### **Encintas Baccharis**

**Monitoring Location:** Del Dios Highlands Preserve

**Plot Establishment Dates:** July 24 and 30, 2015

**Reporting Year Monitoring Dates:** August 22

**Number of Permanent Monitoring Plots:** 3

**Reporting Year Population Estimate:** 350 plants

The Encinitas baccharis population estimate was 350 individuals at Del Dios Highlands in 2019. One additional special-status plant species, wart-stemmed ceanothus (*Ceanothus verrucosus*), was also observed within all three of the monitoring plots. Only one monitoring plot contained non-native grasses and herbs, including foxtail brome, tocalote, and shortpod mustard (ESA 2019d). The population appears to be relatively stable and is exhibiting natural recruitment. Population estimates range between a 250 to 520 individuals from 2015 to 2019 (**Table 17**).

Monitoring results indicate erosion control is necessary and the effects of a new pest should be monitored. Erosion control is necessary at one plot where large rills were noted. There is a water pipe that runs

beneath a dirt access road and expels at the top of this plot. It has created a large gully. The erosion in this area will be addressed in 2020 to reduce the threat to nearby Encinitas baccharis individuals.

Mediterranean red bugs (*Scantius aegyptius*) were mating or present on roughly 10 to 20% of all Encinitas baccharis individuals observed. It has not been determined if this non-native species is causing harm to the plants. Damage was not noted, but this will be monitored to determine if management actions need to be taken. No invasive, non-native plant treatment is recommended at this time (ESA 2019d).

## San Miguel Savory

**Monitoring Location:** Boulder Oaks Preserve

**Plot Establishment Dates:** April 6 and 16, 2016

**Reporting Year Monitoring Dates:** April 10 and June 14

**Number of Permanent Monitoring Plots:** 2

**Reporting Year Population Estimate:** 99 plants

The San Miguel savory population estimate was 99 individuals at Boulder Oaks Preserve in 2019. One additional special-status plant, southern mountain misery (*Chamaebatia australis*), was also observed. A two-striped garter snake was also observed on the trail. Across both monitoring plots, San Miguel savory habitat contained invasive grasses, particularly perennial veldtgrass (*Ehrharta calycina* [ESA 2019d]). This species typically occurs in low numbers in the county and the microhabitat requirements restrict sub-population sizes are unclear (Reiser 2001). Population estimates range between a 184 to 99 individuals from 2016 to 2019 (**Table 17**).

Monitoring results did not recommend active management in 2020. Invasive, non-native plant cover is limited and does not require treatment at this time. It less than 1% cover on average between the two plots. Although non-native plant cover is currently very low, the area should continue to be monitored for invasive, non-native plants that could threaten this population of San Miguel savory. In addition, because vegetation within the San Miguel savory occurrences is very thick and on steep slopes, care should be taken when performing monitoring to not trample the San Miguel savory plants, and to avoid other native plants to the extent possible (ESA 2019d).

## Variegated Dudleya

**Monitoring Location:** Lusardi Creek Preserve

**Plot Establishment Dates:** April 27, 2016

**Reporting Year Monitoring Dates:** May 4

**Number of Permanent Monitoring Plots:** 1

**Reporting Year Population Estimate:** 33 plants

The variegated dudleya population estimate was 33 individuals at Lusardi Creek in 2019<sup>22</sup>. An additional MSCP plant species, San Diego barrel cactus (*Ferocactus viridescens*), was observed within the monitoring plot. Within the monitoring plot, variegated dudleya habitat contained invasive grasses, particularly purple false brome and foxtail brome. The sharp decline in the number of individuals is attributed to herbivory and the timing of surveys. Signs of herbivory were observed and presumed to be

<sup>22</sup> The species was observed but not monitored at Sycamore Canyon and Goodan Ranch Preserve during the San Diego thornmint monitoring.

damage caused by snails. Rabbit herbivory was also noted. The surveys are timed during the flowering period when vegetative and non-flowering individuals would not be visible (ESA 2019d). Population estimates range between a 199 to 33 individuals from 2016 to 2019 (**Table 17**). Snail damage was noted during 2019 monitoring efforts and organic, wildlife-safe snail bait was applied around the perimeters of the variegated dudleya plants (ESA 2019d).

Monitoring results indicate invasive, non-native plant and animal treatments and access control are necessary to enhance the variegated dudleya population. Active invasive, non-native plant treatments should continue to ensure the persistence of this population. There were signs that a vehicle had driven on the top of the ridge directly adjacent to the variegated dudleya occurrence. In 2019, DPR staff checked this area and installed signage to prevent trespassing.

**Monitoring Location:** Sycamore Canyon and Goodan Ranch  
**Plot Establishment Dates:** see San Diego thornmint  
**Reporting Year Monitoring Dates:** see San Diego thornmint  
**Number of Permanent Monitoring Plots:** N/A  
**Reporting Year Population Estimate:** 30 individuals

Variegated dudleya plants, 30 healthy individuals, were documented during San Diego thornmint surveys. The occurrence is located within one of the San Diego thornmint plots. Variegated dudleya plants were counted during surveys for San Diego thornmint (ESA 2019d). The population is highly variable with estimates ranging from a low of 11 in 2016 to a high of 60 in 2017 (**Table 17**).

Monitoring results indicate invasive, non-native plant control is necessary to enhance the population of variegated dudleya. Control of purple false brome would benefit the species (ESA 2019e). A Weed Management Plan addressing treatment of invasive, non-native plants adjacent to the San Diego thornmint monitoring plots was prepared in 2018. The Weed Management Plan will be implemented to address treatment of invasive, non-native plants associated with the San Diego thornmint monitoring plots.

## Willowy Monardella

**Monitoring Location:** Sycamore Canyon and Goodan Ranch  
**Plot Establishment Dates:** July 7, 2015 and June 22, 2016  
**Reporting Year Monitoring Dates:** June 28  
**Number of Permanent Monitoring Plots:** 2  
**Reporting Year Population Estimate:** 364

The willow monardella population estimate was 364 individuals at Sycamore Canyon and Goodan Ranch in 2019. No additional special-status plant species were observed within the two monitoring plots. Across both monitoring plots, willowy monardella habitat contained invasive, non-native plants, particularly brome grasses, shortpod mustard, and yellow star thistle (*Centaurea solstitialis* [ESA 2019d]). Population variability may be attributed to how surveyors count clumps of plants rather than annual fluctuations in population size (ESA 2019e). The population estimates range from a low of 238 in 2016 to a high of 441 in 2017 (**Table 17**).

## Arroyo Toad

**Monitoring Location:** Ramona Grasslands Preserve

**Stream Reaches:** United States Geological Survey (USGS)-established monitoring reaches along Santa Maria Creek

**Assessment:** Visual surveys for life stages and threat and habitat assessment

**Reporting Year Monitoring Dates:** May 14 and 15

In 2019, seven of the 23 monitoring reaches were recorded as occupied during surveys within Santa Maria Creek. Arroyo toad observations within these reaches consisted of 28 clutches of tadpoles, with an additional four clutches of juvenile toadlets. Tadpole clutch sizes were estimated between 5 and 500 individuals. Toadlet clutches ranged in size from an estimated 5 to 10 individuals. Arroyo toad observations were generally confined to the northern on-site reaches of Santa Maria Creek, with a single occurrence within the southern reaches of Santa Maria Creek (ESA 2019d). Occupied reaches vary from a low of 6 in 2018 and highs of 9 in 2016 and 2017 (**Table 17**).

The southern (upstream) portion of Santa Maria Creek is characterized by moderate- to low quality habitat for arroyo toad. Arroyo toad was generally absent from this area, except for one location with one clutch of tadpoles. While the channel supports areas with suitable breeding and calling margins, this area is generally characterized by denser vegetation adjacent to and overhanging the channel. The vegetation generally consists of species typical to riparian and wetland habitats, including coast live oak (*Quercus agrifolia*), mule fat (*Baccharis salicifolia*), tule (*Schoenoplectus* sp.), saltgrass (*Distichlis spicata*), and willows (*Salix* spp.). Water levels within the southern portion of the creek varied throughout, and included areas of low flow as well as a large, deep pond. Additionally, a portion of the creek had completely dried south of Highland Valley Road.

The northern (downstream) portion of Santa Maria Creek provides abundant high-quality habitat for all life stages on arroyo toad. The creek channel varies from a single channel to braided channels with suitable gravelly/sandy substrate and margins for calling and breeding. The channel generally lacks vegetation, except for sparsely scattered tamarisk. Northward, Santa Maria Creek enters a rocky gorge and the channel becomes intersected by large boulders, creating micro-topography comprising varying sized pools underlain by sandy and gravelly substrate. Arroyo toad tadpoles were present in the pools at lower densities (e.g., clutch sizes estimated between 10 and 25 tadpoles). The northernmost areas of the creek could not be accessed due to topographic constraints; however, it is presumed that the high-quality habitat continues down-stream and likely supports arroyo toad (ESA 2019d).

One invasive, non-native plant, salt-cedar (*Tamarix ramossisima*), occurred at low densities throughout Santa Maria Creek. Additionally, giant reed (*Arundo donax*), also a Cal-IPC High species, was mapped in 2018 in an inaccessible portion of the creek and is assumed to be present in the northern on-site reaches of Santa Maria Creek. Two exotic predators were also noted during surveys: red-swamp crayfish (*Procambarus clarkii*) and bullfrog. A total of five crayfish were observed, primarily in the northern on-site reaches of Santa Maria Creek. One bullfrog was noted in the central portion of Santa Maria Creek within the preserve (ESA 2019d).

Ongoing rangeland management practices that keep cattle outside of Santa Maria Creek outside of the arroyo toad breeding season will be maintained.

## Tricolored Blackbird

**Monitoring Location:** Ramona Grasslands Preserve

**Habitat surveyed:** suitable foraging and nesting habitat

**Assessment:** Visual surveys and habitat and threat assessment

**Reporting Year Monitoring Dates:** April 23

**Reporting Year Species Observed:** Yes

**Reporting Year Species Nesting:** No

Tricolored blackbirds were documented foraging in Ramona Grasslands in 2019, but nesting was not documented on or adjacent to the Preserve. The 2019 survey focused on areas identified as suitable nesting habitat during 2018 monitoring efforts, which consisted of effluent ponds within the adjacent Ramona Municipal Water District (RMWD) property and along Santa Maria Creek in Ramona Grasslands. Tricolored blackbirds nested in the effluent ponds located outside Ramona Grasslands, on RMWD lands, in 2017 (ESA 2019d). Tricolored blackbirds have been documented foraging annually in Ramona Grasslands with nesting occurring on the adjacent property (**Table 17**).

Low suitable tricolored blackbird nesting habitat occurs along Santa Maria Creek, which includes the segment just west of Rangeland Road as well as the northern segment, where a possible nesting area was documented during 2018 monitoring efforts. The habitat has low suitability because of limited thick, protective substrate/vegetation where tricolored blackbirds could nest. Most of the habitat is covered in mule fat thicket, a type of vegetation cover that can be utilized by tricolored blackbirds for nesting; however, the mule fat is neither thick nor dense enough to protect a nesting colony from predators. Due to the consistent rains throughout the spring of 2019, Santa Maria Creek was also flowing with water and there were no areas that had pooled to create tricolored blackbird habitat. The stock pond located within the Preserve had no vegetation immediately surrounding the pond where tricolored blackbirds could nest; therefore, the stock pond on the Preserve is not suitable for nesting tricolored blackbirds. This pond was also assessed during 2017 and 2018 monitoring efforts for tricolored blackbird breeding habitat enhancement but was deemed too small (0.7 acres) and likely infeasible due to cattle grazing on the Preserve (ESA 2019d).

At least two individuals were observed foraging with a flock of red-winged blackbirds during burrowing owl surveys within the Preserve on June 18, 2019. The flock was observed foraging along the RMWD property and Preserve boundary and along the north bank of the northern-most effluent pond on the adjacent RMWD property. They perched on the fence between the Preserve and RMWD property but were mostly foraging on RMWD property (ESA 2019d).

The TMP management goal for tricolored blackbirds is to maintain suitable foraging and nesting habitat on Ramona Grasslands Preserve (ESA and ICF 2015). Based on the habitat and threats assessment, the Preserve has low potential for tricolored blackbird nesting habitat. There are no wetland/marsh areas with protective substrate/vegetation on the Preserve within a large enough area that can support a breeding colony of tricolored blackbirds. Ramona Grasslands Preserve still provides suitable foraging habitat but currently lacks moderate- to high-quality nesting habitat. No adaptive management recommendations are

suggested at this time for the Preserve due to the lack of moderate- to high-quality tricolored blackbird nesting habitat (ESA 2019d).

## **Burrowing Owl**

**Monitoring Location:** Ramona Grasslands Preserve

**Habitat surveyed:** 9 monitoring polygons

**Assessment:** Visual surveys and habitat and threat assessment

**Reporting Year Monitoring Dates:** February 20, 22, April 24, 26, May 20, 21, June 18, 19

**Reporting Year Species Observed:** No

**Reporting Year Species Nesting:** No

Burrowing owls were not documented in Ramona Grasslands in 2019. No individuals or signs of burrowing owls were observed. The habitat and threats assessment evaluated vegetation and habitat suitability for the species. Due to their short stature, burrowing owls like short grasses to better see their surroundings and predators. Ground squirrel burrow complexes provide burrows for nesting. Vegetation height was low in March and taller April through June—typical of the growing season. Low vegetation height is desirable for burrowing owls and essential for burrow establishment. Ground squirrel burrow density varied across on-site suitable habitat from low to high. Reduced monitoring frequency is recommended based on the lack of burrowing owls on site (ESA 2019d). Burrowing owl observations are limited to one incidental observation by DPR staff in 2016. No burrowing owls or breeding activity has been observed during surveys (**Table 17**).

The TMP management goal for burrowing owl is to maintain suitable foraging and nesting habitat on Ramona Grasslands Preserve (Environmental Science Associates and ICF 2015). Overall, the site provides suitable nesting and foraging habitat.



**Burrowing owl is a Targeted Monitoring Plan species for which suitable habitat is found in Ramona Grassland Preserve.**

### **Coastal Cactus Wren**

**Monitoring Location:** Lakeside Linkage Preserve

**Habitat surveyed:** 6 avian point count stations

**Assessment:** Avian point counts and habitat and threat assessment

**Reporting Year Monitoring Dates:** March 12, April 12, May 17, June 12, July 3

**Reporting Year Species Observed:** Yes

**Reporting Year Species Nesting:** Yes

Coastal cactus wrens were documented nesting in the central property of Lakeside Linkage in 2019. The species was not observed or detected during avian point count surveys; however, one silent individual was observed. There were multiple cactus wren nests in the restoration site and one off-site on both coast prickly pear and coast cholla cactus. In June 2019, there was a nest rimmed with whitewash at the nest entrance. This indicates that the nest may have been successful and produced off-spring (ESA 2019d).

Individual have been observed on site since 2018 with 2019 being the first year with nesting success (Table 17).

Eight coastal cactus wren nests and one nesting success was documented in the central property for the first time this year. This is attributed to improved habitat conditions and decreased threats. Photo-monitoring has been conducted for the northern and southern cactus restoration sites on the central property of Lakeside Linkage Preserve from 2011-2016, 2018-2019. In the northern restoration area, there was no unauthorized access (seen in past years) and cactus height and density are now suitable for cactus wren nests. All eight cactus wren nests were in this area and were in good condition. Invasive plants were greater than 50% as observed in photo monitoring. Habitat conditions were similar in the southern restoration area; however, minimal walking trails were noted (ESA 2019d).

## Vernal Pool/Alkali Playa

**Monitoring Location:** Ramona Grasslands Preserve

**Habitat surveyed:** subset of 20 vernal pools

**Assessment:** qualitative surveys in wet and dry season and habitat and threat assessment

**Reporting Year Monitoring Dates:** February 28 and May 9

**Reporting Year Habitat Function:** 17 of 20 pools

Seventeen of the 20 sampled vernal pools supported at least one USACE indicator species in Ramona Grasslands in 2019. High vernal pool function can be attributed to above average annual rainfall, with over 20 inches of rain was reported by Ramona Airport, during the hydroperiod of July 1, 2018 to June 30, 2019. Between October 2018 and February 2019, the largest storm events occurred with rainfall totaling nearly 13 inches. USACE vernal pool floral indicator species were present at 16 of 20 pool monitored. San Diego fairy shrimp, a faunal indicator species was present at 7 of the 20 pools. (This indicator faunal species was found at one pool without indicator floral species, bringing the total to 17 pools with USACE indicator species). At one of the pools, it was the first time San Diego fairy shrimp was found present, along with Coulter's saltbush (*Atriplex coulteri*), a target vernal pool species of the TMP. Starwort (*Callitriche sp.*) and woolly marbles (*Psillocarphus brevissimus* var. *brevissimus*) were the most abundant indicator species observed, recorded at 11 and 15 pools, respectively (ESA 2019d).

Invasive, non-native plants and algae were observed in the pools. Grass poly (*Lythrum hyssopifolia*) and Italian rye grass were the most abundant invasive, non-native plants. Grass poly was observed in all surveyed pools. Italian rye grass was observed in 18 of 20 pools. Algal growth was noted in 11 of 20 pools (ESA 2019d).

Continued annual vegetation management and unauthorized access restriction will be performed.

## Raptor Foraging Study at Ramona Grasslands Preserve

Raptor use and foraging behavior is monitored at the Ramona Grasslands Preserve to understand bald and golden eagle and raptor abundance and distribution, inform adaptive management and public use, and evaluate potential threats. The study includes monitoring the year-to-year status of the off-site golden eagle territory adjacent to the preserve. Study methodology includes raptor point count field surveys and golden eagle nest monitoring.

Twelve raptor species were detected at both the northeast (NE) and southwest (SW) survey areas during the 2018-2019 raptor point count surveys. Six of the 12 raptors were MSCP covered species, which are golden eagle, bald eagle, American peregrine falcon, northern harrier, ferruginous hawk, and Cooper's hawk. Sharp-shinned hawk, prairie falcon, merlin, American kestrel, red-tailed hawk, and red-shouldered hawk were also observed. Raptor species richness was highest during the fall season. Raptor species richness was also higher in the NE survey area than the SW survey area throughout the fall, winter, and spring seasons (ESA 2019b).

Golden eagles were detected in each season in the Preserve. The Preserve is used by a minimum of two golden eagles throughout three seasons (fall, winter, and spring). A golden eagle pair was observed multiple times throughout the year within the Preserve, typically on the rocky outcrop northeast of the NE survey area. Without distinguishing markers or features, it is unknown if it was the same golden eagle pair observed throughout the 2018–2019 survey period or if multiple individuals/pairs were using the Preserve. All the known age observations were of adult golden eagles (ESA 2019b).

Bald eagles were detected in each season. The adult bald eagle pair was only observed together once in September 2018. One of the adult bald eagles (presumed female) was never observed again during the 2018–2019 survey season and the cause of the eagle's disappearance is unknown. During the winter season, up to three individual subadult birds were observed in the Preserve at one time; it is assumed the birds were attempting to occupy the vacant territory left by one of the adult bald eagles. By February 2019, a third year subadult female was established in the territory with the remaining adult male. The sexes were later confirmed based on size when the pair would perch adjacent to each other within the known nest tree in the northeast portion of the Preserve (ESA 2019b).

Golden eagles and other raptors nested in or adjacent to the Preserve. The golden eagle nest site in Bandy Canyon (off-site) was occupied and successfully fledged two chicks (determined through observation of mostly feathered-out chicks) in 2019. One bald eagle pair was observed attempting to nest on the Preserve in the same nest tree as previous years but was never observed laying eggs. This was attributed to the lack of sexual maturity by the new sub-adult female. Two red-tailed hawk nests, one American kestrel, and one western screech-owl nest were also observed (ESA 2019b).



**Active nest site with adult golden eagle and large downy chick in Bandy Canyon adjacent to Ramona Grasslands Preserve.**

## **Residual Dry Matter Monitoring at Ramona Grasslands Preserve**

Monitoring results indicate that the Preserve could support a potential increase in the number of cows grazing on-site as six of 10 of the grazed management units were under-grazed and four met residual dry matter targets. Ramona Grasslands Preserve is divided into 12 management units, 10 of which are grazed. The grazing program enhances rare plant and wildlife population and reduces invasive, non-native plants. To measure success, species and habitat-specific residual dry matter (RDM) targets were established. RDM is the amount of dry grass remaining after the growing season and grazing. Typically, a lower RDM is desirable to prevent the build-up of thatch (e.g., dried grass) and allow for greater visibility for native wildlife (e.g., shorter grass length). Target RDM values vary depending on the target plant or animal species management and range from 300 – 2,100 lbs./acre. Monitoring results were a low of 489 to a high of 3,167 lbs./acre (ESA 2019c). RDM monitoring was performed in October 2019.

The majority of management units were above their target RDM values in 2019. These results were likely influenced by above-average rainfall affecting the County during the 2018–2019 hydrologic year (National Oceanic and Atmospheric Administration 2019).

RDM monitoring identified areas that would benefit from invasive, non-native plant control. Invasive, non-native plant control should continue, with a focus on tamarisk in along Santa Maria Creek in support of arroyo toad management. Pasture 3E would also benefit from active restoration to remove Russian thistle and other weeds by a combination of mowing, herbicide treatment, and targeted grazing.

A Grazing Management Plan including Ramona Grasslands, Santa Ysabel, and Boulder Oaks Preserves was finalized in 2019. It re-examines current grazing levels at each Preserve and efficiencies of current grazing Management Units to support associated sensitive resources. It will be included as a reference in an upcoming DPR bid for new ranchers for these preserves.

## **7.2 Grant Funded Monitoring Projects**

There were no grant-funded monitoring projects in the reporting year.

## **7.3 Preserve Monitoring and Research Partnerships**

Research occurred on County Preserves through the County's ROE permit process (**Table 19**). ROE's were requested by federal and state agencies, local Universities, museums, and environmental organizations. In the past, the County has not charged for ROEs. Due to the extensive review ROEs require to ensure compliance with the MSCP and County rules, a fee to recover a portion of the processing cost may be implemented in the future. In 2019, these studies focused on species such as cactus wren, the coastal California gnatcatcher, the Kuroshio shot hole borer and other species inside and outside of the MSCP Subarea Plan Area. Only those studies that include properties within the MSCP Subarea Plan are summarized below. Reports and research findings obtained through the ROE permit process are shared with the County to further supplement monitoring efforts and to inform management recommendations.

**TABLE 19. PRESERVE MONITORING AND RESEARCH PARTNERSHIPS PROJECTS, MONITORING TARGETS, AND LOCATIONS IN REPORTING YEAR**

<b>Project Name</b>	<b>Project Lead</b>	<b>Monitoring/ Research Target</b>	<b>County Preserves Within MSCP Subarea Plan Area</b>	<b>County Parks and Preserves Outside MSCP Subarea Plan Area</b>
1. <b>BioBlitz Citizen Science Surveys</b>	Sula Vanderplank	Various	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> </ul>	
2. <b>San Diego National Wildlife Refuge Quino Checkerspot Butterfly Augmentation Project</b>	USFWS	Quino checkerspot butterfly	<ul style="list-style-type: none"> <li>• Otay Ranch Preserve</li> <li>• Otay Lakes Park</li> </ul>	
3. <b>Shot Hole Borer Research</b>	Boland Ecological Services	KSHB	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> <li>• Otay Valley Regional Park</li> <li>• Los Penasquitos Canyon Preserve</li> </ul>	
4. <b>MSCP Regional Coastal California Gnatcatcher Monitoring</b>	USGS	Coastal California Gnatcatcher	<ul style="list-style-type: none"> <li>• Santa Fe Valley Preserve</li> <li>• Lusardi Creek Preserve</li> <li>• Ramona Grasslands Preserve</li> <li>• Sycamore Canyon and Goodan Preserve Ranch</li> <li>• El Capitan Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Damon Lane Park</li> <li>• Stoneridge Preserve</li> <li>• Sweetwater Regional Park</li> <li>• Tijuana River Valley Regional Park</li> <li>• Lawrence and Barbara Daley Preserve</li> <li>• Otay Lakes Park</li> <li>• Otay Ranch Preserve</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Margarita Preserve</li> <li>• Diamond Trail (TET) Preserve</li> <li>• Wilderness Gardens Preserve</li> <li>• Sage Hill Preserve</li> <li>• Berkeley Hering Preserve</li> </ul>

**TABLE 19. PRESERVE MONITORING AND RESEARCH PARTNERSHIPS PROJECTS, MONITORING TARGETS, AND LOCATIONS IN REPORTING YEAR**

<b>Project Name</b>	<b>Project Lead</b>	<b>Monitoring/ Research Target</b>	<b>County Preserves Within MSCP Subarea Plan Area</b>	<b>County Parks and Preserves Outside MSCP Subarea Plan Area</b>
5. <b>MSCP regional Coastal Cactus Wren Surveys</b>	USGS	Coastal Cactus Wren	<ul style="list-style-type: none"> <li>• Sweetwater Regional Park</li> <li>• Furby-North Property</li> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Lakeside Linkage Preserve</li> </ul>	<ul style="list-style-type: none"> <li>• Cactus Park</li> </ul>
6. <b>Pacific Pocket Mouse, Blainville's horned lizard, and Argentine Ants survey</b>	USGS	Pacific Pocket Mouse, Blainville's horned lizard, and Argentine ants	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> </ul>	
7. <b>Biocontrol of Shothole Borer</b>	University of California Davis	Polyphagous and Kuroshio Shot Hole Borer Beetles	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> <li>• Flinn Springs Park</li> <li>• Louis A. Stelzer Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Lusardi Creek Preserve</li> </ul>	<ul style="list-style-type: none"> <li>• San Elijo Lagoon Ecological Reserve</li> <li>• Live Oak Park</li> <li>• San Luis Rey River Park</li> <li>• Guajome Park</li> <li>• Wilderness Gardens Preserve</li> <li>• Rancho Guajome Adobe Park</li> <li>• Felicita Park</li> <li>• Live Oak Park</li> <li>• San Dieguito Park</li> </ul>
8. <b>Least Bell's Vireo and Southwestern Willow Flycatcher Surveys</b>	USGS	Least Bell's vireo and southwestern willow flycatcher	<ul style="list-style-type: none"> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Sweetwater Regional Park</li> <li>• Tijuana River Valley Regional Park</li> </ul>	<ul style="list-style-type: none"> <li>• San Luis Rey River Park</li> <li>• Guajome Park</li> <li>• Lake Morena Park</li> <li>• Vallecito Park</li> <li>• William Heise Park</li> <li>• San Elijo Lagoon Ecological Reserve</li> </ul>

**TABLE 19. PRESERVE MONITORING AND RESEARCH PARTNERSHIPS PROJECTS, MONITORING TARGETS, AND LOCATIONS IN REPORTING YEAR**

<b>Project Name</b>	<b>Project Lead</b>	<b>Monitoring/ Research Target</b>	<b>County Preserves Within MSCP Subarea Plan Area</b>	<b>County Parks and Preserves Outside MSCP Subarea Plan Area</b>
<b>9. Plant Atlas</b>	SD Natural History Museum	Various	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve</li> <li>• Boulder Oaks Preserve</li> <li>• Del Dios Highlands Preserve</li> <li>• El Capitan Preserve</li> <li>• El Monte Park</li> <li>• Flinn Springs Park</li> <li>• Lakeside Linkage Preserve</li> <li>• Los Penasquitos Canyon Preserve</li> <li>• Luelf Pond Preserve</li> <li>• Oakoasis Preserve</li> <li>• Otay Lakes Park</li> <li>• Otay Valley Regional Park</li> <li>• Ramona Grasslands Preserve</li> <li>• Louis A. Stelzer Preserve</li> <li>• Sweetwater Regional Park</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Tijuana River Valley Regional Park</li> </ul>	<ul style="list-style-type: none"> <li>• Agua Caliente</li> <li>• Dos Picos Park</li> <li>• Escondido Creek</li> <li>• Felicita Park</li> <li>• Rancho Guajome Adobe Park</li> <li>• Guajome Park</li> <li>• Hellhole Canyon Preserve</li> <li>• Lake Morena Park</li> <li>• Lindo Lake Preserve</li> <li>• Live Oak Park</li> <li>• Mt. Gower Preserve</li> <li>• Palomar Mountain Park</li> <li>• Pine Valley Park</li> <li>• Potrero Park</li> <li>• San Dieguito Park</li> <li>• San Elijo Lagoon Ecological Reserve</li> <li>• Santa Ysabel Preserve</li> <li>• Simon Preserve</li> <li>• Volcan Mountain Wilderness Preserve</li> <li>• Wilderness Gardens Preserve</li> <li>• William Heise Park</li> </ul>
<b>10. Rare Plant Seed Collection</b>	San Diego Zoo	Various	<ul style="list-style-type: none"> <li>• Boulder Oaks Preserve</li> <li>• Del Dios Highlands Preserve</li> <li>• El Capitan Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Louis A. Stelzer Preserve</li> <li>• Oakoasis Preserve</li> <li>• Ramona Grasslands Preserve</li> </ul>	<ul style="list-style-type: none"> <li>• Santa Margarita Preserve</li> <li>• Santa Ysabel Preserve</li> <li>• Volcan Mountain Wilderness Preserve</li> <li>• Wilderness Gardens Preserve</li> <li>• William Heise Park</li> <li>• Simon Preserve</li> </ul>

**TABLE 19. PRESERVE MONITORING AND RESEARCH PARTNERSHIPS PROJECTS, MONITORING TARGETS, AND LOCATIONS IN REPORTING YEAR**

<b>Project Name</b>	<b>Project Lead</b>	<b>Monitoring/ Research Target</b>	<b>County Preserves Within MSCP Subarea Plan Area</b>	<b>County Parks and Preserves Outside MSCP Subarea Plan Area</b>
11. <b>Golden Eagle Research</b>	USGS	Golden eagle	<ul style="list-style-type: none"> <li>• El Capitan Preserve</li> <li>• Ramona Grasslands Preserve</li> </ul>	<ul style="list-style-type: none"> <li>• Lake Morena Park</li> </ul>
12. <b>Field Herpetology Course and Research</b>	SDSU	Small mammals, reptiles, and amphibians	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• El Monte Park</li> <li>• El Capitan Preserve</li> </ul>	
13. <b>Rare Plant Monitoring</b>	SDMMP	Various	<ul style="list-style-type: none"> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Boulder Oaks Preserve</li> <li>• Lusardi Creek Preserve</li> <li>• Louis A. Stelzer Preserve</li> <li>• Tijuana River Valley Regional Park</li> <li>• Otay Valley Regional Park</li> <li>• Furby-North Property</li> </ul>	<ul style="list-style-type: none"> <li>• Simon Preserve</li> <li>• Escondido Creek Preserve</li> <li>• Mt. Olympus Preserve</li> <li>• Wilderness Gardens Preserve</li> </ul>

**TABLE 19. PRESERVE MONITORING AND RESEARCH PARTNERSHIPS PROJECTS, MONITORING TARGETS, AND LOCATIONS IN REPORTING YEAR**

Project Name	Project Lead	Monitoring/ Research Target	County Preserves Within MSCP Subarea Plan Area	County Parks and Preserves Outside MSCP Subarea Plan Area
14. Badger Monitoring	USGS	American badger	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve</li> <li>• Boulder Oaks Preserve</li> <li>• Del Dios Highlands Preserve</li> <li>• El Capitan Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Lakeside Linkage Preserve</li> <li>• Los Penasquitos Canyon Preserve</li> <li>• Luelf Pond Preserve</li> <li>• Lusardi Creek</li> <li>• Oakoasis Preserve</li> <li>• Otay Ranch Preserve</li> <li>• Ramona Grasslands Preserve</li> <li>• Tijuana River Valley Regional Park</li> </ul>	<ul style="list-style-type: none"> <li>• Hellhole Canyon Preserve</li> <li>• Mt. Gower Preserve</li> <li>• San Elijo Lagoon Ecological Reserve</li> <li>• Santa Margarita Preserve</li> <li>• Santa Maria Creek Preserve</li> <li>• Santa Ysabel Preserve</li> <li>• Simon Preserve</li> <li>• Volcan Mountain Wilderness Preserve</li> <li>• Wilderness Gardens Preserve</li> </ul>

SOURCE: DPR

## BioBlitz Citizen Science Surveys

**Project Lead:** Sula Vanderplank

**Project Timeline:** March 2018 – March 2019

**Target Species or Habitat:** Various

**County Preserves within MSCP Subarea Plan Area:** Tijuana River Valley Regional Park

The *BioBlitz Citizen Science Surveys* project documented over 2,000 plant and animal observations over four days in Tijuana River Valley Regional Park over a one-year period. In March 2018, Sula Vanderplank launched a year-long Border BioBlitz project; a communal citizen-science effort to record as many species as possible on each side of the US-Mexico border. Independent citizen scientists were organized as a team part of the Next Generation Sonoran Desert Researchers broader Border BioBlitz initiative. Groups of biologists and citizen scientists collected observational data, took photographs, and documented GPS coordinates of various species for one day, four times during the year, which were uploaded to the online database iNaturalist.org. The BioBlitz has documented over 2,000 observations

within the past year and concluded in March 2019 (Border BioBlitz 2018). Species data collected during the BioBlitz will add to the species list for the Park.

## San Diego National Wildlife Refuge Quino Checkerspot Butterfly Augmentation Project

**Project Lead:** USFWS

**Project Timeline:** March 2017 – March 2019

**Target Species or Habitat:** Quino checkerspot butterfly

**County Preserves within MSCP Subarea Plan Area:** Otay Ranch Preserve, Otay Lakes Park

The *San Diego National Wildlife Refuge Quino Checkerspot Butterfly Augmentation* project collected Quino checkerspot butterflies for captive breeding over a two-year period. In March 2017, USFWS began The San Diego National Wildlife Refuge Quino Checkerspot Butterfly Augmentation Project. The central goal of this project was to improve the overall resilience of the Quino population in San Diego by supplementing the metapopulation, which has declined in recent decades. The USFWS aimed to achieve this goal by establishing a captive breeding population of Quino at the San Diego Zoo and ultimately release Quino larvae within the Otay and Sweetwater regions, with the hopes that it will function as a third large, stable population in San Diego County. A total of 32 adult Quino were collected during the project life which produced over 8,000 larvae in captivity. By the end of the project, over 6,500 larvae were released at four different locations, and all sites successfully supported the emergence of adults (Strahm 2018).



**Adult Quino found at Otay Ranch Preserve. (Photo Credit: Spring Strahm)**

## Kuroshio Shot Hole Borer Monitoring

**Project Lead:** Boland Ecological Services

**Project Timeline:** August 2016 – November 2020

**Target Species or Habitat:** Oak and riparian woodlands

**County Preserves within MSCP Subarea Plan Area:** Tijuana River Valley Regional Park, Otay Valley Regional Park, Los Penasquitos Canyon Preserve

The *Kuroshio Shot Hole Borer Monitoring* project monitors invasive Kuroshio shot hole borer (KSHB) and *Fusarium* sp. to inform invasion extent and treatment in Tijuana River Valley Regional Park, Otay Valley Regional Park, and Los Penasquitos Canyon Preserve over a nearly four-year period. To slow and minimize the spread of the invasive KSHB and *Fusarium* sp. in the southern County riparian habitat, Boland Ecological Services, as part of an agreement with Naval Base Coronado and Southwest Wetlands Interpretive Association (SWIA), began monitoring KSHB infestation rates, forest damage intensity levels and regrowth of native tree species seedlings. Monitoring efforts began in August 2016 and will continue into November 2020. Yearly reports and findings indicate that the KSHB has continued its spread within riparian forests in the Tijuana River Valley, where it has killed an estimated 30% of willows in the valley since KSHB was first documented in 2015. Surprisingly, recent findings indicate

that willow re-sprouts are growing rapidly and are not being re-invaded by KSHB; the reasoning is still unclear. Future research will continue to examine the spread of the shot hole borer, riparian habitat recovery, and appropriate best management practices for prevention and eradication of KSHB and *Fusarium* dieback (Boland 2019). Monitoring efforts will inform management of KSHB across the MSCP Preserve.



**Riparian forest adjacent to the Dairy Mart Bridge showing damage in February 2016 following the KSHB infestation.**



**The same riparian forest in April 2019 showing signs of recovery. (Photo Credits: John Boland)**

## MSCP Regional Coastal California Gnatcatcher Monitoring

**Project Lead:** USGS

**Project Timeline:** March 2015 – September 2019

**Target Species or Habitat:** Coastal California Gnatcatcher

**County Preserves within MSCP Subarea Plan Area:** Santa Fe Valley Preserve, Lusardi Creek Preserve, Ramona Grasslands Preserve, Sycamore Canyon and Goodan Ranch Preserve, El Capitan Preserve, Otay Valley Regional Park, Damon Lane Park, Stoneridge Preserve, Sweetwater Regional Park, Tijuana River Valley Regional Park, Lawrence and Barbara Daley Preserve, Otay Lakes Park, and Otay Ranch Preserve

**County Parks and Preserves Outside MSCP Subarea Plan Area:** Santa Margarita Preserve, Diamond Trail (TET) Property, Wilderness Gardens Preserve, Sage Hill Preserve, and Berkeley Hering Preserve

The *MSCP Regional Coastal California Gnatcatcher Monitoring* project monitors California gnatcatcher populations and its habitat in all County parks and preserves with suitable habitat for five-year period. In early 2015, USGS began to survey for and monitor coastal California gnatcatcher populations in order to ascertain the species' status on conserved lands in the County and to understand how gnatcatcher occupancy is correlated to coastal sage scrub plant species composition, cover, and structure. Non-invasive presence surveys were conducted as well as a habitat assessment to determine the abundance and quality of coastal sage scrub habitat within each of the properties. This study concluded in September 2019 but monitoring efforts will continue into 2020 as part of a larger monitoring effort organized by

USGS focusing on California gnatcatcher, coastal cactus wren, least Bell's vireo, and southwestern willow flycatcher.

## MSCP Regional Coastal Cactus Wren Surveys

**Project Lead:** USGS

**Project Timeline:** March 2017 – September 2019

**Target Species or Habitat:** Cactus Wren

**County Preserves within MSCP Subarea Plan Area:** Cactus Park, Sweetwater Regional Park, Furby-North Property, Otay Ranch Preserve, Otay Valley Regional Park, Lakeside Linkage Preserve

The *MSCP regional Coastal Cactus Wren Surveys* monitored coastal cactus wren populations and suitable habitat across six County Preserves over a two-year period. In 2017, The Nature Conservancy (TNC) and USGS began a two-year study of the coastal cactus wren to evaluate the quality of the previously mapped cactus patches, map cactus patches on previously inaccessible lands, conduct presence/absence surveys, and conduct nest monitoring activities. In 2019, cactus wrens were positively identified at the Furby-North Property, Otay Ranch Preserve, and at Sweetwater Regional Park. Four breeding pairs were observed at Sweetwater Regional Park who produced 5 fledglings (B. Kus pers comm). This information will be used to make an informed decision regarding the current and future needs for maintaining a viable cactus wren population in southern California, which is currently isolated from nearby cactus wren populations to the north. Cholla (a critical component of healthy coastal cactus wren habitat) from the Otay Valley Regional Park is shown in below.

This project is part of a regional effort to restore cactus wren populations within the county. DPR has received grant funding to restore habitat for cactus wren within the Otay River Valley complementing previous grant funded work in the Salt Creek area. These projects assist with the recovery of the Otay genetic cluster as identified by SDMMP.



**California gnatcatcher is monitored across all County preserves and parks with suitable habitat by USGS.**



**Cholla cactus are used by California gnatcatchers for nesting (ouch!).**

## Pacific Pocket Mouse Survey, Horned Lizard Trapping, Argentine Ant Surveys

**Project Lead:** USGS

**Project Timeline:** October 2018- November 2019

**Target Species or Habitat:** Pacific pocket mouse (PPM), horned lizard, argentine ant

**County Preserves within MSCP Subarea Plan Area:** Tijuana River Valley Regional Park

The *Pacific Pocket Mouse Survey, Horned Lizard Trapping, Argentine Ant Surveys* project determined the presence of PPM, Blainville's horned lizard, and invasive Argentine Ants in Tijuana Valley Regional Park over a one-year period. In October 2018, USGS began a multi-species surveying project which included trapping and tissue sampling of Blainville's horned lizard (MSCP Covered Species), baiting and collecting of invasive Argentine Ants, and non-invasive presence surveys for the federally listed PPM. The project aimed to ascertain the presence/absence of the PPM which will potentially help inform the development of reintroduction plans for this species. Unfortunately, trapping for Blainville's horned lizard was unsuccessful and no tissue samples were collected. Additionally, weather conditions also deterred researchers from confirming presence of PPM. Presence of Argentine ants was confirmed at 90/100 of the survey plots in the River Valley. USGS plans to continue surveys for Argentine ants and PPM in Spring 2020.

## Biocontrol of Shot Hole Borers

**Project Lead:** University of California Davis (UCD)

**Project Timeline:** July 2016 – July 2021

**Target Species or Habitat:** Invasive shot hole borers

**County Preserves within MSCP Subarea Plan Area:** Tijuana River Valley Regional Park, Flinn Springs Park, Louis A. Stelzer Park, Otay Valley Regional Park, Sycamore Canyon and Goodan Ranch Preserve, Lusardi Creek Preserve

**County Parks and Preserves Outside MSCP Subarea Plan Area:** San Elijo Lagoon Ecological Reserve, Live Oak Park, San Luis Rey River Park, Guajome Regional Park, Wilderness Gardens Preserve, Rancho Guajome Adobe Park

The *Biocontrol of Shot Hole Borers* project studies the effectiveness of biocontrols for the invasive fungal pathogen, *fusarium* sp., and shot hole borers in six County Preserves over a five-year period. In July 2016, Dr. Akif Eskalen (formerly with the University of California Riverside) began a five-year research project to study local biocontrol options and develop a phylogenetically informed risk model for incidence and spread of *Fusarium* sp. and their insect vectors, polyphagous and Kuroshio shot hole borers, throughout southern California. UCD biologists are monitoring pest and disease establishment and distribution in addition to determining whether trunk injections of systemic pesticides can be effectively deployed within critical reproductive hosts to protect highly valued trees from infestations. In 2017, the study area was expanded to include Flinn Springs Park, Louis A. Stelzer Park, Otay Valley Regional Park, Sycamore Canyon and Goodan Ranch Preserve, Lusardi Creek Preserve, and San Dieguito Park. Coast live oak trees, one of the many host tree species vulnerable to invasive shot hole borers.



**Coast live oak trees are vulnerable to invasive shot hole borers in San Diego County**

## Least Bell's Vireo and Southwestern Willow Flycatcher Surveys

**Project Lead:** USGS

**Project Timeline:** March 2018 – August 2020

**Target Species or Habitat:** Least Bell's Vireo and Southwestern Willow Flycatcher

**County Preserves within MSCP Subarea Plan Area:** Otay Ranch Preserve, Otay Valley Regional Park, Sweetwater Regional Park, Tijuana River Valley Regional Park

**County Parks and Preserves Outside MSCP Subarea Plan Area:** San Luis Rey River Park, Guajome Regional Park, Lake Morena Park, Vallecito Park, William Heise Park, San Elijo Lagoon Ecological Reserve

The *Least Bell's Vireo and Southwestern Willow Flycatcher Surveys* monitors territory occupancy across four MSCP Subarea Plan preserves over a two-year period. In March 2018, USGS continued their long-term surveys for the federally endangered least Bell's vireo and southwestern willow flycatcher in County preserves and parks, with a central focus on the middle San Luis Rey River (MSLRR) in Oceanside. Unfortunately, surveys could not be completed in 2019, however, reports from the 2018 survey year at the MSLRR indicate that the populations of both species are fairly consistent with previous years. In fact, in 2018, the vireo population exceeded the 10-year mean for number of territories (148 recorded territories in 2018 with a 10-year mean of  $130 \pm 22$ ), and vireo's native to the lower San Luis Rey River were documented immigrating to the MSLRR (Allen and Kus 2019). USGS plans to continue surveys into

2020 as part of a larger monitoring effort focused on California gnatcatcher, cactus wren, least Bell's vireo, and southwestern willow flycatcher.

## San Diego County Plant Atlas Project

**Project Lead:** San Diego Natural History Museum

**Project Timeline:** June 2016 – December 2020

**Target Species or Habitat:** Various

**County Preserves within MSCP Subarea Plan Area:** Barnett Ranch Preserve, Boulder Oaks Preserve, Del Dios Highlands Preserve, Dos Picos Park, El Capitan Preserve, El Monte Park, Flinn Springs Park, Rancho Guajome Adobe Park, Guajome Park, Lakeside Linkage Preserve, Lindo Lake Park, Los Penasquitos Canyon Preserve, Luelf Pond Preserve, Oakoasis Preserve, Otay Lakes Park, Otay Valley Regional Park, Ramona Grasslands Preserve, Louis A. Stelzer Park, Sweetwater Regional Park, Sycamore Canyon and Goodan Ranch Preserve, Tijuana River Valley Regional Park

**County Parks and Preserves Outside MSCP Subarea Plan Area:** Agua Caliente Park, Escondido Creek Preserve, Felicita Park, Hellhole Canyon Preserve, Lake Morena Park, Live Oak Park, Mt. Gower Preserve, Palomar Mountain Park, Pine Valley Park, Potrero Park, San Dieguito Park, San Elijo Lagoon Ecological Reserve, Santa Ysabel Preserve, Simon Preserve, Volcan Mountain Wilderness Preserve, Wilderness Gardens Preserve, and William Heise Park

The *San Diego County Plant Atlas Project* documents and collects non-listed plants in 23 County Preserves. Throughout County parks and preserves, the San Diego Natural History Museum (SDNHM) continued the Plant Atlas Project, which focuses on the documentation and collection of non-threatened plant specimens. Since the project began in 2005, over 3,600 specimens have been collected and added to the Plant Atlas for the County (L. Aerne-Hains pers comm). Trained volunteers will continue their collection of museum-quality voucher plant specimens through 2020. Collected specimens will be stored and cared for at the San Diego Herbarium and will eventually be included in the *San Diego County Plant Atlas Project* database.

## Golden Eagle Research

**Project Lead:** USGS

**Project Timeline:** February 2018 – August 2020

**Target Species or Habitat:** Golden Eagles

**County Preserves within MSCP Subarea Plan Area:** El Capitan Preserve, Ramona Grasslands Preserve

**County Parks and Preserves Outside MSCP Subarea Plan Area:** Lake Morena Park

The *Golden Eagle Research* project studies Golden Eagle movement and habitat use in El Capitan and Ramona Grasslands Preserves over a two-year period. In February 2018, USGS began a multi-year study focusing on the movements and habitat use of the MSCP-covered golden eagle. For the purpose of this study, USGS has installed wildlife cameras within likely golden eagle use areas at each of the preserves. Once the presence of golden eagles has been confirmed, bait stations are set up near the wildlife cameras. If feeding and visitation has been confirmed by a sub-adult or adult eagle, USGS biologists will trap the individual and fit it with GPS-GSM telemetry unit for tracking its movements. The results of this study will help inform management and monitoring efforts for golden eagles in the County and will provide a greater insight into the habitats that are the most critical for the success of this species.

## Field Herpetology Course and Research

**Project Lead:** San Diego State University (SDSU)

**Project Timeline:** March 2019 – December 2022

**Target Species or Habitat:** Various

**County Preserves within MSCP Subarea Plan Area:** Tijuana River Valley Regional Park, Sycamore Canyon and Goodan Ranch Preserve, El Monte Park, El Capitan Preserve

The *Field Herpetology Course and Research* course teaches students techniques for field study of amphibians and reptiles in four MSCP Subarea Plan preserves for a four-year period. Dr. Rulon Clark, a biology professor at SDSU, began teaching a new advanced ecology course in field herpetology with a focus on teaching future field biologists the proper techniques on how to locate, capture, handle, and collect basic data from non-threatened reptiles and amphibians. As part of this course, students are also documenting photographs of identified species for contribution to the citizen scientist database, iNaturalist. Tissue samples collected through this course will contribute to the professor's long-term efforts to collect ecological data on occurrence, abundance, and genetic connectivity of local reptiles in the County. Field visits for this purpose were granted at four County Preserves and if course scheduling permits, this program will continue through 2022.



**A biology student holds a horned lizard captured during a field visit at Tijuana River Valley Regional Park**

## SDMMP Rare Plant Monitoring

**Project Lead:** Conservation Biology Institute (CBI)

**Project Timeline:** March 2018 – December 2019

**Target Species or Habitat:** Rare plants

**County Preserves within MSCP Subarea Plan Area:** Sycamore Canyon and Goodan Ranch Preserve, Boulder Oaks Preserve, Lusardi Creek Preserve, Louis A. Stelzer Park, Tijuana River Valley Regional Park, Otay Valley Regional Park, Furby-North Property

**County Parks and Preserves Outside MSCP Subarea Plan Area:** Simon Preserve, Escondido Creek Preserve, Mt. Olympus Preserve, Wilderness Gardens Preserve

The *SDMMP Rare Plant Monitoring* project documented rare plants in seven MSCP Subarea Plan preserves over a two-year period. Under contract with SANDAG and in collaboration with DPR, CBI began a year-long monitoring effort in March 2018, which focused on documenting the occurrences of rare plant species to contribute to the SDMMP. Data collection followed the methodology outlined in the SDMMP Management Strategic Plan 2018 Rare Plant Monitoring Protocol and identified target species and their location were recorded. In 2019, San Diego thornmint, Orcutt’s brodiaea, Orcutt’s bird’s-beak, and Otay tarplant were all documented in County Preserves (J. Vinje pers comm). CBI hopes to continue monitoring rare plants for the SDMMP through 2020 if funding permits.

## MSCP Regional Badger Survey

**Project Lead:** USGS

**Project Timeline:** August 2019 – December 2020

**Target Species or Habitat:** American badgers

**County Preserves within MSCP Subarea Plan Area :** Barnett Ranch Preserve, Boulder Oaks Preserve, Del Dios Highlands Preserve, El Capitan Preserve, Sycamore Canyon and Goodan Ranch Preserve, Lakeside Linkage Preserve, Los Penasquitos Canyon Preserve, Luelf Pond Preserve, Lusardi Creek Preserve, Oakoasis Preserve, Otay Ranch Preserve, Ramona Grasslands Preserve, Tijuana River Valley Regional Park

**County Parks and Preserves Outside MSCP Subarea Plan Area:** Hellhole Canyon Preserve, Mt. Gower Preserve, San Elijo Lagoon Ecological Reserve, Santa Margarita Preserve, Santa Ysabel Preserve, Simon County Preserve, Volcan Mountain Wilderness Preserve, Wilderness Gardens Preserve

The *MSCP Regional Badger Survey* project establishes presence/absence of American badgers across 12 County Preserves over a two-year period. In August 2019, USGS continued their long-term surveying project which is focused on ascertaining the presence/absence of American badgers at multiple County properties. Surveys conducted by USGS include the use of wildlife cameras, ground searches for active burrows, scat collection, and hair snags to determine presence of badgers at a site. To supplement their efforts, USGS has set up a “Badger Hotline” and badger email account for citizen scientists and biologists to report potential badger sightings to USGS. This project will continue through 2020 and the results will be used to determine the activity of local badgers and identify high use areas for this species. In 2019, wildlife cameras placed near a burrow confirmed presence of badgers at Volcan Mountain Wilderness Preserve, which is part of the proposed East County MSCP Plan.



**American badger documented in Volcan Mountain Wilderness Preserve.**

## 7.4 Otay Ranch Preserve Monitoring

Primary tasks performed in 2019 included surveys for least Bell's vireo, yellow-billed cuckoo, Quino checkerspot butterfly, and focused rare plant species. Vernal pool plant monitoring as well as wet season fairy shrimp surveys were also conducted. Vegetation mapping was conducted within the Ridge and Western Wolf Canyon parcels. Monitoring for both Kuroshio shot hole borer was completed in the riparian habitat within the Salt Creek parcel and gold-spotted oak borer was completed in the oak woodland habitat within the Dulzura parcels. Otay Ranch contract monitoring occurred through June 2019. For 2020, a new work planning process will be initiated. City of Chula Vista and the County will meet at early in the year to review the annual work plan and ensure staffing and contracting instruments are in place to successfully implement MSCP management and monitoring. Regular coordination meetings will track progress.

### Least Bell's Vireo

Least Bell's vireo surveys were conducted at the Salt Creek, Northern Salt Creek, and Wolf Canyon parcels. In 2019, a total of 24 least Bell's vireo territories was identified during surveys and monitoring at the project area. Of the 24 territorial males, 23 were confirmed as paired, and one was confirmed as a

single male. Least Bell's vireos declined from 13 to 9 territories at the City and Formerly Used Defense Site (FUDS) survey sites from 2018 to 2019. Territory numbers at Salt Creek increased from four to five territories from 2018 to 2019, although one of these territories was defended by a single male for two and a half weeks. Least Bell's vireos remained stable at four territories at the ICF survey site in 2018 and 2019. Four territories were detected within the expanded survey site of Northern Salt Creek, and two territories were detected within Wolf Canyon.

Nesting activity was monitored in 23 territories across the project area, with 21 on the Otay River and Salt Creek (City, FUDS, ICF, Salt Creek, and Northern Salt Creek survey sites) and two at Wolf Canyon. Of these, 21 were considered "fully monitored," meaning that all nests within the territory were found and monitored during the breeding season. Pairs within the remaining two territories were documented nesting; however, these were "partially monitored," meaning only a subset of nests were monitored. One partially monitored territory was detected with fledglings, but a nest was never found. One territory occupied by a single male from April 29 to May 12, 2019 was excluded from the nesting analysis. A total of 43 nests was monitored during the breeding season, with 41 at Otay River and Salt Creek and two at Wolf Canyon. Overall, 61% (25/41) of completed nests were successful and fledged young at Otay River (City, FUDS, ICF) and Salt Creek (Salt Creek, Northern Salt Creek) in 2019. Predation was believed to be the primary source of nest failure at Otay River (City, FUDS, ICF) and Salt Creek (Salt Creek, Northern Salt Creek). Predation accounted for 34% (14/41) of nest failures. Nest failures were not limited to nest predation. One nest failed directly as a result of parasitism. After the pair had incubated four eggs for approximately one week, the nest was found with one cowbird egg and one vireo egg inside the nest and two cracked vireo eggs below the nest. One nest was abandoned with four eggs three days after the eggs should have hatched.

## **Yellow-billed Cuckoo**

Yellow-billed cuckoo surveys were conducted at the Salt Creek, Northern Salt Creek, and Wolf Canyon parcels. One yellow-billed cuckoo was observed during the final survey on September 3, 2019. This silent individual was first observed in the large eucalyptus grove along Wiley Road in the FUDS survey site. It was then observed flying towards a large eucalyptus about 15 meters up where it perched for a few seconds. It then flew off, about 20 meters away to another eucalyptus tree. After foraging briefly, the cuckoo flew off across the riparian over 150 meters to the southwest. The bird never vocalized and was not detected again. Yellow-billed cuckoo observations from previous years comprised one individual in 2012 (Clark 2012) and one individual in 2016 (ICF 2017) within Otay River.

## **Quino checkerspot butterfly**

Quino checkerspot butterfly surveys were conducted on the Proctor Valley parcel. Quino checkerspot butterfly survey guidelines require survey to be conducted weekly beginning the third week of February and ending the second Saturday in May. However, a deviation from these guidelines was approved for these surveys. The approved deviation allowed for a maximum of five surveys within the survey area rather than continuing surveys to the end of the season or until Quino checkerspot butterflies were detected. The deviation also permitted focused surveys to commence after the third week of February. Based on the observed state of host plants and nectar plants during the habitat assessment and the projected weather forecast, focused surveys began on March 14, 2019. The focused surveys were

conducted between March 14 and April 18, 2019. Dot-seed plantain and purple owl's clover were found to occur within the Proctor Valley parcel. A total of 279 butterflies and skippers were observed during the focused surveys, representing 15 species. One Quino checkerspot butterfly adult was observed during Survey 2. Two larval host plant species (i.e., dot-seed plantain and purple owl's-clover) were observed in patches ranging in number from less than 10 to 25,000-50,000 individuals within the survey areas. Most of the dot-seed plantain occurred near the eastern edge of the survey area along the ridgetop. Many of the patches were host plants occurred consisted of biotic soil crusts. The survey area supports large patches of nectar plant species, such as goldfields, farinose ground-pink, cryptantha, blue dicks, California buckwheat, chaparral gilia, and popcorn flower.

## Kuroshio Shot Hole Borer

Kuroshio shot hole borer monitoring was conducted within the Salt Creek drainage and Wolf Canyon. This included trees that exhibited signs of infestation on the trunk/limbs and had branch dieback in the Salt Creek parcels, as well as trees that had a very minor amount of entry holes on the branches and no visible signs of die-back in the Northern Salt Creek parcels. While trees with *Fusarium* was not located in the Otay River, our trapping results indicated Kuroshio shot hole borer was present in the Otay River, as well. Upon consulting with Dr. Akif Eskalan, Plant Pathologist with UC Cooperative Extension with UC Davis, and Wildlife Agency staff, the trees remained in place as-is to see if they can recover. Additionally, the trees have full canopies indicating they may recover and provide habitat for least Bell's vireo.

## 7.5 Private Mitigation Lands Monitoring

RMPs are required as a condition of development entitlements when biological resources have been determined to be impacted by the proposed development, and the acreage of required mitigation exceeds 50 acres, on or off-site. RMPs may also be required when open space less than 50 acres is proposed if a particularly sensitive resource is present that would benefit from active management and/or monitoring. RMPs are approved by PDS and require submission of annual monitoring reports focusing on the resource attributes of that specific site, detailing the monitoring and habitat management activities conducted within the previous year. Controlling and managing public access through fencing, signage, and patrolling is another component of the RMPs. Annual reports also document any issues and the overall health of the Preserve, which allows the County to assess the biological integrity of the open space habitats protected by each RMP. Annual reports are publicly available online through the PDS Document Library found on the PDS webpage. **Appendix L** provides a general overview of the 17 RMPs located within the MSCP Subarea Plan including a description of the habitat conservation area, required surveys, and monitoring/maintenance status for each RMP. In 2019, one RMP was added to the inventory (RMP 16-004 Otay Crossings Commerce Park). San Diego Habitat Conservancy commenced management of the Otay Crossings Commerce Park On-site Biological Open Space in January 2018.

Annual RMP report due dates vary from project to project. An accounting of RMP annual report submissions revealed that in 2019, 12 of the 17 (71%) RMPs submitted reports for the 2018/2019 reporting period. **Table 20** summarizes the MSCP covered species documented in the 2019 annual RMP monitoring reports.

**TABLE 20. MSCP COVERED SPECIES DOCUMENTED ON PRIVATE MITIGATION LANDS IN REPORTING YEAR**

Common Name	Private Mitigation Area																
	98-001 Bernardo Lakes	99-001 4S Ralphs Family	99-002-02 4S Specific Plan	99-003 Golem	99-004 Starwood	99-005 Woodridge	01-001 Blossom Valley	02-001 McCrink Ranch	02-003 Maranatha	03-002 El Apajo	05-004 Greenhills Ranch	06-005 Artesian Trail	11-002 Lonestar	10-003 East Otay Mesa	12-002 Sloane Canyon	12-003 Trevi Hills	16-004 Otay Crossings
<b>Plants</b>																	
San Diego ambrosia				✓													
Del Mar manzanita				✓													
San Diego barrel cactus				✓									✓				✓
San Diego mesa mint				✓													
San Diego button celery				✓													
Orcutt's brodiaea				✓													
Snake cholla																	✓
Variegated dudleya																	✓
Wart-stemmed ceanothus				✓													
Sticky dudleya				✓													
<b>Reptiles</b>																	
Belding's Orange-throated whiptail											✓						

TABLE 20. MSCP COVERED SPECIES DOCUMENTED ON PRIVATE MITIGATION LANDS IN REPORTING YEAR

Common Name	Private Mitigation Area																
	98-001 Bernardo Lakes	99-001 4S Ralphs Family	99-002-02 4S Specific Plan	99-003 Golem	99-004 Starwood	99-005 Woodridge	01-001 Blossom Valley	02-001 McCrink Ranch	02-003 Maranatha	03-002 El Apajo	05-004 Greenhills Ranch	06-005 Artesian Trail	11-002 Lonestar	10-003 East Otay Mesa	12-002 Sloane Canyon	12-003 Trevi Hills	16-004 Otay Crossings
<b>Birds</b>																	
California gnatcatcher					✓	✓					✓			✓			✓
least Bell's vireo				✓	✓												
California rufous-crowned sparrow											✓			✓			✓
Cooper's hawk											✓						
American peregrine falcon											✓						
Burrowing Owl													✓				✓
Northern harrier													✓	✓			✓
Tri-colored blackbird													✓				
Western bluebird														✓			
Ferruginous hawk																	✓
Golden eagle																	✓
<b>Mammals</b>																	
Southern mule deer							✓										

# CHAPTER 8

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## Financial Summary



**El Capitan Preserve is a County Preserve within the MSCP Subarea Plan boundaries.**

The County is responsible for funding acquisition, management and monitoring of lands within the MSCP Subarea Plan. The costs associated with these activities may be funded through local and regional sources. The County primarily uses General Fund monies to acquire land or leverage funding to acquire additional preserve lands. Additionally, the County Board of Supervisors annually appropriates funding for ongoing management and monitoring efforts. Management and monitoring efforts for conveyed lands in the Otay Ranch Preserve, which are jointly owned and managed by the County and the City of Chula Vista, are funded through Community Facilities District 97-2 administered by the City of Chula Vista. Lastly, the County has sought additional funding through various grant programs such as those offered through the SANDAG *TransNet* EMP.

### 8.1 County Contribution

The Board of Supervisors allocates funding for ongoing management and monitoring efforts on 42,000 acres within the MSCP Subarea, and draft North County MSCP and proposed East County MSCP Plan Areas, approximately 23,000 acres of which were acquired since the MSCP Subarea Plan was adopted.

The cost for MSCP management and maintenance are intertwined in the DPR operating budget. The County spends approximately \$170 per acre to staff, manage, monitor and maintain its open space lands. In this reporting period, approximately \$7.1 million was spent to successfully manage and maintain the County's MSCP open space lands. The County is working to track MSCP expenses to reflect on-going stewardship funding. The acreage of the three MSCP Plan Areas include approximately:

- 8,200 acres acquired, managed, or funded within the MSCP Subarea Plan Area.
- 7,400 acres acquired and managed in the draft North County MSCP Plan Area since 2001.
- 7,400 acres acquired and managed in the proposed East County MSCP Plan Areas since 2001.
- The original, baseline 19,000 acres of open space owned and managed by the County upon MSCP Subarea Plan adoption, approximately 5,500 acres of which is in the MSCP Subarea Plan Area.

As in years past, the County Board of Supervisors appropriated \$10 million for acquisition of open space throughout the adopted Subarea, draft North County MSCP Plan Area, and proposed East County MSCP Plan Area. However, for Fiscal Years 2018-2019 and 2019-2020, \$2.5 million of the funding was shifted from acquisition to management and monitoring of the County Preserves each fiscal year. These funds were used to create staff positions dedicated solely to implementing the MSCP, as well as hiring County Rangers to manage the open space lands. In Fiscal Year 2019-2020, \$870,000 was allocated to MSCP monitoring and \$1,630,00 to stewardship. MSCP monitoring allocations funded two staff positions (\$260,000) and implementation of monitoring activities (\$610,000). MSCP monitoring activities included those tasks detailed in Chapter 7, *Preserve Monitoring and Research*. MSCP stewardship allocations funded 13 staff positions (\$960,000), implementation of stewardship activities (\$600,000), and capital costs ([\$70,000] e.g., public access controls such as fences and gates). Stewardship activities include those tasks detailed in Chapter 6, *Preserve Management*.

During the reporting period, there were 567 acres of new acquisitions added to the County Preserves (**Appendix A**). New open space lands were added to Ramona Grasslands (121 acres), Dictionary Hill (2 acres) and Sycamore Canyon and Goodan Ranch (20 acres). Two new preserves, Skyline Preserve (262 acres) and Iron Mountain Preserve (162 acres), were established. Nearly \$3 million of MSCP funds were used to purchase these properties. An additional \$666,000 of grant funding was leveraged. Since 1998, the County has invested over \$48 million which leveraged over \$35 million of other funding to acquire 8,189 acres in the MSCP Subarea Plan, including 556 acres owned by County partners.

In addition to the 42,000 acres of County-owned open space lands, the County and the City of Chula Vista jointly own approximately 2,800 acres of the 3,500 acres that have been conveyed to the Otay Ranch Preserve, with the City of Chula Vista exclusively owning the remaining 700 acres.

## 8.2 Otay Ranch Preserve Community Facility District 97-2

Community Facility District 97-2 funds, administered by the City of Chula Vista, are used for managing and monitoring the Otay Ranch Preserve. The approved budget for FY2018-2019 is \$600,000 for preserve monitoring, operations, and maintenance. Preserve monitoring includes scheduled surveys for various

species by parcel, focused rare plant surveys, baseline surveys for newly acquired properties, land stewardship, meetings and on-going coordination, and reporting. Operations and maintenance include access control and invasive species treatment activities.

### **8.3 *TransNet* Funding**

SANDAG is a regional transportation agency responsible for administering *TransNet* EMP funds collected as a local half-cent sales tax for transportation improvements. The vote to extend the *TransNet* tax in 2004 included \$850 million to fund land acquisition, land management, and species monitoring of mitigation lands for local and regional transportation projects. As of June 2018, the \$850 million *TransNet* EMP has supported the acquisition of 40 properties throughout the region, totaling more than 8,780 acres.<sup>23</sup> As of May 2015, SANDAG had expended more than \$21 million to manage and monitor the regional habitat Preserve system. The County has received almost \$2 million of management and monitoring grants from 2006 through 2019.

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<sup>23</sup> <http://www.keepsandiegomoving.com/EMP/EMP-management-monitoring.aspx>

## CHAPTER 9

### Program Administration

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Spring blooms at Sycamore Canyon Preserve.

#### 9.1 MSCP Coordination Efforts

MSCP Subarea Plan IA Section 14.0 requires coordination with the Wildlife Agencies. Coordination meetings are scheduled regularly between the County and the Wildlife Agencies. Coordination also occurs regularly with regional technical groups, other jurisdictions, stakeholders, and the public. The County continues to actively participate in regularly scheduled MSCP group meetings including the SANDAG *TransNet* EMP Working Group, SDMMMP Working Group, MSCP Annual Workshop, Quarterly Acquisitions coordination meetings, South County Land Managers Working Group, San Dieguito River Park Joint Powers Authority, SDRC, the Tijuana River Valley Recovery Team, the

Tijuana River Water Quality Improvement Plan Working Group, the Tijuana River National Estuarine Research Reserve Advisory Council, the Mission Trails Regional Park Task Force, the Otay Ranch POM Executive/Policy Committees and Joint Staff, the Otay Valley Regional Park Executive/Policy Committees and Joint Staff, the Otay Valley Regional Park citizens advisory committee, California Habitat Conservation Plan Coalition, and the United States Border Management Task Force Group. The various MSCP group meetings consist of members from USFWS, CDFW, BLM, local/governmental participating agencies, private stakeholders, and members of the general public. The primary objectives of these meetings are to discuss land acquisitions, management, monitoring methodologies, conservation techniques, and regional coordination. These meetings provide meaningful educational information and create public awareness regarding the importance of habitat conservation and how it adds to quality of life.

MSCP Subarea Plan implementation also requires coordination among County departments. Regularly scheduled internal meetings regarding MSCP topics are held to facilitate and ensure consistency in implementing the MSCP Subarea Plan. The DPR, PDS, Department of Public Works (DPW), and Department of General Services (DGS) MSCP staff meet regularly to discuss issues and exchange ideas.

## **9.2 MSCP Subarea Plan Updates**

The following discussion summarizes work completed on the proposed amendments and projects processed with Wildlife Agency staff concurrence during this reporting period.

### **Quino Checkerspot Butterfly Amendment**

In 2019, the County continued work to add the federally endangered Quino checkerspot butterfly to the list of species covered by the MSCP Subarea Plan. Research was conducted on adaptive management, changed circumstances, unforeseen circumstances, and mitigation. Work will continue in 2020.

### **MSCP Amendments**

In 2019, there were two proposed Minor or Major amendments to the MSCP Subarea Plan discussed with the Wildlife Agencies: Otay Ranch Village 14 and Planning Areas 16/19, and International Industrial Park. The County finalizes amendments upon concurrence from the Wildlife Agencies and when amendment conditions are satisfied.

Concurrence for the OMC Tentative Parcel Map 21140 Minor Amendment was granted by the Wildlife Agencies in a letter dated September 7, 2018. The project was conditionally approved by the County on June 7, 2019. Once the applicant fulfills their conditions of approval, the Minor Amendment will be reflected in the MSCP Subarea Plan.

### **MSCP Map Update**

The maps associated with the MSCP Subarea Plan were originally adopted by the County Board of Supervisors on October 22, 1997. The maps have been updated through the years to reflect changes in designations for Major and/or Minor Amendment areas to either "take authorized" or "preserve" designations. There were no map updates processed in 2019.

Discussions are on-going regarding the appropriate designation for areas within Otay Ranch Village 14 and Planning Areas 16/19, and International Industrial Park.

## CHAPTER 10

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Vinje, Jessie, Botanist/Biologist, Conservation Biology Institute, written communication with the County of San Diego Department of Parks and Recreation, October 11, 2019.

# CHAPTER 11

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## List of Preparers

### County of San Diego

#### Department of Parks and Recreation

Ashley Dulaney

Beth Principe

Brandon Schroeder

Brian Albright

Caroline Bartolome

Dave Knopp

Deborah Mosely

James Yamaguchi

Jason Hemmens

Jennifer Price

Mary Niez

Matt Bohan

Matt Sanford

Renee Hilton

#### Planning & Development Services

Autumn Viglione

Chelsea Oakes

Eric Lardy

Javier Ramos

Melanie Casey

Michelle Fehrensen

**Department of Public Works**

Leann Carmichael

Sue Waters

Tom Duffy

**City of Chula Vista**

Cheryl Goddard

**U.S. Fish and Wildlife Service**

Susan Wynn

**California Department of Fish and Wildlife**

David Mayer

Holly Smit-Kicklighter

**Environmental Science Associates**

Terah Donovan

## **APPENDIX A**

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### County Tracked Acquisitions Since 1998

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		Funding Source
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	
<b>1998</b>								
Tijuana River Valley, Arietta			39	39	\$ 478,000		\$ 478,000	State
Tijuana River Valley, Calmat Option I			164	164	\$ 1,225,272		\$ 1,225,272	State, City of San Diego
Tijuana River Valley, West/Dymott			40	40	\$ 410,000		\$ 410,000	State
<b>1999</b>								
Tijuana River Valley, Calmat Option Final			28	28	\$ 208,837		\$ 208,837	State
Lakeside, Arabo		9		9	\$ 160,000	\$ 80,000	\$ 80,000	County, State, Federal
Lakeside, Ham		48		48	\$ 800,000	\$ 400,000	\$ 400,000	County, State, Federal
Lakeside, HJMD		33		33	\$ 490,000	\$ 245,000	\$ 245,000	County, State, Federal
Lakeside, Yunis		13		13	\$ 270,000	\$ 135,000	\$ 135,000	County, State, Federal
Lusardi Creek, Rancho Vista		98		98	\$ 1,845,500	\$ 922,750	\$ 922,750	County, State, Federal
<b>2000</b>								
Lusardi Creek, Santa Fe Views		97		97	\$ 1,976,000	\$ 988,000	\$ 988,000	County, State
Hollenbeck Canyon, L&B Daley Pres, Ph I		290		290	\$ 1,000,000	\$ 1,000,000		County
Hollenbeck Canyon, L&B Daley Pres, Ph II		291		291	\$ 1,000,000	\$ 1,000,000		County
Lakeside, United Brokers		8		8	\$ 153,000	\$ 76,500	\$ 76,500	County, State

Acquisition Year Area and Property Name	Acres Acquired			Total	Cost		Funding	
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista		Land Cost	County Funds	Non County Funds	Funding Source
Tijuana River Valley, Piper/Shelton			142	142	\$ 1,752,750	\$ 500,000	\$ 1,252,750	County, State
Wright's Field, Alpine School District	41	0		41	\$ 425,000	\$ 175,000	\$ 250,000	County, State, Federal
Wright's Field, Union Bank	40	0		40	\$ 356,633	\$ 148,196	\$ 208,437	County, State
<b>2001</b>								
Lakeside, Pavel		11		11	\$ 200,000	\$ 100,000	\$ 100,000	County, State
Otay River Valley Park, Malcolm			1	1	\$ 46,000		\$ 46,000	County, Developer
Otay River Valley Park, O Brien			8	8	\$ 205,500	\$ 102,776	\$ 102,724	Developer negotiated by County
<b>2002</b>								
Lakeside, Shuler		59		59	\$ 425,000		\$ 425,000	State, Federal
Tijuana River Valley, Hanson			74	74	\$ 1,387,500	\$ 1,387,500		County
Tijuana River Valley, Skibbe			10	10	\$ 485,000		\$ 485,000	State, City (Federal)
Wright's Field, Findel Ranch	29			29	\$ 500,000	\$ 500,000		County
Iron Mountain, Ramona Serena/ Barnett Ranch		665		665	\$ 4,440,000	\$ 2,440,000	\$ 2,000,000	County, State, Federal
<b>2003</b>								
Otay River Valley Park, Hirlinger- Baker		0	8	8	\$ 95,000	\$ 95,000		State, Federal
Iron Mountain, Berkeley Hering		59		59	\$ 457,200	\$ 62,200	\$ 395,000	County, State, Federal

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		Funding Source
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	
Iron Mountain, Boulder Oaks		1271		1271	\$ 4,410,000	\$ 1,102,500	\$ 3,307,500	County, State, Federal
Iron Mountain, Reams Thomsen		46		46	\$ 180,000		\$ 180,000	County, State, Federal
Sycamore Canyon Preserve (I- 122)		28		28				County, I-122
East Otay Mesa, Furby North			79	79	\$ 1,296,600	\$ 1,296,600		County
Otay River Valley Park, Munson Otay			19	19	\$ 13,300		\$ 13,300	State
Tijuana River Valley, Horwin			21	21	\$ 365,000		\$ 365,000	State
Tijuana River Valley, Nelson Sloan			73	73	\$ 699,782		\$ 699,782	State
Wright's Field, Apollo 120 acres	120			120	\$ 1,800,000	\$ 800,000	\$ 1,000,000	County, State
<b>2004</b>								
Escondido Creek, Polo (110 acs, but 4 acs in NC)		106		106	\$ 1,700,000	\$ 1,374,000	\$ 326,000	County, I-122 (8 acs), State
Sycamore Canyon Preserve (I- 122)		63		63				County, I-122
Otay River Valley Park, Georgiana Smith		89		89	\$ 2,611,000		\$ 2,611,000	State
Otay River Valley Park, Greg Smith		98		98	\$ 3,243,000		\$ 3,243,000	State
<b>2005</b>								

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		Funding Source
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	
Stoneridge (fka Harbison), Bahde Donation		20		20				County acquired donation (interdept) post MSCP creation
Otay River Valley Park, Grindle		8		8	\$ 138,000	\$ 46,800	\$ 91,200	County, State
Otay River Valley Park, Kimball		13		13	\$ 196,000		\$ 196,000	State
Otay River Valley Park, Lanzetta			6	6	\$ 125,000		\$ 125,000	State
Tijuana River Valley, Dairy Mart Ponds			60	60				County had managed for State, State formalized by transfer
<b>2006</b>								
Otay River Valley Park, Sandoval (1 & 2)			13	13	\$ 700,000		\$ 700,000	State
Otay River Valley Park, Otay Land Company			114	114	\$ 1,490,000		\$ 1,490,000	State
Pitchford (MLJ at Stelzer)		3		3	\$ 75,000	\$ 75,000		County
Sheriff's East Mesa Buffer		9		9	\$ 45,000	\$ 45,000		County
<b>2007</b>								
Greenfield Transfer Mitig 17 acs	17			17	\$1	\$1		Olivenhain Wtr Mitigation Mgt
<b>2008</b>								
Del Dios Highlands (Greer)		10		10	\$ 675,000	\$ 675,000		County

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	Funding Source
Sycamore Canyon/Goodan Ranch (Armstrong)		20		20	\$ 160,000	\$ 160,000		County
Ramona Grasslands (Gildred Portion in SC MSCP)		463		463	\$ 3,630,000	\$ 412,500	\$ 3,217,500	County, State, Federal
2009								
Christopherhill TET dedication - Dedication was 69 acres in 2009 with all but 5 acs baseline then; Now 5 acs approved as Preserve								County accepted in bankruptcy settlement
2010								
Del Dios Highlands (Helix- Lambron)		153		153	\$ 4,000,000	\$ 1,400,000	\$ 2,600,000	County, Federal
Sycamore Canyon southern additions		150		150	\$ 1,310,000	\$ 1,310,000		County
Lakeside Hansen Pond (Endangered Habitats Conservancy)	141			141	\$ 4,000,000	\$ 1,000,000	\$ 3,000,000	County, State, EHC
2011								
Stoneridge Preserve - Worley		227		227	\$ 2,650,000	\$ 2,650,000		County
Sycamore Canyon/Goodan Ranch		112		112	\$ 2,820,000	\$ 2,620,000	\$ 200,000	County, State
Mit Land Policy Deduction- Stelzer, Lakeside Linkage		-1		-1				
2012								

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	Funding Source
San Diego River Foundation El Capitan	158			158	\$ 205,000	\$ 200,000	\$ 5,000	County, Non Profit
Boulder Oaks -Salvation Army		748		748	\$ 6,555,000	\$ 6,555,000		County
Mit Lnd Policy Deduction - L B Daley		-2		-2				
2013								
Oakoasis-Sophisticated Investments		37		37	\$ 72,000	\$72,000		County
Sycamore Canyon/Goodan Ranch (South-Barratt American)		18		18	\$ 180,000	\$ 180,000		County
Otay River Valley Park, Reed/Paintball City MHPA	8			8	\$ 262,500	\$ 262,500		General Fund
Lusardi Creek, Fingal		31		31	\$ 1,360,000	\$ 1,160,000	\$ 200,000	County, State
Mit Lnd Policy Deduction - Tijuana River Valley			-3	-3				
2014								
Stoneridge Preserve (tax default)		1		1	\$ 9,563	\$ 9,563		County
Mit Lnd Policy Deduction - L B Daley		0		-0.37				
2015								
Flinn Springs MSCP		33		33	\$ 400,000	\$ 400,000		County
Sycamore Canyon/Goodan		100		100	\$ 810,000	\$ 610,000	\$ 200,000	County, State
Sycamore Canyon/Goodan		40		40	\$ 541,000	\$ 541,000		County

Acquisition Year Area and Property Name	Acres Acquired			Cost		Funding		
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista	Total	Land Cost	County Funds	Non County Funds	Funding Source
Mit Lnd Policy Deduction - L B Daley		-8		-8				
2016								
S. Vicente Connection (Navarro)		23		23	\$ 224,000	\$ 224,000		County
Mit Lnd Policy Deduction - Tijuana River Valley			-10	-10				
2017								
S. Vicente Connection (Moore-Moffet)		69		69	\$ 627,670	\$ 627,670		County
Dictionary Hill - approved in 2017 prior to acquisition to be included in Preserve		173		173	\$ 5,467,000	\$ 5,467,000		County
2018								
S. Vicente (Uridel)		19		19	\$ 223,000	\$111,500	\$ 111,500	County/State
Lakeside Linkage (Centex)		75		75	\$ 2,250,000	\$ 2,250,000		County
Peutz Valley Preserve (Helix Lnd)		255		255	\$ 1,651,000	\$ 1,451,000	\$ 200,000	County/State
2019								
Ramona Grasslands (Carroll)		121		121	\$ 950,000	\$ 950,000		County
Skyline Preserve		262		262	\$ 1,068,000	\$ 602,080	\$ 465,920	County/SANDAG
Sycamore Goodan (Miera)		20		20	\$ 220,000	\$ 220,000		County
Iron Mountain Preserve		162		162	\$ 1,280,000	\$ 1,080,000	\$ 200,000	County/State
Dictionary Hill (North)		1		1	\$ 40,000	\$ 40,000		County
Dictionary Hill (Inholding)		1		1	\$ 30,000	\$ 30,000		County

Acquisition Year Area and Property Name	Acres Acquired			Total	Cost		Funding	
	Owned By Local/Non Profits	Preserve / Hardline Owned By County	MHPA & Chula Vista		Land Cost	County Funds	Non County Funds	Funding Source
<b>Total</b>	<b>556</b>	<b>6,748</b>	<b>885</b>	<b>8,189</b>	<b>\$ 83,550,608</b>	<b>\$ 48,368,636</b>	<b>\$ 35,181,972</b>	

## **APPENDIX B**

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### Wildlife Agency Tracked Acquisitions

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
10	FDIC (Rancho San Diego)	1167	1144	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1996	None
10a	FDIC (Rancho San Diego)	475	468	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1996	None
10b	FDIC (Rancho San Diego)	28	28	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1996	None
10c	FDIC (Rancho San Diego)	129	129	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1996	None
10d	FDIC (Rancho San Diego)	26	0	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1996	None
240	National Fish and Wildlife Foundation (Smith "V parcel")	278	278	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1997	None
101	Emerald Properties Corp (N. San Miguel)	500	499	217	216	43%	\$1,300	283	283	57%	\$1,700	\$850	\$3,000	1997	Prop 117 and LWCF
101a	Emerald Properties Corp (N. San Miguel)	1188	1176	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1997	None
200	TPL (Las Montanas I)	276	112	0	0	0%	\$0	276	112	100%	\$1,800	\$0	\$1,800	1998	LWCF

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
222	Singing Hills (Duncan)	79	76	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1998	None
137	Hamel (I)	45	2	0	0	0%	\$0	45	2	100%	\$211	\$0	\$211	1998	LWCF
237a	Mozaffarian	10	10	0	0	0%	\$0	10	10	100%	\$40	\$0	\$40	1998	LWCF
237b	Mozaffarian	5	5	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1998	LWCF
92	Doenges, Robert S. & William S.	87	85	0	0	0%	\$0	87	85	100%	\$446	\$0	\$446	1998	LWCF
199	Liker	8	8	0	0	0%	\$0	8	8	100%	\$150	\$0	\$150	1998	LWCF
200a	TPL (Las Montanas II)	661	279	0	0	0%	\$0	661	279	100%	\$1,500	\$0	\$1,500	1998	LWCF
200b	TPL (McGinty Ranch I)	582	582	0	0	0%	\$0	582	582	100%	\$1,675	\$0	\$1,675	1999	LWCF
137a	Hamel (II)	79	0	0	0	0%	\$0	79	0	100%	\$319	\$0	\$319	1999	LWCF
1	Department of Treasury (Gomez)	88	26	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1999	None
200c	TPL (McGinty Ranch II)	112	112	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	1999	None
89	Desert Pacific Council/Boy Scouts	83	0	0	0	0%	\$0	83	0	100%	\$393	\$0	\$393	1999	LWCF
23	Beitmann	5	5	0	0	0%	\$0	5	5	100%	\$28	\$0	\$28	1999	LWCF
86	DeGuzman	37	0	0	0	0%	\$0	37	0	100%	\$180	\$0	\$180	1999	LWCF

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
84	DeGuzman	34	0	0	0	0%	\$0	34	0	100%	\$153	\$0	\$153	1999	LWCF
85	DeGuzman	41	0	0	0	0%	\$0	41	0	100%	\$180	\$0	\$180	1999	LWCF
132	Grant, Kenneth Carlton	14	10	0	0	0%	\$0	14	10	100%	\$140	\$0	\$140	2000	LWCF
164	Immenschuh	641	640	0	0	0%	\$0	641	640	100%	\$1,760	\$0	\$1,760	2000	LWCF
288	Rice	253	0	0	0	0%	\$0	253	0	100%	\$1,140	\$0	\$1,140	2000	LWCF
288a	Rice	1	0	0	0	0%	\$0	1	0	100%	\$3	\$0	\$3	2000	LWCF
200f	TPL (Shinohara I)	85	78	0	0	0%	\$0	85	78	100%	\$2,700	\$0	\$2,700	2001	LWCF
288b	Rice	286	6	0	0	0%	\$0	286	6	100%	\$1,332	\$0	\$1,332	2001	LWCF
15	Clarke	38	38	0	0	0%	\$0	38	38	100%	\$170	\$0	\$170	2001	LWCF
200g	TPL (Shinohara II)	40	34	0	0	0%	\$0	40	34	100%	\$1,381	\$0	\$1,381	2002	LWCF
12	Sampo	69	18	0	0	0%	\$0	69	18	100%	\$280	\$0	\$280	2002	LWCF
14	Mills	19	19	0	0	0%	\$0	19	19	100%	\$115	\$0	\$115	2002	LWCF
200h	TPL (Shinohara III)	369	368	0	0	0%	\$0	369	368	100%	\$4,540	\$0	\$4,540	2004	LWCF
16	Baker Trust	19	0	0	0	0%	\$0	19	0	100%	\$100	\$0	\$100	2004	LWCF
16a	Baker Trust	1	1	0	0	0%	\$0	1	1	100%	\$5	\$0	\$5	2004	LWCF
13	Asistoisdmr Holdings	37	0	0	0	0%	\$0	37	0	100%	\$260	\$0	\$260	2004	LWCF
315	Chula Vista 186 LLC	185	0	0	0	0%	\$0	185	0	100%	\$1,302	\$0	\$1,302	2004	LWCF

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
180	King	5	0	0	0	0%	\$0	5	0	100%	\$175	\$0	\$175	2005	LWCF
295	Roberts	10	0	0	0	0%	\$0	10	0	100%	\$225	\$0	\$225	2005	LWCF
230	Mitchell	3	0	0	0	0%	\$0	3	0	100%	\$250	\$0	\$250	2005	LWCF
3a	County of San Diego	22	22	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2005	None
296	Robinson	10	0	0	0	0%	\$0	10	0	100%	\$55	\$0	\$55	2005	LWCF
175	Kelly, etal	5	0	0	0	0%	\$0	5	0	100%	\$205	\$0	\$205	2006	LWCF
103h	TET	53	0	0	0	0%	\$0	53	0	100%	\$225	\$0	\$225	2006	LWCF
363	Brown	41	41	0	0	0%	\$0	41	41	100%	\$50	\$0	\$50	2007	LWCF
396	Wilhite	41	41	0	0	0%	\$0	41	41	100%	\$480	\$0	\$480	2007	LWCF
297	Catholic Diocese	27	0	0	0	0%	\$0	27	0	100%	\$150	\$0	\$150	2009	LWCF
103a	TET	338	338	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2009	None
357	Jones	20	0	0	0	0%	\$0	20	0	100%	\$230	\$0	\$230	2010	LWCF
272	TET	261	260	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2010	None
176	Kennerly	10	0	0	0	0%	\$0	10	0	100%	\$80	\$0	\$80	2011	LWCF
302	Salerno	10	0	0	0	0%	\$0	10	0	100%	\$80	\$0	\$80	2011	LWCF
251	Nauman	2	0	0	0	0%	\$0	2	0	100%	\$78	\$0	\$78	2011	LWCF
319	Sevel	1	0	0	0	0%	\$0	1	0	100%	\$33	\$0	\$33	2011	LWCF
104	Evans	2	1	0	0	0%	\$0	2	1	100%	\$87	\$0	\$87	2011	LWCF
411	Lauss	2	0	0	0	0%	\$0	2	0	100%	\$52	\$0	\$52	2011	LWCF
266	Peppard	10	0	0	0	0%	\$0	0	0	0%	\$0	\$0	\$250	2012	Other

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
71	The Nature Conservancy	1858	1309	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2012	None
127	Cuevas	10	0	0	0	0%	\$0	10	0	100%	\$235	\$0	\$235	2012	LWCF
102b	Trimark	167	167	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2013	None
149	Heuschele	6	0	0	0	0%	\$0	6	0	100%	\$35	\$0	\$35	2013	LWCF
194	Lee	6	0	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2013	None
388a	Bella Lago	10	10	0	0	0%	\$0	0	0	100%	\$0	\$0	\$0	2014	None
326	Bols	41	9	0	0	0%	\$0	0	0	0%	\$0	\$0	\$220	2014	Other
238	Spring Valley Ranch	43	0	0	0	0%	\$0	43	0	100%	\$435	\$0	\$435	2015	LWCF
503	Pio Pico	82	0	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2016	None
98	Beaver Hollow	120	0	0	0	0%	\$0	120	0	100%	\$975	\$0	\$975	2016	LWCF
367	Trachtenberg	4	0	0	0	0%	\$0	4	0	100%	\$70	\$0	\$70	2016	LWCF
290	Riedman	41	0	0	0	0%	\$0	41	0	100%	\$285	\$0	\$285	2016	LWCF
312	TNC Schooler	4	4	0	0	0%	\$0	4	4	100%	\$45	\$0	\$45	2016	LWCF
2a	CALTRANS (River Splinter)	21	20	0	0	0%	\$0	0	0	0%	\$0	\$185	\$0	2017	None
2	CALTRANS (Go-Cart)	2	1	0	0	0%	\$0	0	0	0%	\$0	\$375	\$0	2017	None
327	Sickles	10	1	0	0	0%	\$0	10	1	100%	\$235	\$0	\$235	2017	LWCF
114	North	1	0	0	0	0%	\$0	1.00	0	100%	\$7	\$0	\$7	2017	LWCF

TABLE B-1. WILDLIFE AGENCY TRACKED ACQUISITIONS— U.S. FISH AND WILDLIFE SERVICE

USFWS Acquisitions <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Track No	Property Name	Total Acres	Total Acres in MSCP MHPA	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP MHPA	% Contribution	Cost (000s)				
2e	CALTRANS (Millar Ranch Rd)	19	0	0	0	0%	\$0	0	0	0%	\$0	\$190	\$0	2018	None
192	Alshadhir	19	8	0	0	0%	\$0	19	8	100%	\$188	\$0	\$188	2018	LWCF
55	Chow	22	3	0	0	0%	\$0	22	3	100%	\$155	\$0	\$155	2018	LWCF
2b	CALTRANS (Bonita Meadows)	107	6	0	0	0%	\$0	0	0	0%	\$0	\$1,140	\$0	2018	None
2c	CALTRANS (Bonita Meadows)	127	119	0	0	0%	\$0	0	0	0%	\$0	\$1,140	\$0	2018	None
2d	CALTRANS (94/54 Corridor)	52	1	0	0	0%	\$0	0	0	0%	\$0	\$510	\$0	2018	None
505, 505a	Journey Partners	58	47	0	0	0%	\$0	55	44	100%	\$1,730	\$0	\$1,730	2019	LWCF
249	Offutt	1	0	0	0	0%	\$0	1	1	100%	\$10	\$0	\$10	2019	TSDf
<b>Total</b>		<b>11781</b>	<b>8642</b>	<b>217</b>	<b>216</b>		<b>\$1,300</b>	<b>4869</b>	<b>2721</b>		<b>\$30,861</b>	<b>\$4,390</b>	<b>\$32,631</b>		

<sup>a</sup> All acquisitions are part of the San Diego National Wildlife Refuge. USFWS is the land manager and fee title owner of all acquisitions in table.

TABLE B-2. WILDLIFE AGENCY TRACKED ACQUISITIONS – BUREAU OF LAND MANAGEMENT

CaseNum	Property Name	Total Acres	Agency's Prorated Acres Purchased	Acres in MHPA only	Prorated acres in MHPA only	Acres in MHPA Amendment Area	Prorated acres in MHPA Amendment Area	Acres in MSCP MHPA (both)	Prorated Acres in MSCP MHPA (both)	Agency % Contribution	Agency's Total Cost (000s)	Total Cost of Property (000s)	Fund Authority	Year Acquired
CACA037104	Helix/Lambron	381	381	381	381	0	0	381	381	100%	\$1,090.0	\$1,090.0	LWCF	1997
CACA039258	TPL (Sycamore Canyon)	354	354	167	167	23	23	190	190	100%	\$750.0	\$750.0	LWCF	1998
CACA040203	Anderson	126	126	1	1	0	0	1	1	100%	\$250.0	\$250.0	LWCF	2000
CACA040237	TPL (Rancho Jamul)	1,093	1093	253	253	7	7	260	260	100%	\$2,000.0	\$2,000.0	LWCF	1999
CACA040314	TET (Marron Valley)	332	332	332	332	0	0	332	332	100%	\$1,021.0	\$1,021.0	LWCF	1999
CACA041430	Anderson/Hendron	31	31	0	0	0	0	0	0	100%	\$60.0	\$60.0	LWCF	2000
CACA041516	TET	33	33	33	33	0	0	33	33	100%	\$80.0	\$80.0	LWCF	2000
CACA042687	TPL (Clark Ranch)	947	947	4	4	0	0	4	4	100%	\$3,867.0	\$3,867.0	LWCF	2001
CACA043168	Fetters	162	162	0	0	162	162	162	162	100%	\$325.1	\$325.1	LWCF	2002
CACA044234	Cain	461	461	23	23	437	437	461	461	100%	\$1,320.0	\$1,320.0	LWCF	2002
CACA045193	Brailsford/Keller	42	42	1	1	0	0	1	1	100%	\$140.0	\$140.0	LWCF	2004
CACA045308	Klein	118	118	1	1	0	0	1	1	100%	\$470.0	\$470.0	LWCF	2004
CACA046156	TPL	359	359	4	4	0	0	4	4	100%	\$1,436.0	\$1,436.0	LWCF	2004
CACA050366	TET (O'Neal Cnyn) Donation	167	0	0	0	167	0	167	0	0.00%	\$0.0	\$0.0	None	2009
		<b>4,606</b>	<b>4,439</b>	<b>1,200</b>	<b>1,200</b>	<b>796</b>	<b>629</b>	<b>1,997</b>	<b>1,830</b>		<b>\$12,809.1</b>	<b>\$12,809.1</b>		

TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS— CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
Boden Canyon Ecological Reserve															
821737	Boden Canyon (Phase I)	572	506	524	463	92%	\$2,172	0	0	0%	\$0	\$442	\$2,372	1998	Prop 117
821826	Boden Canyon (Expansion #1)	604	548	558	506	92%	\$2,180	0	0	0%	\$0	\$430	\$2,360	1999	Prop 117
821858	Boden Canyon (Expansion #2)	67	64	67	64	100%	\$210	0	0	0%	\$0	\$105	\$210	1999	Prop 117
Canada de San Vicente															
822300	Monte Vista Ranch (Iron Mountain, Expansion #3)	392	390	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2008	Mitigation
822399	Monte Vista Ranch	4,026	1,558	2,453	949	61%	\$9,700	1,573	609	39%	\$6,221	\$0	\$15,921	2009	Prop 12 and Section 6
822506	Monte Vista Ranch (Iron Mountain, Expansion #4)	314	11	0	0	0%	\$0	314	11	100%	\$2,100	\$300	\$2,100	2010	Section 6
822883	Bonfils	266	9	93	3	35%	\$158	173	6	65%	\$293	\$0	\$450	2014	Prop 117 and Section 6
Crestridge Ecological Reserve															
821774	Crestridge	2,372	1,958	857	707	36%	\$3,506	0	0	0%	\$0	\$1,889	\$3,506	1999	Prop 117
821964	Crestridge Expansion #1	256	256	0	0	0%	\$0	0	0	0%	\$0	\$0	\$2,258	2002	Mitigation

TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS— CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
822003	Rancho Montana Unit Pilgrim Mitigation Bank (CALTRANS)	125	125	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2002	N/A
Hollenbeck Canyon Wildlife Area															
821913	Hollenbeck Canyon (Expansion #1 - Original CDFG Segment)	3241	945	3,170	925	98%	\$10,997	0	0	0%	\$0	\$0	\$11,240	2001	General Fund & Prop12
822132	Hollenbeck Canyon (Expansion #2 - Honey Springs Ranch)	2012	82	2,012	82	100%	\$7,420	0	0	0%	\$0	\$0	\$7,420	2004	Prop 12
822257	Hollenbeck Canyon (Expansion #3)	304	0	50	0	17%	\$205	254	0	83%	\$1,031	\$0	\$1,235	2006	Prop 12 and Section 6
822632	Hollenbeck Canyon Wildlife Area, Expansion #4	577	34	178	10	31%	\$693	393	23	68%	\$1,532	\$87	\$2,250	2011	Prop 40 and Section 6
822907	Hollenbeck Canyon Wildlife Area, Expansion #5	381	79	88	18	23%	\$361	0	0	0%	\$0	\$0	\$1,564	2015	Prop 117
822908	Hollenbeck Canyon Wildlife Area, Expansion #6	187	166	66	58	35%	\$253	121	108	65%	\$467	\$0	\$720	2016	Prop 117

TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS— CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
12-2016 rptd "pending"; 12-2017 rptd 822915	Hollenbeck Canyon Wildlife Area, Expansion #7 HabiTrak 17-123	27	0	10	0	35%	\$84	18	0	65%	\$156	\$0	\$240	2016	Prop 117
HabiTrak 17-124; Hist# 822923	Hollenbeck Canyon Wildlife Area APNs 59710009, 59710011, 59710012 11/7/2016	113													
Lake Hodges Ecological Reserve															
821996	Pilgrim Mitigation Parcels (CALTRANS)	19	19	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2002	N/A
McGinty Mountain Ecological Reserve															
821486	McGinty Mountain Expansion #2 - Willow Glen	200	200	110	110	55%	\$357	0	0	0%	\$0	\$583	\$647	1996	Prop 70
Otay Mountain Ecological Reserve															
821509	Otay Mt North	211	211	211	211	100%	\$2,880	0	0	0%	\$0	\$0	\$2,880	1996	Prop 117 and Prop 70
822061	Otay Village 15	1,037	1,037	392	392	38%	\$7,376	436	436	42%	\$8,200	\$0	\$19,500	2004	Prop 12 and

**TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS— CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
Section 6															
Rancho Jamul Ecological Reserve															
821560	Rancho Jamul (Phase 1)	2,268	1,532	627	423	28%	\$1,050	1,641	1,108	72%	\$2,750	\$0	\$3,800	1997	Prop 117 and Section 6
821809	Rancho Jamul (Expansion #1)	1,398	986	466	329	33%	\$800	932	657	67%	\$1,600	\$800	\$2,400	1998	Natural Resources Infrastructure Fund and Prop 117
821962	Rancho Jamul ER (Expansion #2 - HQ)	40	4	40	4	100%	\$2,000	0	0	0%	\$0	\$0	\$2,000	2001	Prop 12
822037	Rancho Jamul Proctor Valley Unit (Villages 14 and 16) <sup>b</sup>	1,463	811	421	233	29%	\$6,475	1,042	577	71%	\$16,025	\$0	\$22,500	2003	Prop 12 and Section 6
	Expansion 4	3	1	0	0	0%	\$0	0	0	0%	\$0	\$0	\$0	2018	Mitigation
822074	Rancho Jamul Expansion #3 (CalMat Quarry)	551	551	551	551	100%	\$6,450	0	0	\$0	\$0	\$0	\$6,450	2004	Prop 12
San Vicente Highlands															
821881		240	240	0	0	0%	\$0	0	0	\$0	\$0	\$803	\$0	2000	N/A

**TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS– CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
	Iron Mountain Wildlife Area - Boys & Girls Club	1,181	1,181	1,181	1,181	100%	\$3,800	0	0	\$0	\$0	\$0	\$3,800	2000	Prop 12
	Briles	7	7	7	7	100%	\$115	0	0	\$0	\$0	\$0	\$115	2018	Prop 117
822584	Environmental Trust Bankruptcy (San Vicente)	0	0	0	0	0%	\$0	0	0	\$0	\$0	\$2,160	\$0	2009	Mitigation
Sycuan Peak Ecological Reserve															
821488	Sycuan Peak (Expansion #1)	122	122	122	122	100%	\$413	0	0	\$0	\$0	\$0	\$413	1996	EEMP
821554	Sycuan Peak (Expansion #2)	297	297	78	78	26%	\$250	0	0	\$0	\$0	\$0	\$950	1997	Prop 117, ISTEPA, EEMP
821740	Sycuan Peak (Expansion #3)	253	252	253	252	100%	\$700	0	0	\$0	\$0	\$123	\$700	1998	Prop 70 and Prop 117
822292	Sycuan Peak (Expansion #4)	601	177	150	44	25%	\$367	451	132	75%	\$1,100	\$0	\$1,467	2006	Prop 12 and Section 6
822900	Sycuan Peak (Expansion #5)	76	69	27	24	35%	\$53	49	45	65%	\$97	\$0	\$150	2015	Prop 117
822909	Sycuan Peak (Expansion #6)	2	2	1	1	35%	\$11	1	1	65%	\$19	\$0	\$30	2016	Prop 117

**TABLE B-3. WILDLIFE AGENCY TRACKED ACQUISITIONS– CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

CDFW Acquisitions in County Subarea Since 1998 <sup>a</sup>				State of California Funded				Federal Government Funded				Total Donated Value (000s)	Total Property Cost (000s)	Year	Funding Source
Parcel History #	Parcel Name	Total Acres	Total Acres in MSCP	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)	Prorated Acres Purchased	Prorated Acres in MSCP	% Contribution	Cost (000s)				
822914	Sycuan Peak (Expansion #7) HabiTrak 17-121	10	0	4	0	35%	\$11	7	0	65%	\$21	\$0	\$32	2016	Prop 117
17-122; Hist# 822920	Sycuan Peak Ecological Reserve APN 52109008 10/25/2016	40													
		<b>25,857</b>	<b>14,430</b>	<b>14,766</b>	<b>7,750</b>		<b>\$71,044</b>	<b>7,406</b>	<b>3,714</b>		<b>\$41,613</b>	<b>\$7,723</b>	<b>\$121,680</b>		

NOTES:

<sup>a</sup> All acquisitions are owned in fee title and managed by California Department of Fish and Wildlife unless otherwise noted.

<sup>b</sup> U.S. Fish and Wildlife Service is the land manager

## **APPENDIX C**

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### Summary of MSCP Gains

### Summary of Project Gains

#### MSCP South San Diego County

MSCP Subarea Plan

From 1/1/2019 To 12/31/2019



*County of San Diego*

Project Tracking #	Project Name	Location	Applicant	APH	Date Cons.	Status	Mgmt Resp.	Conservation Type	Mt. Bank Credits Used	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-012	BP Magaro		Magaro	396-202-12	12/10/2019	Gain	Private	Easement	0.00	5.23	0.00	5.23
19-013	BP McAllister		McAllister	519-312-34	12/10/2019	Gain	Private	Easement	0.00	0.36	0.28	0.65
19-111	DICTIONARY HILL OPEN SPACE PRESERVE		COUNTY OF SAN DIEGO	579-031-16 579-031-18	12/12/2019	Gain	Local	Acquisition	0.00	0.69	0.00	0.69
19-110	DICTIONARY HILL OPEN SPACE PRESERVE		COUNTY OF SAN DIEGO	579-022-03	12/12/2019	Gain	Local	Acquisition	0.00	1.45	0.00	1.45
19-145	ESMT Gonzalez		Gonzalez	600-051-11	12/31/2019	Gain	Private	Easement	0.00	12.29	0.00	12.29
19-143	ESMT Maranatha		Maranatha	267-060-38	12/31/2019	Gain	Private	Easement	0.00	3.11	0.82	3.93
19-144	ESMT Sutter		Sutter	600-051-04	12/31/2019	Gain	Private	Easement	0.00	117.49	0.00	117.49
19-109	IRON MOUNTAIN PRESERVE		COUNTY OF SAN DIEGO	322-021-04 322-021-05	12/12/2019	Gain	Local	Acquisition	0.00	0.00	162.27	162.27
19-114	Journey Partners		USFWS	597-140-10 597-140-12	12/13/2019	Gain	Federal	Acquisition	0.00	10.79	44.47	55.26
19-115	Ofutt		USFWS	585-150-04	12/13/2019	Gain	Federal	Acquisition	0.00	0.00	0.75	0.75
19-106	RAMONA GRASSLANDS PRESERVE		COUNTY OF SAN DIEGO	276-050-29	12/12/2019	Gain	Local	Acquisition	0.00	2.16	119.21	121.37
19-112	Skyline 147		ENDANGERED HABITATS CONSERVANCY	599-041-03 599-042-05	12/13/2019	Gain	Non-Profit	Acquisition	0.00	146.57	0.00	146.57
19-107	SKYLINE PRESERVE		COUNTY OF SAN DIEGO	599-042-06 599-051-19 599-100-16	12/12/2019	Gain	Local	Acquisition	0.00	139.58	122.01	261.59
19-108	SYCAMORE CANYON		COUNTY OF SAN DIEGO	325-060-15 325-060-16	12/12/2019	Gain	Local	Acquisition	0.00	0.00	20.08	20.08
19-001	TM-5405		Kearny	648-071-15	12/10/2019	Gain	Private	Easement	0.00	0.00	4.69	4.69
19-004	TM-5588		LAACO	760-128-54	12/10/2019	Gain	Private	Easement	0.00	0.51	0.00	0.51
19-003	TPM-21054		Shorees	513-073-14	12/10/2019	Gain	Private	Easement	0.00	0.54	4.72	5.26
19-002	TPM-21080		Bongiovanni	399-130-45	12/10/2019	Gain	Private	Easement	0.00	1.84	0.00	1.84
<b>Total for Agency: County of San Diego</b>									<b>0.00</b>	<b>442.60</b>	<b>479.30</b>	<b>921.90</b>

Summary

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## Summary of Project Gains

## MSCP South San Diego County

MSCP Subarea Plan

From 1/1/2019 To 12/31/2019



## County of San Diego

Project Tracking #	Project Name	Location	Applicant	APH	Date Cons.	Status	Mgmt Resp.	Conservation Type	Mt. Bank Credits Used	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: Lake Hodges												
19-143	ESMT Maranatha		Maranatha	267-060-38	12/31/2019	Gain	Private	Easement	0.00	3.11	0.82	3.93
Total for Segment: Lake Hodges									0.00	3.11	0.82	3.93
Segment: North Metro Lakeside Jamul												
19-012	BP Magarro		Magarro	396-202-12	12/10/2019	Gain	Private	Easement	0.00	5.23	0.00	5.23
19-109	IRON MOUNTAIN PRESERVE		COUNTY OF SAN DIEGO	322-021-04 322-021-05	12/12/2019	Gain	Local	Acquisition	0.00	0.00	162.27	162.27
19-106	RAMONA GRASSLANDS PRESERVE		COUNTY OF SAN DIEGO	276-050-29	12/12/2019	Gain	Local	Acquisition	0.00	2.16	119.21	121.37
19-108	SYCAMORE CANYON		COUNTY OF SAN DIEGO	325-060-15 325-060-16	12/12/2019	Gain	Local	Acquisition	0.00	0.00	20.08	20.08
Total for Segment: North Metro Lakeside Jamul									0.00	7.39	301.55	308.94
Segment: South County												
19-114	Journey Partners		USFWS	597-140-10 597-140-12	12/13/2019	Gain	Federal	Acquisition	0.00	10.79	44.47	55.26
19-115	Ofutt		USFWS	585-150-04	12/13/2019	Gain	Federal	Acquisition	0.00	0.00	0.75	0.75
19-001	TM-5405		Kearny	648-071-15	12/10/2019	Gain	Private	Easement	0.00	0.00	4.69	4.69
Total for Segment: South County									0.00	10.79	49.91	60.70
Segment: South Metro Lakeside Jamul												
19-013	BP McAllister		McAllister	519-312-34	12/10/2019	Gain	Private	Easement	0.00	0.36	0.28	0.65
19-111	DICTIONARY HILL OPEN SPACE PRESERVE		COUNTY OF SAN DIEGO	579-031-16 579-031-18	12/12/2019	Gain	Local	Acquisition	0.00	0.69	0.00	0.69
19-110	DICTIONARY HILL OPEN SPACE PRESERVE		COUNTY OF SAN DIEGO	579-022-03	12/12/2019	Gain	Local	Acquisition	0.00	1.45	0.00	1.45
19-145	ESMT Gonzalez		Gonzalez	600-051-11	12/31/2019	Gain	Private	Easement	0.00	12.29	0.00	12.29
19-144	ESMT Sutter		Sutter	600-051-04	12/31/2019	Gain	Private	Easement	0.00	117.49	0.00	117.49

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**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date Cons.	Status	Mgmt Resp.	Conservation Type	Mit. Bank Credits Used	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: South Metro Lakeside Jamul												
19-112	Skyline 147		ENDANGERED HABITATS CONSERVANCY	599-041-03 599-042-05	12/13/2019	Gain	Non-Profit	Acquisition	0.00	146.57	0.00	146.57
19-107	SKYLINE PRESERVE		COUNTY OF SAN DIEGO	599-042-06 599-051-19 599-100-16	12/12/2019	Gain	Local	Acquisition	0.00	139.58	122.01	261.59
19-004	TM-5588		LAACO	760-128-54	12/10/2019	Gain	Private	Easement	0.00	0.51	0.00	0.51
19-003	TPM-21054		Shorees	513-073-14	12/10/2019	Gain	Private	Easement	0.00	0.54	4.72	5.26
19-002	TPM-21080		Bongiovanni	399-130-45	12/10/2019	Gain	Private	Easement	0.00	1.84	0.00	1.84
Total for Segment: South Metro Lakeside Jamul									0.00	421.32	127.02	548.34
<b>Total for Agency: County of San Diego</b>									<b>0.00</b>	<b>442.60</b>	<b>479.30</b>	<b>921.90</b>

By Segment

# **APPENDIX D**

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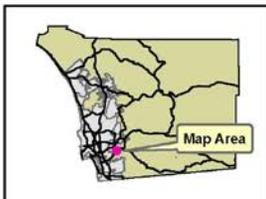
MSCP Acquisitions by County of San Diego Department of Parks and Recreation in Reporting Year

## County of San Diego Dictionary Hill Preserve (North)



<b>Acquisition Name:</b>	Dictionary Hill Preserve (North)
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	1.45
<b>Acquisition Date:</b>	9/30/2019
<b>Habitrak Tracking Number:</b>	19-110
<b>MSCP Segment:</b>	South Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Disturbed Habitat	0.91
Diegan Coastal Sage Scrub	0.54



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### Legend

- Acquisition. Not in PAMA, but still to be counted in Preserve\*
- MSCP (South County) Designation
- Unincorporated Land in Metro-Lakeside-Jamul Segment
- County Preserve
- Prior to Acquisition
- Metro-Lakeside-Jamul Segment
- Parcel Boundaries
- South Plan Boundary
- Road
- MSCP Gain
- MSCP Loss

\*Per document FWS/CDFW-09B0410-17CPA0328 dated September 15, 2017: The land included in Dictionary Hill "will contribute to the biological goals of MSCP and the buildout of the 98,379-acre Preserve."

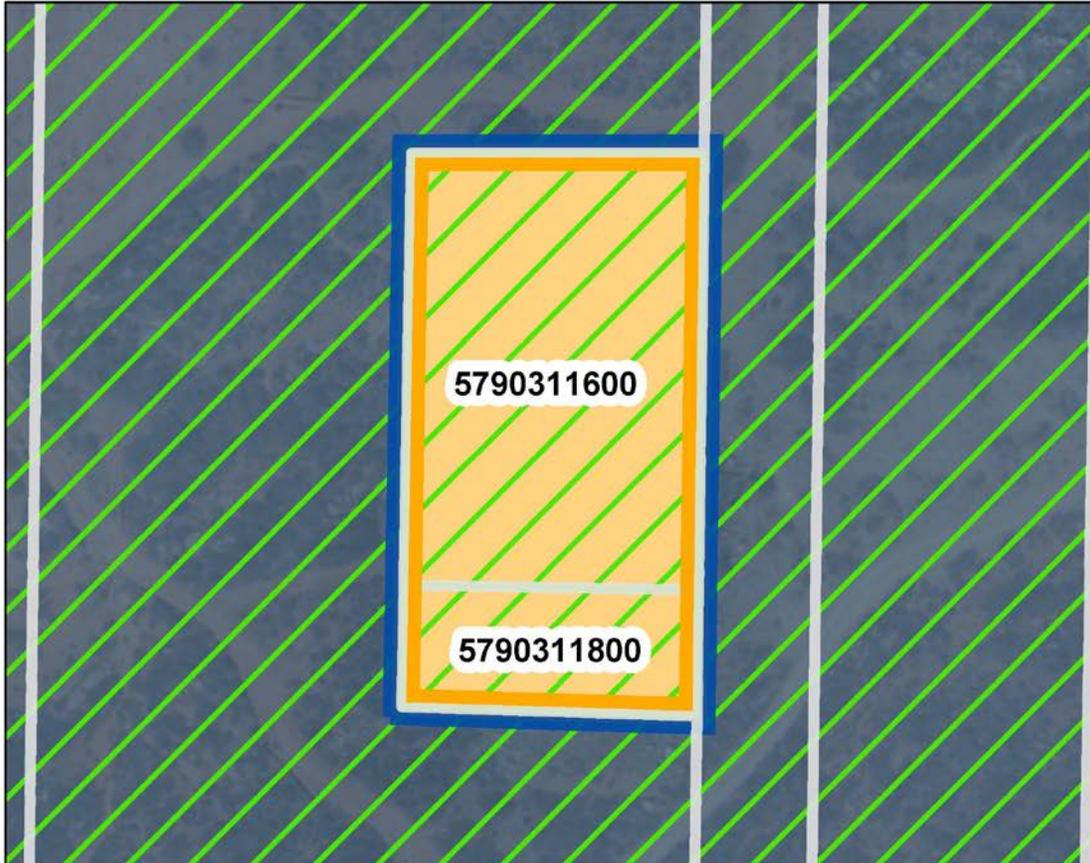
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0 40 80 Feet

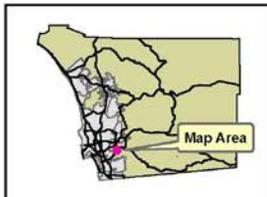


## County of San Diego Dictionary Hill Preserve (Inholding)



<b>Acquisition Name:</b>	Dictionary Hill Preserve (In Holding)
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	0.69
<b>Acquisition Date:</b>	10/10/2019
<b>Habitrak Tracking Number:</b>	19-111
<b>MSCP Segment:</b>	South Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Diegan Coastal Sage Scrub	0.69



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**Legend**

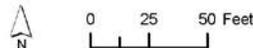
- Acquisition. Not in PAMA, but still to be counted in Preserve\*
- County Preserve
- Prior to Acquisition
- Parcel Boundaries
- MSCP Gain
- MSCP Loss

**MSCP (South County) Designation**

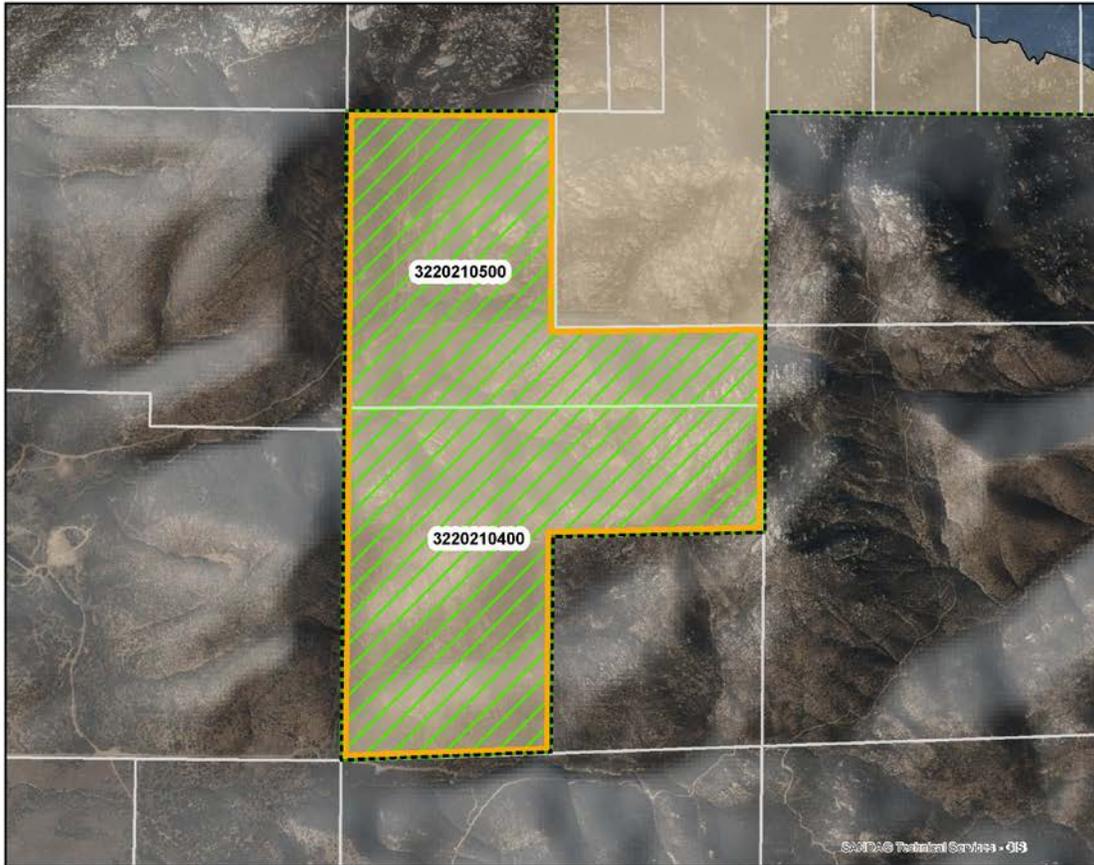
- Unincorporated Land in
- Metro-Lakeside-Jamul Segment
- South Plan Boundary

\*Per document FWS/CDFW-09B0410-17CPA0328 dated September 15, 2017: The land included in Dictionary Hill "will contribute to the biological goals of MSCP and the buildout of the 98,379-acre Preserve."

Path: P:\mscp\annual\_reports\2019\Acq\_Dictionary\_Hill\_Preserve\_Otay.mxd - Date: 12/19/2019

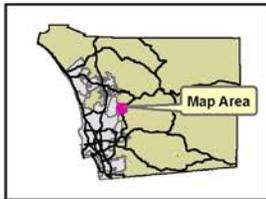


## County of San Diego Iron Mountain Preserve



<b>Acquisition Name:</b>	Iron Mountain Preserve
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	162.47
<b>Habitrak Acres:</b>	162.27
<b>Acquisition Date:</b>	9/27/2019
<b>Habitrak Tracking Number:</b>	19-109
<b>MSCP Segment:</b>	North Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Chaparral	161.69
Coast Live Oak Woodland	0.78



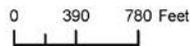
### Legend

- Acquisition
  - County Preserve
  - Prior to Acquisition
  - Parcel Boundaries
  - MSCP Gain
  - MSCP Loss
- 
- MSCP (South County) Designation**
  - Pre-Approved Mitigation Area
  - Unincorporated Land in Metro-Lakeside-Jamul Segment
  - South Plan Boundary

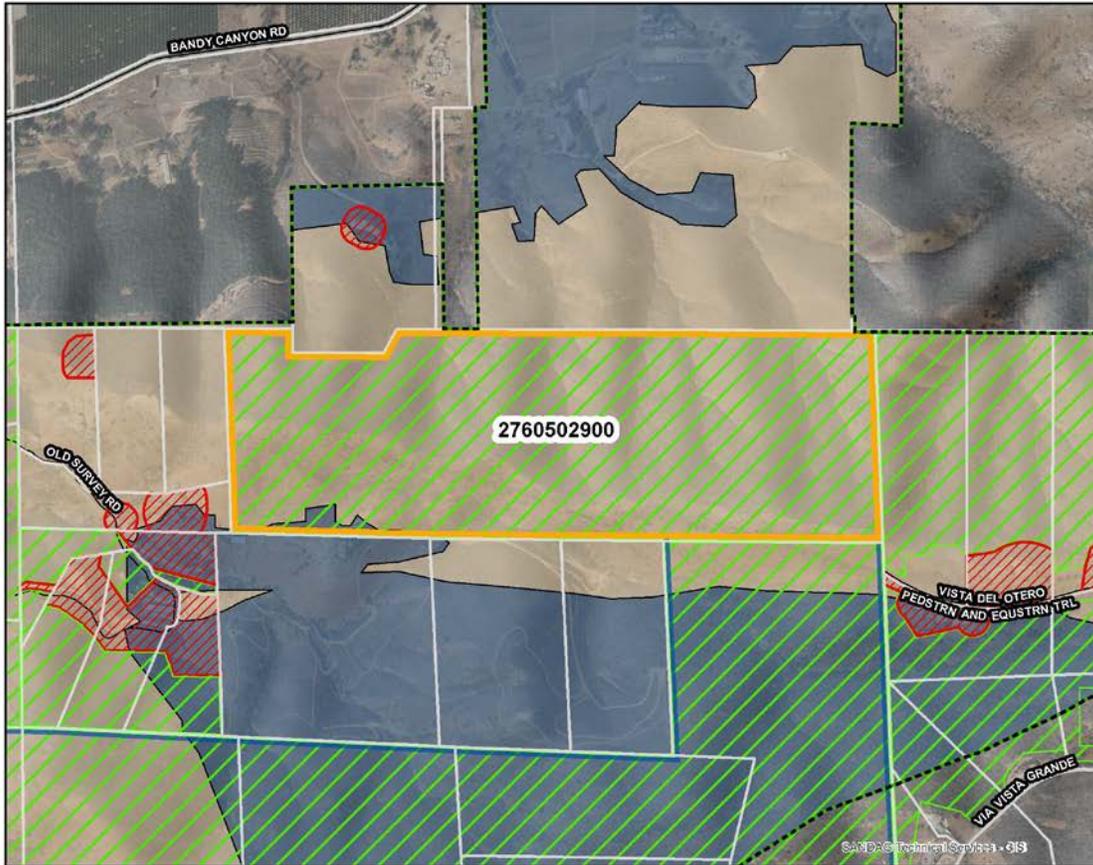
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Path: P:\mncpl\annual\_reports\2019\Acq\_Iron\_Mountain\_Preserve.mxd - Date: 1/23/2020

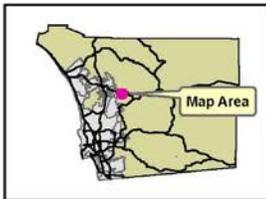


## County of San Diego Ramona Grasslands Preserve



<b>Acquisition Name:</b>	Ramona Grasslands Preserve
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	121.36
<b>Habitrak Acres:</b>	121.37
<b>Acquisition Date:</b>	6/28/2018
<b>Habitrak Tracking Number:</b>	19-106
<b>MSCP Segment:</b>	North Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Diegan Coastal Sage Scrub	102.48
Chaparral	16.65
Urban/Developed	2.16
Orchards and Vineyards	0.05
Disturbed Habitat	0.02
Dense Coast Live Oak Woodland	0.01

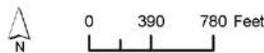


### Legend

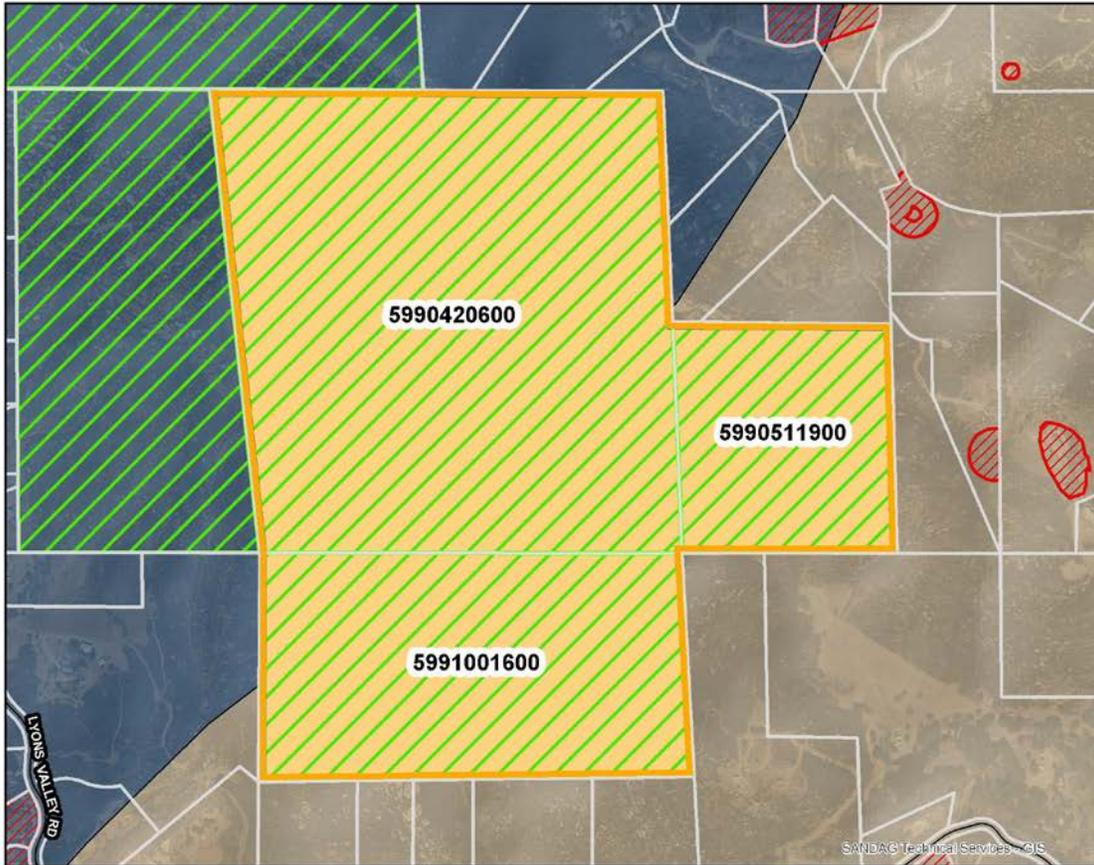
- Acquisition
  - County Preserve
  - Prior to Acquisition
  - Parcel Boundaries
  - Road
  - MSCP Gain
  - MSCP Loss
- MSCP (South County) Designation**
  - Pre-Approved Mitigation Area
  - Unincorporated Land in Metro-Lakeside-Jamul Segment
  - South Plan Boundary

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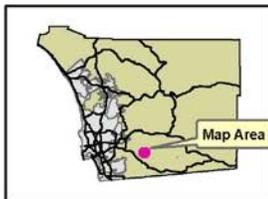


## County of San Diego Skyline Preserve



<b>Acquisition Name:</b>	Skyline Preserve
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	261.60
<b>Habitrak Acres:</b>	261.59
<b>Acquisition Date:</b>	8/19/2019
<b>Habitrak Tracking Number:</b>	19-107
<b>MSCP Segment:</b>	South Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Chaparral	239.56
Diegan Coastal Sage Scrub	14.92
Dense Coast Live Oak Woodland	7.12



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Path: P:\mscplannual\_reports\2019\Acq\_Skyline\_Preserve.mxd - Date: 1/23/2020

### Legend

- Acquisition. Not in PAMA, but still to be counted in Preserve\*
  - County Preserve Prior to Acquisition
  - Parcel Boundaries
  - Road
  - MSCP Gain
  - MSCP Loss
- MSCP (South County) Designation**
- Pre-Approved Mitigation Area
  - Unincorporated Land in Metro-Lakeside-Jamul Segment
  - South Plan Boundary

\*Per May 2, 2019 email from David Mayer, CDFW "The Wildlife Agencies are supportive of acquiring the Skyline property... The property will contribute to securing habitat linkage N that is identified in the MSCP plan."

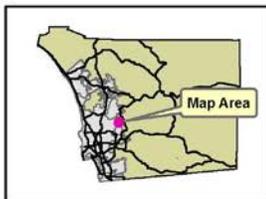


## County of San Diego Sycamore Canyon



<b>Acquisition Name:</b>	Sycamore Canyon
<b>Owner:</b>	County of San Diego
<b>Management Agency:</b>	Local
<b>GIS Acres:</b>	20.07
<b>Habitrak Acres:</b>	20.08
<b>Acquisition Date:</b>	9/12/2019
<b>Habitrak Tracking Number:</b>	19-108
<b>MSCP Segment:</b>	North Metro-Lakeside-Jamul Segment

MSCP Vegetation Type	Acres
Chaparral	12.37
Diegan Coastal Sage Scrub	7.70



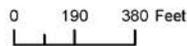
### Legend

- Acquisition
  - County Preserve Prior to Acquisition
  - Parcel Boundaries
  - MSCP Gain
  - MSCP Loss
- MSCP (South County) Designation**
- Pre-Approved Mitigation Area
  - South Plan Boundary

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Path: P:\msscplannul\_reports\2019\Acq\_Sycamore\_Canyon.mxd - Date: 1/23/2020



## **APPENDIX E**

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### Summary of MSCP Losses

## Summary of Project Losses

### MSCP South San Diego County

MSCP Subarea Plan

From 1/1/2019 To 12/31/2019



#### County of San Diego

Project Tracking #	Project Name	Location	Applicant	APHN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-033	BP Alcantar		Alcantar	600-220-17	12/11/2019	Loss	0	Single-Family Residential	0.19	0.00	0.19
19-049	BP Allen		Allen	396-051-47	12/11/2019	Loss	0	Single-Family Residential	0.14	0.00	0.14
19-045	BP Alonso		Alonso		12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-027	BP Bankhead		Bankhead	392-130-41	12/10/2019	Loss	0	Single-Family Residential	0.00	0.31	0.31
19-089	BP Barka		Barka	517-021-79	12/11/2019	Loss	0	Single-Family Residential	0.23	0.00	0.23
19-070	BP Barrett		Barrett	650-070-06	12/11/2019	Loss	0	Single-Family Residential	0.21	0.00	0.21
19-047	BP Basantes		Basantes	564-063-36	12/11/2019	Loss	0	Single-Family Residential	0.31	0.00	0.31
19-052	BP Boaz		Boaz	379-102-65	12/11/2019	Loss	0	Single-Family Residential	0.81	0.00	0.81
19-059	BP Brand		Brand	267-146-10	12/11/2019	Loss	0	Single-Family Residential	1.68	0.00	1.68
19-041	BP Bravo		Bravo	522-121-26	12/11/2019	Loss	0	Single-Family Residential	0.00	2.04	2.04
19-056	BP Brazil		Brazil	241-190-06	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-026	BP Brown		Brown	329-141-09	12/10/2019	Loss	0	Single-Family Residential	0.87	0.58	1.45
19-023	BP Bush		Bush	399-030-46	12/10/2019	Loss	0	Single-Family Residential	0.00	0.20	0.20
19-020	BP Cabrera		Cabrera	389-062-32	12/10/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-103	BP Campbell		Campbell	404-231-02	12/11/2019	Loss	0	Single-Family Residential	1.43	0.00	1.43
19-118	BP Carter		Carter	237-161-24	12/23/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-031	BP Casillas		Casillas	519-040-51	12/10/2019	Loss	0	Single-Family Residential	0.00	0.32	0.32
19-060	BP Castebianco		Castebianco	324-010-59	12/11/2019	Loss	0	Single-Family Residential	0.00	0.14	0.14
19-082	BP Chenoweth		Chenoweth	393-010-36	12/11/2019	Loss	0	Single-Family Residential	0.00	0.30	0.30

Friday, February 14, 2020 10:03 AM

Report generated by the California Department of Fish and Wildlife

Page 1 of 7

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-030	BP Cho Koong		Cho Koong	303-101-07	12/10/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16
19-019	BP Clark		Clark	269-100-48	12/10/2019	Loss	0	Single-Family Residential	2.06	0.00	2.06
19-099	BP Coleman		Coleman	404-431-40	12/11/2019	Loss	0	Single-Family Residential	0.58	0.00	0.58
19-071	BP Colwell		Colwell	509-044-02	12/11/2019	Loss	0	Single-Family Residential	0.52	0.00	0.52
19-029	BP D2 Enterprises		D2 Enterprises	375-041-31	12/10/2019	Loss	0	Single-Family Residential	1.15	0.00	1.15
19-043	BP Dalechek		Dalechek	241-040-22	12/11/2019	Loss	0	Single-Family Residential	0.33	0.00	0.33
19-094	BP Dawood		Dawood	395-430-07	12/11/2019	Loss	0	Single-Family Residential	0.00	0.10	0.10
19-038	BP Day		Day	305-050-17	12/11/2019	Loss	0	Single-Family Residential	0.13	0.00	0.13
19-037	BP Estrada		Estrada	404-200-24	12/11/2019	Loss	0	Single-Family Residential	0.91	0.00	0.91
19-078	BP Finney		Finney	324-010-58	12/11/2019	Loss	0	Single-Family Residential	0.00	1.05	1.05
19-036	BP Frude		Frude	329-132-27	12/11/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
19-022	BP Ganini		Ganini	522-251-03	12/10/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-067	BP Gurrola		Gurrola	585-112-30	12/11/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-032	BP Hagan		Hagan	599-220-70	12/10/2019	Loss	0	Single-Family Residential	0.88	0.00	0.88
19-087	BP Harbison		Harbinson	399-140-13	12/11/2019	Loss	0	Single-Family Residential	0.43	0.00	0.43
19-105	BP Holland		Holland	404-460-24	12/12/2019	Loss	0	Single-Family Residential	0.42	0.00	0.42
19-015	BP Howard		Howard	513-120-54	12/10/2019	Loss	0	Single-Family Residential	1.04	0.00	1.04
19-085	BP Hronek		Hronek	267-147-67	12/11/2019	Loss	0	Single-Family Residential	0.25	0.00	0.25
19-096	BP Hutchison		Hutchison	393-011-13	12/11/2019	Loss	0	Single-Family Residential	0.17	0.05	0.23
19-040	BP Kako		Kako	504-152-41	12/11/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16
19-142	BP Kavmir		Kavmir Revocable Trust	239-160-61	12/31/2019	Loss	0	Single-Family Residential	0.19	0.00	0.19
19-076	BP Kraemer		Kraemer	404-200-08	12/11/2019	Loss	0	Single-Family Residential	0.67	0.00	0.67

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-062	BP Kraemer		Kraemer	404-200-07	12/11/2019	Loss	0	Single-Family Residential	1.17	0.00	1.17
19-086	BP Leedy		Leedy	276-022-08	12/11/2019	Loss	0	Single-Family Residential	0.00	1.61	1.61
19-090	BP Lembcke		Lembcke	404-251-48	12/11/2019	Loss	0	Single-Family Residential	0.08	0.00	0.08
19-014	BP Lunn		Lunn	519-094-30	12/10/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
19-039	BP Magarro		Magarro	396-202-13	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-016	BP Marcos		Marcos	513-073-16	12/10/2019	Loss	0	Single-Family Residential	0.00	0.03	0.03
19-068	BP McCullough		McCullough	303-014-35	12/11/2019	Loss	0	Single-Family Residential	1.35	0.00	1.35
19-091	BP McMillin		McMillin	401-211-26	12/11/2019	Loss	0	Single-Family Residential	0.00	0.25	0.25
19-063	BP Miller		Miller	276-160-03	12/11/2019	Loss	0	Single-Family Residential	1.37	0.00	1.37
19-017	BP Moehling		Moehling	599-110-49	12/10/2019	Loss	0	Single-Family Residential	0.00	0.65	0.65
19-021	BP Monaghan		Monaghan	278-233-22	12/10/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-075	BP Nachurski		Nachurski	241-040-01	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-065	BP Nevarez		Nevarez	285-030-24	12/11/2019	Loss	0	Single-Family Residential	0.35	0.00	0.35
19-044	BP New West Investment Group		New West Investment Group	596-173-51	12/11/2019	Loss	0	Single-Family Residential	0.85	0.00	0.85
19-097	BP Olguin		Olguin	589-422-47	12/11/2019	Loss	0	Single-Family Residential	0.39	0.00	0.39
19-141	BP Olsen		Olsen Forrest	602-012-26	12/31/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-072	BP Ortiz		Ortiz	522-120-38	12/11/2019	Loss	0	Single-Family Residential	0.00	0.16	0.16
19-064	BP Ottonello		Ottonello	329-120-51	12/11/2019	Loss	0	Single-Family Residential	0.25	0.00	0.25
19-046	BP Palacio		Palacio	594-160-22	12/11/2019	Loss	0	Single-Family Residential	0.33	0.00	0.33
19-073	BP Peet		Peet	285-023-22	12/11/2019	Loss	0	Single-Family Residential	0.23	0.00	0.23
19-025	BP Putrus		Putrus	518-111-64	12/10/2019	Loss	0	Single-Family Residential	0.00	0.11	0.11
19-055	BP Rasmussen		Rasmussen	389-091-12	12/11/2019	Loss	0	Single-Family Residential	0.79	0.32	1.11

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-051	BP Raymont		Raymont	522-112-05	12/11/2019	Loss	0	Single-Family Residential	0.00	0.81	0.81
19-084	BP Rivera		Rivera	597-241-07	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-077	BP Rose		Rose	268-280-25	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-024	BP Ross		Ross	396-220-32	12/10/2019	Loss	0	Single-Family Residential	0.00	0.26	0.26
19-080	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.22	0.00	0.22
19-092	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.13	0.00	0.13
19-081	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16
19-054	BP Sabala		Sabala	402-292-37	12/11/2019	Loss	0	Single-Family Residential	0.63	0.00	0.63
19-093	BP Salma		Salma	267-171-23	12/11/2019	Loss	0	Single-Family Residential	0.00	0.03	0.03
19-028	BP Scheuer		Scheuer	285-140-07	12/10/2019	Loss	0	Single-Family Residential	0.12	0.00	0.12
19-101	BP Schroeder		Schroeder	397-360-05	12/11/2019	Loss	0	Single-Family Residential	0.00	0.58	0.58
19-057	BP Shellstrom		Shellstrom	597-041-26	12/11/2019	Loss	0	Single-Family Residential	1.98	0.00	1.98
19-100	BP Silverthorn		Silverthorn	404-200-31	12/11/2019	Loss	0	Single-Family Residential	0.86	0.00	0.86
19-069	BP Simpson		Simpson	520-012-08	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-058	BP Sloan		Sloan	285-081-29	12/11/2019	Loss	0	Single-Family Residential	0.00	2.46	2.46
19-061	BP Smith		Smith	404-421-35	12/11/2019	Loss	0	Single-Family Residential	0.80	0.00	0.80
19-053	BP Smith		Smith	404-100-34	12/11/2019	Loss	0	Single-Family Residential	2.72	0.00	2.72
19-098	BP Somo		Somo	515-200-13	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-083	BP Swain		Swain	502-201-11	12/11/2019	Loss	0	Single-Family Residential	0.14	0.00	0.14
19-102	BP Tan Kiang		Tan Kiang	596-161-15	12/11/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-050	BP Tanner		Tanner	402-281-80	12/11/2019	Loss	0	Single-Family Residential	0.67	0.00	0.67
19-074	BP Timmerman		Timmerman	599-020-14	12/11/2019	Loss	0	Single-Family Residential	0.34	0.00	0.34

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-034	BP Treadway		Treadway	404-470-04	12/11/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-018	BP Valenzuela		Valenzuela	649-190-18	12/10/2019	Loss	0	Single-Family Residential	1.16	0.00	1.16
19-088	BP Vier		Vier	272-252-25	12/11/2019	Loss	0	Single-Family Residential	0.17	0.02	0.19
19-117	BP Voith		Voith	513-072-06	12/23/2019	Loss	0	Single-Family Residential	0.00	0.16	0.16
19-104	BP Walker		Walker	404-220-65	12/12/2019	Loss	0	Single-Family Residential	0.56	0.00	0.56
19-066	BP Walker		Walker	599-051-32	12/11/2019	Loss	0	Single-Family Residential	0.00	1.58	1.58
19-116	BP Watts		Watts	267-147-12	12/23/2019	Loss	0	Single-Family Residential	1.93	0.00	1.93
19-079	BP Willoughby		Willoughby	519-311-15	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-035	BP Windsor		Windsor	312-265-16	12/11/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
19-048	BP Worsham		Worsham	600-131-22	12/11/2019	Loss	0	Single-Family Residential	1.82	0.00	1.82
19-095	BP Yacoub		Yacoub	508-010-14	12/11/2019	Loss	0	Single-Family Residential	0.62	0.00	0.62
19-042	BP Ymzon		Ymzon	590-052-16	12/11/2019	Loss	0	Single-Family Residential	0.48	0.00	0.48
19-133	COI Bohlen		Bohlen	597-220-14	12/23/2019	Loss	0	Single-Family Residential	2.14	0.00	2.14
19-137	COI Brown		Brown	329-141-09	12/23/2019	Loss	0	Single-Family Residential	0.33	0.94	1.26
19-129	COI Brown		Brown	519-141-15	12/23/2019	Loss	0	Single-Family Residential	1.03	0.22	1.25
19-135	COI Castro		Castro	597-242-07	12/23/2019	Loss	0	Single-Family Residential	2.65	0.00	2.65
19-125	COI Century		Century	239-160-66	12/23/2019	Loss	0	Single-Family Residential	3.19	0.00	3.19
19-136	COI Erkenbeck		Erkenbeck	393-152-06	12/23/2019	Loss	0	Single-Family Residential	2.62	0.00	2.62
19-128	COI Gilding		Gilding	268-140-13	12/23/2019	Loss	0	Single-Family Residential	0.93	0.00	0.93
19-121	COI Howard		Howard	513-120-02	12/23/2019	Loss	0	Single-Family Residential	4.58	0.00	4.58
19-123	COI Hunnicutt		Hunnicutt	394-470-41	12/23/2019	Loss	0	Single-Family Residential	2.02	0.05	2.07
19-134	COI Kleege		Kleege	269-030-25	12/23/2019	Loss	0	Single-Family Residential	2.85	0.00	2.85

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
19-138	COI Larson		Larson	596-250-09	12/24/2019	Loss	0	Single-Family Residential	3.49	0.00	3.49
19-139	COI Manansala		Manansala	599-062-39	12/24/2019	Loss	0	Single-Family Residential	0.00	2.17	2.17
19-131	COI Marcos		Marcos	515-171-07	12/23/2019	Loss	0	Single-Family Residential	0.51	0.00	0.51
19-130	COI Paradise		Paradise	404-012-34	12/23/2019	Loss	0	Single-Family Residential	1.38	0.00	1.38
19-124	COI Polkinghorn		Polkinghorn	599-141-13	12/23/2019	Loss	0	Single-Family Residential	0.00	3.18	3.18
19-127	COI Ruvalcaba		Ruvalcaba	509-310-28	12/23/2019	Loss	0	Single-Family Residential	0.00	1.67	1.67
19-120	COI S.D Commercial		S.D Commercial	303-060-44	12/23/2019	Loss	0	Single-Family Residential	2.16	0.00	2.16
19-122	COI San Pasqyal Investment		San Pasqual Investment	241-080-50	12/23/2019	Loss	0	Single-Family Residential	4.68	0.00	4.68
19-140	COI Schick		Schick	599-140-53	12/24/2019	Loss	0	Single-Family Residential	4.92	0.00	4.92
19-119	COI Shuman		Shuman	596-101-01	12/23/2019	Loss	0	Single-Family Residential	5.40	0.00	5.40
19-126	COI Stevens		Stevens	599-062-47	12/23/2019	Loss	0	Single-Family Residential	0.00	3.59	3.59
19-132	COI Zoree		Zoree	396-080-64	12/23/2019	Loss	0	Single-Family Residential	2.46	0.00	2.46
19-011	TM-5202		Quail Canyon Estates	393-022-11	12/10/2019	Loss	0	Single-Family Residential	38.07	37.82	75.89
19-007	TM-5316		Montemar Estates	504-242-41	12/10/2019	Loss	0	Single-Family Residential	5.96	0.00	5.96
19-009	TM-5346		Swaim	398-390-19	12/10/2019	Loss	0	Single-Family Residential	1.05	2.70	3.75
19-005	TM-5405		Kearny	648-070-39 648-071-04 648-071-05 648-071-06 648-071-07 648-071-08 648-071-09 648-071-10 648-071-11 648-071-12 648-071-13 648-071-14	12/10/2019	Loss	0	Commercial	80.07	15.87	95.94

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of		CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
					Loss	Status					
19-010	TM-5588		LAACO	760-128-54	12/10/2019	Loss	0	Single-Family Residential	17.23	0.00	17.23
19-008	TPM-21054		Shorees	513-073-14	12/10/2019	Loss	0	Single-Family Residential	0.00	4.84	4.84
19-006	TPM-21080		Bongiovanni	399-130-45	12/10/2019	Loss	0	Single-Family Residential	4.99	0.00	4.99
<b>Total for Agency: County of San Diego</b>									<b>236.55</b>	<b>87.17</b>	<b>323.72</b>

Summary

## Summary of Project Losses

### MSCP South San Diego County

MSCP Subarea Plan

From 1/1/2019 To 12/31/2019



**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APH	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: Lake Hodges											
19-059	BP Brand		Brand	267-146-10	12/11/2019	Loss	0	Single-Family Residential	1.68	0.00	1.68
19-019	BP Clark		Clark	269-100-48	12/10/2019	Loss	0	Single-Family Residential	2.06	0.00	2.06
19-085	BP Hronek		Hronek	267-147-67	12/11/2019	Loss	0	Single-Family Residential	0.25	0.00	0.25
19-116	BP Watts		Watts	267-147-12	12/23/2019	Loss	0	Single-Family Residential	1.93	0.00	1.93
19-035	BP Windsor		Windsor	312-265-16	12/11/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
Total for Segment: Lake Hodges									6.01	0.00	6.01
Segment: North Metro Lakeside Jamul											
19-049	BP Allen		Allen	396-051-47	12/11/2019	Loss	0	Single-Family Residential	0.14	0.00	0.14
19-027	BP Bankhead		Bankhead	392-130-41	12/10/2019	Loss	0	Single-Family Residential	0.00	0.31	0.31
19-052	BP Boaz		Boaz	379-102-65	12/11/2019	Loss	0	Single-Family Residential	0.81	0.00	0.81
19-056	BP Brazil		Brazil	241-190-06	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-026	BP Brown		Brown	329-141-09	12/10/2019	Loss	0	Single-Family Residential	0.87	0.58	1.45
19-020	BP Cabrera		Cabrera	389-062-32	12/10/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-118	BP Carter		Carter	237-161-24	12/23/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-060	BP Castebianco		Castebianco	324-010-59	12/11/2019	Loss	0	Single-Family Residential	0.00	0.14	0.14
19-082	BP Chenoweth		Chenoweth	393-010-36	12/11/2019	Loss	0	Single-Family Residential	0.00	0.30	0.30
19-030	BP Cho Koong		Cho Koong	303-101-07	12/10/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16
19-029	BP D2 Enterprises		D2 Enterprises	375-041-31	12/10/2019	Loss	0	Single-Family Residential	1.15	0.00	1.15
19-043	BP Dalechek		Dalechek	241-040-22	12/11/2019	Loss	0	Single-Family Residential	0.33	0.00	0.33

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**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: North Metro Lakeside Jamul											
19-094	BP Dawood		Dawood	395-430-07	12/11/2019	Loss	0	Single-Family Residential	0.00	0.10	0.10
19-038	BP Day		Day	305-050-17	12/11/2019	Loss	0	Single-Family Residential	0.13	0.00	0.13
19-078	BP Finney		Finney	324-010-58	12/11/2019	Loss	0	Single-Family Residential	0.00	1.05	1.05
19-036	BP Frude		Frude	329-132-27	12/11/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
19-096	BP Hutchison		Hutchison	393-011-13	12/11/2019	Loss	0	Single-Family Residential	0.17	0.05	0.23
19-142	BP Kavmir		Kavmir Revocable Trust	239-160-61	12/31/2019	Loss	0	Single-Family Residential	0.19	0.00	0.19
19-086	BP Leedy		Leedy	276-022-08	12/11/2019	Loss	0	Single-Family Residential	0.00	1.61	1.61
19-039	BP Magarro		Magarro	396-202-13	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-068	BP McCullough		McCullough	303-014-35	12/11/2019	Loss	0	Single-Family Residential	1.35	0.00	1.35
19-063	BP Miller		Miller	276-160-03	12/11/2019	Loss	0	Single-Family Residential	1.37	0.00	1.37
19-021	BP Monaghan		Monaghan	278-233-22	12/10/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-075	BP Nachurski		Nachurski	241-040-01	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-065	BP Nevarez		Nevarez	285-030-24	12/11/2019	Loss	0	Single-Family Residential	0.35	0.00	0.35
19-064	BP Ottonello		Ottonello	329-120-51	12/11/2019	Loss	0	Single-Family Residential	0.25	0.00	0.25
19-073	BP Peet		Peet	285-023-22	12/11/2019	Loss	0	Single-Family Residential	0.23	0.00	0.23
19-055	BP Rasmussen		Rasmussen	389-091-12	12/11/2019	Loss	0	Single-Family Residential	0.79	0.32	1.11
19-077	BP Rose		Rose	268-280-25	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-024	BP Ross		Ross	396-220-32	12/10/2019	Loss	0	Single-Family Residential	0.00	0.26	0.26
19-080	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.22	0.00	0.22
19-092	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.13	0.00	0.13
19-081	BP Rutledge		Rutledge	269-202-23	12/11/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: North Metro Lakeside Jamul											
19-054	BP Sabala		Sabala	402-292-37	12/11/2019	Loss	0	Single-Family Residential	0.63	0.00	0.63
19-093	BP Salma		Salma	267-171-23	12/11/2019	Loss	0	Single-Family Residential	0.00	0.03	0.03
19-028	BP Scheuer		Scheuer	285-140-07	12/10/2019	Loss	0	Single-Family Residential	0.12	0.00	0.12
19-101	BP Schroeder		Schroeder	397-360-05	12/11/2019	Loss	0	Single-Family Residential	0.00	0.58	0.58
19-058	BP Sloan		Sloan	285-081-29	12/11/2019	Loss	0	Single-Family Residential	0.00	2.46	2.46
19-050	BP Tanner		Tanner	402-281-80	12/11/2019	Loss	0	Single-Family Residential	0.67	0.00	0.67
19-088	BP Vier		Vier	272-252-25	12/11/2019	Loss	0	Single-Family Residential	0.17	0.02	0.19
19-137	COI Brown		Brown	329-141-09	12/23/2019	Loss	0	Single-Family Residential	0.33	0.94	1.26
19-125	COI Century		Century	239-160-66	12/23/2019	Loss	0	Single-Family Residential	3.19	0.00	3.19
19-136	COI Erkenbeck		Erkenbeck	393-152-06	12/23/2019	Loss	0	Single-Family Residential	2.62	0.00	2.62
19-128	COI Gilding		Gilding	268-140-13	12/23/2019	Loss	0	Single-Family Residential	0.93	0.00	0.93
19-123	COI Hunnicutt		Hunnicutt	394-470-41	12/23/2019	Loss	0	Single-Family Residential	2.02	0.05	2.07
19-134	COI Kleege		Kleege	269-030-25	12/23/2019	Loss	0	Single-Family Residential	2.85	0.00	2.85
19-130	COI Paradise		Paradise	404-012-34	12/23/2019	Loss	0	Single-Family Residential	1.38	0.00	1.38
19-120	COI S.D Commercial		S.D Commercial	303-060-44	12/23/2019	Loss	0	Single-Family Residential	2.16	0.00	2.16
19-122	COI San Pasqyal Investment		San Pasqual Investment	241-080-50	12/23/2019	Loss	0	Single-Family Residential	4.68	0.00	4.68
19-011	TM-5202		Quail Canyon Estates	393-022-11	12/10/2019	Loss	0	Single-Family Residential	38.07	37.82	75.89
19-009	TM-5346		Swaim	398-390-19	12/10/2019	Loss	0	Single-Family Residential	1.05	2.70	3.75
Total for Segment: North Metro Lakeside Jamul									70.91	49.34	120.25

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: South County											
19-005	TM-5405		Kearny	648-070-39 648-071-04 648-071-05 648-071-06 648-071-07 648-071-08 648-071-09 648-071-10 648-071-11 648-071-12 648-071-13 648-071-14	12/10/2019	Loss	0	Commercial	80.07	15.87	95.94
Total for Segment: South County									80.07	15.87	95.94
Segment: South Metro Lakeside Jamul											
19-033	BP Alcantar		Alcantar	600-220-17	12/11/2019	Loss	0	Single-Family Residential	0.19	0.00	0.19
19-045	BP Alonso		Alonso		12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-089	BP Barka		Barka	517-021-79	12/11/2019	Loss	0	Single-Family Residential	0.23	0.00	0.23
19-070	BP Barrett		Barrett	650-070-06	12/11/2019	Loss	0	Single-Family Residential	0.21	0.00	0.21
19-047	BP Basantes		Basantes	564-063-36	12/11/2019	Loss	0	Single-Family Residential	0.31	0.00	0.31
19-041	BP Bravo		Bravo	522-121-26	12/11/2019	Loss	0	Single-Family Residential	0.00	2.04	2.04
19-023	BP Bush		Bush	399-030-46	12/10/2019	Loss	0	Single-Family Residential	0.00	0.20	0.20
19-103	BP Campbell		Campbell	404-231-02	12/11/2019	Loss	0	Single-Family Residential	1.43	0.00	1.43
19-031	BP Casillas		Casillas	519-040-51	12/10/2019	Loss	0	Single-Family Residential	0.00	0.32	0.32
19-099	BP Coleman		Coleman	404-431-40	12/11/2019	Loss	0	Single-Family Residential	0.58	0.00	0.58
19-071	BP Colwell		Colwell	509-044-02	12/11/2019	Loss	0	Single-Family Residential	0.52	0.00	0.52
19-037	BP Estrada		Estrada	404-200-24	12/11/2019	Loss	0	Single-Family Residential	0.91	0.00	0.91
19-022	BP Ganini		Ganini	522-251-03	12/10/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: South Metro Lakeside Jamul											
19-067	BP Gurrola		Gurrola	585-112-30	12/11/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-032	BP Hagan		Hagan	599-220-70	12/10/2019	Loss	0	Single-Family Residential	0.88	0.00	0.88
19-087	BP Harbison		Harbinson	399-140-13	12/11/2019	Loss	0	Single-Family Residential	0.43	0.00	0.43
19-105	BP Holland		Holland	404-460-24	12/12/2019	Loss	0	Single-Family Residential	0.42	0.00	0.42
19-015	BP Howard		Howard	513-120-54	12/10/2019	Loss	0	Single-Family Residential	1.04	0.00	1.04
19-040	BP Kako		Kako	504-152-41	12/11/2019	Loss	0	Single-Family Residential	0.16	0.00	0.16
19-076	BP Kraemer		Kraemer	404-200-08	12/11/2019	Loss	0	Single-Family Residential	0.67	0.00	0.67
19-062	BP Kraemer		Kraemer	404-200-07	12/11/2019	Loss	0	Single-Family Residential	1.17	0.00	1.17
19-090	BP Lembcke		Lembcke	404-251-48	12/11/2019	Loss	0	Single-Family Residential	0.08	0.00	0.08
19-014	BP Lunn		Lunn	519-094-30	12/10/2019	Loss	0	Single-Family Residential	0.10	0.00	0.10
19-016	BP Marcos		Marcos	513-073-16	12/10/2019	Loss	0	Single-Family Residential	0.00	0.03	0.03
19-091	BP McMillin		McMillin	401-211-26	12/11/2019	Loss	0	Single-Family Residential	0.00	0.25	0.25
19-017	BP Moehling		Moehling	599-110-49	12/10/2019	Loss	0	Single-Family Residential	0.00	0.65	0.65
19-044	BP New West Investment Group		New West Investment Group	596-173-51	12/11/2019	Loss	0	Single-Family Residential	0.85	0.00	0.85
19-097	BP Olguin		Olguin	589-422-47	12/11/2019	Loss	0	Single-Family Residential	0.39	0.00	0.39
19-141	BP Olsen		Olsen Forrest	602-012-26	12/31/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-072	BP Ortiz		Ortiz	522-120-38	12/11/2019	Loss	0	Single-Family Residential	0.00	0.16	0.16
19-046	BP Palacio		Palacio	594-160-22	12/11/2019	Loss	0	Single-Family Residential	0.33	0.00	0.33
19-025	BP Putrus		Putrus	518-111-64	12/10/2019	Loss	0	Single-Family Residential	0.00	0.11	0.11
19-051	BP Raymont		Raymont	522-112-05	12/11/2019	Loss	0	Single-Family Residential	0.00	0.81	0.81
19-084	BP Rivera		Rivera	597-241-07	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: South Metro Lakeside Jamul											
19-057	BP Shellstrom		Shellstrom	597-041-26	12/11/2019	Loss	0	Single-Family Residential	1.98	0.00	1.98
19-100	BP Silverthorn		Silverthorn	404-200-31	12/11/2019	Loss	0	Single-Family Residential	0.86	0.00	0.86
19-069	BP Simpson		Simpson	520-012-08	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-061	BP Smith		Smith	404-421-35	12/11/2019	Loss	0	Single-Family Residential	0.80	0.00	0.80
19-053	BP Smith		Smith	404-100-34	12/11/2019	Loss	0	Single-Family Residential	2.72	0.00	2.72
19-098	BP Somo		Somo	515-200-13	12/11/2019	Loss	0	Single-Family Residential	0.20	0.00	0.20
19-083	BP Swain		Swain	502-201-11	12/11/2019	Loss	0	Single-Family Residential	0.14	0.00	0.14
19-102	BP Tan Kiang		Tan Kiang	596-161-15	12/11/2019	Loss	0	Single-Family Residential	0.18	0.00	0.18
19-074	BP Timmerman		Timmerman	599-020-14	12/11/2019	Loss	0	Single-Family Residential	0.34	0.00	0.34
19-034	BP Treadway		Treadway	404-470-04	12/11/2019	Loss	0	Single-Family Residential	0.17	0.00	0.17
19-018	BP Valenzuela		Valenzuela	649-190-18	12/10/2019	Loss	0	Single-Family Residential	1.16	0.00	1.16
19-117	BP Voth		Voth	513-072-06	12/23/2019	Loss	0	Single-Family Residential	0.00	0.16	0.16
19-104	BP Walker		Walker	404-220-65	12/12/2019	Loss	0	Single-Family Residential	0.56	0.00	0.56
19-066	BP Walker		Walker	599-051-32	12/11/2019	Loss	0	Single-Family Residential	0.00	1.58	1.58
19-079	BP Willoughby		Willoughby	519-311-15	12/11/2019	Loss	0	Single-Family Residential	0.15	0.00	0.15
19-048	BP Worsham		Worsham	600-131-22	12/11/2019	Loss	0	Single-Family Residential	1.82	0.00	1.82
19-095	BP Yacoub		Yacoub	508-010-14	12/11/2019	Loss	0	Single-Family Residential	0.62	0.00	0.62
19-042	BP Ymzon		Ymzon	590-052-16	12/11/2019	Loss	0	Single-Family Residential	0.48	0.00	0.48
19-133	COI Bohlen		Bohlen	597-220-14	12/23/2019	Loss	0	Single-Family Residential	2.14	0.00	2.14
19-129	COI Brown		Brown	519-141-15	12/23/2019	Loss	0	Single-Family Residential	1.03	0.22	1.25
19-135	COI Castro		Castro	597-242-07	12/23/2019	Loss	0	Single-Family Residential	2.65	0.00	2.65

**County of San Diego**

Project Tracking #	Project Name	Location	Applicant	APN	Date of Loss	Status	CEQA Doc.	Activity Type	Acres Outside Habitat Preserve	Acres Inside Habitat Preserve	Total Acres
Segment: South Metro Lakeside Jamul											
19-121	COI Howard		Howard	513-120-02	12/23/2019	Loss	0	Single-Family Residential	4.58	0.00	4.58
19-138	COI Larson		Larson	596-250-09	12/24/2019	Loss	0	Single-Family Residential	3.49	0.00	3.49
19-139	COI Manansala		Manansala	599-062-39	12/24/2019	Loss	0	Single-Family Residential	0.00	2.17	2.17
19-131	COI Marcos		Marcos	515-171-07	12/23/2019	Loss	0	Single-Family Residential	0.51	0.00	0.51
19-124	COI Polkinghorn		Polkinghorn	599-141-13	12/23/2019	Loss	0	Single-Family Residential	0.00	3.18	3.18
19-127	COI Ruvalcaba		Ruvalcaba	509-310-28	12/23/2019	Loss	0	Single-Family Residential	0.00	1.67	1.67
19-140	COI Schick		Schick	599-140-53	12/24/2019	Loss	0	Single-Family Residential	4.92	0.00	4.92
19-119	COI Shuman		Shuman	596-101-01	12/23/2019	Loss	0	Single-Family Residential	5.40	0.00	5.40
19-126	COI Stevens		Stevens	599-062-47	12/23/2019	Loss	0	Single-Family Residential	0.00	3.59	3.59
19-132	COI Zoree		Zoree	396-080-64	12/23/2019	Loss	0	Single-Family Residential	2.46	0.00	2.46
19-007	TM-5316		Montemar Estates	504-242-41	12/10/2019	Loss	0	Single-Family Residential	5.96	0.00	5.96
19-010	TM-5588		LAACO	760-128-54	12/10/2019	Loss	0	Single-Family Residential	17.23	0.00	17.23
19-008	TPM-21054		Shorees	513-073-14	12/10/2019	Loss	0	Single-Family Residential	0.00	4.84	4.84
19-006	TPM-21080		Bongiovanni	399-130-45	12/10/2019	Loss	0	Single-Family Residential	4.99	0.00	4.99
Total for Segment: South Metro Lakeside Jamul									79.55	21.96	101.52
<b>Total for Agency: County of San Diego</b>									<b>236.55</b>	<b>87.17</b>	<b>323.72</b>

By Segment

## **APPENDIX F**

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### Summary of MSCP Losses and Gains

### Summary of Habitat Losses and Gains



MSCP Subarea Plan

Plan: MSCP South San Diego County

Project Gain Status: Gain

Date Range: 1/1/2019 - 12/31/2019

Project Loss Status: Loss

**County of San Diego**

Habitat Type	Target Cons.	Acres Inside the Habitat Preserve Planning Area					Acres Outside the Habitat Preserve				Total Acres				
		Habitat Loss		Habitat Gain		Cons. to Date %	Habitat Loss		Habitat Gain		Habitat Loss		Habitat Gain		
		Current Period	Cummulative	Current Period	Cummulative		Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative	Current Period	Cummulative	
Beach	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Saltpan	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southern Foredunes	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southern Coastal Bluff Scrub	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coastal Sage Scrub	42,873	56.60	741.33	165.71	29,604.00	69.05 %	54.18	1,298.87	33.11	7,901.07	110.78	2,140.20	198.82	37,505.07	
Maritime Succulent Scrub	6	0.00	0.00	0.00	3.89	64.77 %	0.00	0.00	0.00	8.23	0.00	0.00	0.00	12.12	
Chaparral	39,871	7.52	307.71	310.70	34,137.93	85.82 %	26.99	2,892.49	347.41	9,863.77	34.52	3,200.20	658.11	44,001.70	
Southern Maritime Chaparral	5	0.00	1.95	0.00	5.82	116.31 %	0.00	10.06	0.00	22.86	0.00	12.01	0.00	28.47	
Coastal Sage-Chaparral Scrub	1,325	0.00	12.40	0.00	1,008.94	76.15 %	0.53	134.11	0.00	1,115.49	0.53	146.51	0.00	2,124.43	
Grassland	3,171	7.43	59.93	0.00	1,958.76	61.77 %	11.50	1,199.99	10.52	991.02	18.93	1,259.92	10.52	2,949.78	
Southern Coastal Salt Marsh	0	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Freshwater Marsh	233	0.00	0.06	0.00	143.24	61.48 %	0.00	4.46	0.00	59.74	0.00	4.52	0.00	202.98	
Riparian Forest	348	0.00	0.45	0.00	311.67	89.56 %	0.00	2.00	0.00	74.33	0.00	2.45	0.00	385.99	
Oak Riparian Forest	2,192	1.31	34.18	0.00	1,004.27	45.82 %	0.52	47.67	1.40	473.56	1.84	81.85	1.40	1,477.83	
Riparian Woodland	20	0.00	0.00	0.00	10.88	54.39 %	0.00	0.00	0.00	6.45	0.00	0.00	0.00	17.33	
Riparian Scrub	383	0.55	4.83	0.00	121.93	31.83 %	0.50	14.87	0.00	69.06	1.05	19.71	0.00	190.98	
Oak Woodland	2,211	7.60	50.56	2.02	1,114.58	50.41 %	0.20	160.75	39.13	505.95	7.80	211.32	41.15	1,820.53	
Torrey Pine Forest	0	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tecate Cypress Forest	5,589	0.00	0.00	0.00	5,601.41	100.22 %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,601.41	
Eucalyptus Woodland	105	0.00	9.00	0.19	44.49	42.37 %	1.08	414.17	1.20	68.02	1.08	423.18	1.39	112.51	
Open Water	149	0.00	0.00	0.00	38.93	26.13 %	0.00	6.24	0.00	37.42	0.00	6.24	0.00	76.36	
Disturbed Wetland	90	0.00	1.99	0.00	78.99	87.77 %	0.00	16.25	0.00	26.00	0.00	18.24	0.00	104.99	
Natural Floodchannel	225	0.00	0.00	0.00	30.76	13.67 %	0.00	0.00	0.00	4.83	0.00	0.00	0.00	35.59	
Shallow Bays	0	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pacific Ocean/Deep Bay	0	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Disturbed Land	0	3.03	113.64	0.00	455.51		12.12	718.13	5.84	371.82	15.15	831.77	5.84	827.33	
Agriculture	0	3.12	100.25	0.88	544.95		98.80	1,445.47	0.55	2,319.40	101.82	1,545.72	1.22	2,864.35	
Urban/Developed	0	0.00	42.77	0.00	73.39		30.13	2,101.46	3.45	592.12	30.14	2,144.23	3.45	665.51	
Agency Total:		87.17	1,481.06	479.30	76,294.34		236.55	10,566.99	442.60	24,510.95	323.72	12,048.06	921.90	100,805.28	

Note: The Agriculture and Urban/Developed category is included to account for all land included within a project and habitat preserve planning area.

Summary

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Friday, February 14, 2020 10:14 AM

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## **APPENDIX G**

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### Habitat Conservation Accounting Model

## Habitat Conservation Accounting Model

### MSCP South San Diego County

MSCP Subarea Plan

From 1/1/2019 To 12/31/2019

Project Gain Status: Gain

Project Loss Status: Loss



<i>County of San Diego</i>	Total Subarea Habitat Preserve	Conservation Target	Estimated Take	Conservation Ratio	Cumulative Conservation Inside Habitat Preserve	Max. Allowable Impacts for the Current Period	Actual Loss Inside Habitat Preserve for Current Period	+ or - Max. Allowable Impacts
Beach	0	0	0	0.00	0.00	0.00	0.00	n/a
Saltpan	0	0	0	0.00	0.00	0.00	0.00	n/a
Southern Foredunes	0	0	0	0.00	0.00	0.00	0.00	n/a
Southern Coastal Bluff Scrub	0	0	0	0.00	0.00	0.00	0.00	n/a
Coastal Sage Scrub	23,569	18,717	4,852	3.86	12,334.85	3,363.00	95.35	-
Maritime Succulent Scrub	0	0	0	0.00	0.00	0.00	0.00	n/a
Chaparral	22,179	18,662	3,517	5.31	14,139.67	2,749.96	33.11	-
Southern Maritime Chaparral	0	0	0	0.00	0.00	0.00	0.00	n/a
Coastal Sage-Chaparral Scrub	1,366	1,152	214	5.38	824.29	159.21	0.53	-
Grassland	2,145	1,741	404	4.31	1,085.05	267.01	17.49	-
Southern Coastal Salt Marsh	0	0	0	0.00	0.00	0.00	0.00	n/a
Freshwater Marsh	15	15	0	0.00	6.75	0.00	0.00	n/a
Riparian Forest	84	84	0	0.00	86.09	0.00	0.00	n/a
Oak Riparian Forest	2,044	2,043	1	2,043.00	931.12	0.51	1.84	+
Riparian Woodland	6	6	0	0.00	4.24	0.00	0.00	n/a
Riparian Scrub	298	298	0	0.00	55.10	0.00	0.50	+
Oak Woodland	2,355	1,912	443	4.32	1,028.35	258.74	7.80	-
Torrey Pine Forest	0	0	0	0.00	0.00	0.00	0.00	n/a
Tecate Cypress Forest	0	0	0	0.00	0.00	0.00	0.00	n/a
Eucalyptus Woodland	53	41	12	3.42	13.33	4.71	1.08	-
Open Water	124	124	0	0.00	18.39	0.00	0.00	n/a
Disturbed Wetland	52	52	0	0.00	47.10	0.00	0.00	n/a
Natural Floodchannel	197	197	0	0.00	12.81	0.00	0.00	n/a
Shallow Bays	0	0	0	0.00	0.00	0.00	0.00	n/a
Pacific Ocean/Deep Bay	0	0	0	0.00	0.00	0.00	0.00	n/a
Disturbed Land	1,259	0	1,259	0.00	253.70	0.00	14.76	+
Agriculture	1,608	0	1,608	0.00	485.49	0.00	20.06	+

<b>County of San Diego</b>	<b>Total Subarea Habitat Preserve</b>	<b>Conservation Target</b>	<b>Estimated Take</b>	<b>Conservation Ratio</b>	<b>Cumulative Conservation Inside Habitat Preserve</b>	<b>Max. Allowable Impacts for the Current Period</b>	<b>Actual Loss Inside Habitat Preserve for Current Period</b>	<b>+ or - Max. Allowable Impacts</b>
Urban/Developed	0	0	0	0.00	29.99	0.00	29.25	+
<b>Total Acres for Agency: County of San Diego</b>					<b>31,356.32</b>		<b>221.76</b>	

Note: The Agriculture and Urban/Developed category is included to account for all land included within a project and habitat preserve planning area.

Summary

This report only pertains to the Metro-Lakeside-Jamul segment of the County's subarea plan. It includes gains that occur within the Preapproved Mitigation Area (PAMA) while counting all losses within the entire segment.

## **APPENDIX H**

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### Mitigation Bank Status

	Coast Live Oak Woodland	Coastal Sage Scrub	Disturbed/Ruderal	Engelmann Oak Woodland	Marsh/ Riparian Scrub/Floodplain	Mixed Chaparral	Native Grasslands	Non-Native Grasslands	Southern Willow Scrub	Southern Riparian/Oak Woodland	Totals
<b>Boden Canyon</b>											
Total	0.8	10.2	0	2.5	0	14.9	0.1	1	0	10	39.5
Used	0.8	10.2	0	2.5	0	0	0	0.32	0	10	23.82
Remaining	0	0	0	0	0	14.9	0.1	0.68	0	0	<b>15.68</b>
<b>Old Castle</b>											
Total	0.62	41.2	0	0	0	17.95	0	0	0.25	0	60.02
Used	0.62	40.856	0	0	0	3.53	0	0	0.11	0	45.116
Remaining	0	0.344	0	0	0	14.42	0	0	0.14	0	<b>14.904</b>
<b>Rancho San Diego</b>											
Total	4.8	226.2	80.3	0	2.4	19.6	3.4	0	0	72.5	409.2
Used	2.85	126.2597	6.215	0	0.34	7.63	0.51	0	0	16.7	160.5047
Remaining	1.95	99.9403	74.085	0	2.06	11.97	2.89	0	0	55.8	<b>248.6953</b>
<b>Singing Hills</b>											
Total	0	69.7	0	0	0	0	0	0	0	0	69.7
Used	0	0.695	0	0	0	0	0	0	0	0	0.695
Remaining	0	69.005	0	0	0	0	0	0	0	0	<b>69.005</b>
<b>Sweetwater</b>											
Total	0	0	0	0	24.33	0	0	0	0	0	24.33
Used	0	0	0	0	18.469	0	0	0	0	0	18.469
Remaining	0	0	0	0	5.861	0	0	0	0	0	<b>5.861</b>
<b>Total Remaining</b>	<b>1.95</b>	<b>169.2893</b>	<b>74.085</b>	<b>0</b>	<b>7.921</b>	<b>41.29</b>	<b>2.99</b>	<b>0.68</b>	<b>0.14</b>	<b>55.8</b>	<b>354.1453</b>

# **APPENDIX I**

COIs Issued for Agricultural Clearing

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	<b>Date Issued</b>	<b>APN</b>	<b>Permit Number</b>	<b>Site Name</b>	<b>Acres</b>
1	12/11/00	399-020-17	AE301	Gibson	28.60
2	03/16/01	513-080-23	AE01-005	Boney	2.00
3	01/14/04	285-030-10	AD03-051	Royden	9.86
4	01/14/04	327-011-03	AD03-051	Royden	42.72
5	08/09/04	375-171-03	AD 04-048	Shank	1.00
6	08/09/04	375-171-04	AD 04-048	Shank	1.00
7	3/31/2011	Portions of 389-091-05, -06, -25	None	High Meadow Ranch	6.55
8	8/10/2011	240-270-58, 242-010-71, -72, 242-030-37, -38, 242-031-03, 242-080-01, -07, 243-110-01, -04, 243-150-05, 244-020-04	AD 11-017	Rancho Guejito	763.00
9	10/13/2011	242-070-07	AD 09-058	Rockwood Ranch	29.30
10	2/12/2015	242-070-07	None	Rancho Guejito	13.77
11	7/2/2015	243-020-05, -07, -10, 243-030-02, 243-070-01,-08	PDS2015-LDGRMN-20025	Vineyard Ranch	35.9
12	12/3/2015	242-010-71, -73, 242-030-38, 242-070-09, -12, -13, -14, 242-270-57	PDS2015-LDGRMJ-30016	Rancho Guejito	279.1
13	1/14/2016	585-113-22	PDS2015-AD-15-013	Nencini	10.9
<b>Total</b>					<b>1,223.7</b>

## **APPENDIX J**

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### Species and Habitat Conservation in County Preserves

**List of Tables**

Table J-1. Habitat Conservation within Subarea Segments in County Preserves..... 2  
Table J- 2. MSCP Covered Species Documented in County Preserves ..... 9  
Table J- 3. MSCP Covered Species Documented by County Preserve ..... 18

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
<b>Barnett Ranch County Preserve</b>	<b>665</b>
Agriculture	112
Chaparral	310
Coastal Sage Scrub	95
Eucalyptus Woodland	<1
Grassland	143
Oak Woodland	5
Urban/Developed	1
<b>Boulder Oaks County Preserve</b>	<b>2,019</b>
Agriculture	1
Chaparral	1,575
Coastal Sage Scrub	104
Disturbed Land	15
Grassland	101
Oak Riparian Forest	24
Oak Woodland	187
Open Water	2
Urban/Developed	11
<b>Cactus County Park</b>	<b>62</b>
Agriculture	<1
Coastal Sage Scrub	38
Open Water	<1
Riparian Scrub	<1
Urban/Developed	22
<b>Damon Lane County Park</b>	<b>30</b>
Agriculture	<1
Coastal Sage Scrub	9
Eucalyptus Woodland	5
Grassland	1
Riparian Forest	10
Urban/Developed	5
<b>Del Dios Highlands County Preserve</b>	<b>269</b>
Chaparral	235
Coastal Sage Scrub	21
Disturbed Land	<1
Oak Woodland	5

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Urban/Developed	9
Dictionary Hill Preserve	176
Chaparral	23
Coastal Sage Scrub	147
Disturbed Land	2
Riparian Scrub	<1
Urban/Developed	4
Dos Picos County Park	78
Agriculture	1
Chaparral	29
Coastal Sage Scrub	2
Oak Woodland	24
Urban/Developed	21
El Capitan County Preserve	2,377
Chaparral	1,799
Coastal Sage Scrub	274
Coastal Sage-Chaparral Scrub	107
Disturbed Land	<1
Oak Riparian Forest	30
Oak Woodland	163
Urban/Developed	3
El Monte County Park	87
Chaparral	<1
Coastal Sage Scrub	30
Oak Riparian Forest	18
Oak Woodland	16
Riparian Scrub	1
Urban/Developed	22
Flinn Springs County Park	73
Chaparral	44
Coastal Sage-Chaparral Scrub	9
Disturbed Land	5
Oak Riparian Forest	12
Urban/Developed	4
Furby-North	79
Coastal Sage Scrub	44

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Disturbed Land	30
Grassland	4
Urban/Developed	1
<b>Goodan Ranch/Sycamore Canyon County Preserve</b>	<b>2,733</b>
Agriculture	30
Chaparral	1,712
Coastal Sage Scrub	690
Coastal Sage-Chaparral Scrub	25
Disturbed Land	2
Grassland	154
Oak Riparian Forest	35
Oak Woodland	80
Riparian Scrub	<1
Riparian Woodland	4
Urban/Developed	2
<b>Iron Mountain Preserve</b>	<b>162</b>
Chaparral	162
Oak Woodland	1
<b>Lakeside Linkage Preserve</b>	<b>209</b>
Coastal Sage Scrub	188
Disturbed Land	1
Grassland	<1
Urban/Developed	20
<b>Lawrence &amp; Barbara Daley Preserve</b>	<b>581</b>
Agriculture	<1
Chaparral	124
Coastal Sage Scrub	391
Coastal Sage-Chaparral Scrub	<1
Disturbed Land	5
Grassland	12
Oak Riparian Forest	49
Urban/Developed	<1
<b>Lindo Lake County Park</b>	<b>55</b>
Eucalyptus Woodland	10
Freshwater Marsh	2
Open Water	19

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Urban/Developed	23
Los Penasquitos Canyon County Preserve	199
Chaparral	72
Coastal Sage Scrub	6
Disturbed Land	14
Disturbed Wetland	1
Freshwater Marsh	3
Grassland	51
Riparian Scrub	2
Riparian Woodland	40
Urban/Developed	11
Louis A. Stelzer County Park	369
Chaparral	6
Coastal Sage Scrub	328
Grassland	15
Oak Riparian Forest	19
Urban/Developed	<1
Luelf Pond County Preserve	87
Chaparral	60
Oak Woodland	27
Urban/Developed	<1
Lusardi Creek County Preserve	226
Chaparral	30
Coastal Sage Scrub	138
Coastal Sage-Chaparral Scrub	3
Disturbed Land	12
Disturbed Wetland	1
Eucalyptus Woodland	1
Freshwater Marsh	2
Grassland	25
Natural Floodchannel/Streambed	1
Riparian Forest	3
Riparian Scrub	6
Urban/Developed	3
Oakosis County Preserve	391
Chaparral	338

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Grassland	8
Oak Woodland	43
Urban/Developed	3
Old Ironsides County Park	4
Oak Riparian Forest	3
Urban/Developed	1
Otay Lakes County Park	10
Coastal Sage Scrub	10
Shallow Bays	<1
Otay Ranch POM	3,964
Agriculture	14
Chaparral	615
Coastal Sage Scrub	2,486
Coastal Sage-Chaparral Scrub	118
Disturbed Land	<1
Eucalyptus Woodland	10
Freshwater Marsh	10
Grassland	231
Maritime Succulent Scrub	83
Natural Floodchannel/Streambed	122
Oak Riparian Forest	6
Oak Woodland	20
Riparian Scrub	41
Tecate Cypress Forest	160
Urban/Developed	48
Otay Valley Regional Park	433
Agriculture	58
Coastal Sage Scrub	268
Disturbed Land	1
Eucalyptus Woodland	<1
Freshwater Marsh	3
Grassland	45
Maritime Succulent Scrub	10
Riparian Forest	2
Riparian Scrub	18
Urban/Developed	27

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Peutz Valley	255
Chaparral	235
Coastal Sage Scrub	11
Coastal Sage-Chaparral Scrub	4
Oak Riparian Forest	4
Urban/Developed	1
<b>Ramona Grasslands County Preserve</b>	<b>533</b>
Agriculture	<1
Chaparral	292
Coastal Sage Scrub	227
Grassland	1
Oak Riparian Forest	6
Oak Woodland	1
Riparian Forest	2
Urban/Developed	2
<b>San Vicente</b>	<b>117</b>
Coastal Sage Scrub	114
Oak Riparian Forest	<1
Oak Woodland	4
<b>Santa Fe Valley Preserve</b>	<b>299</b>
Agriculture	18
Chaparral	47
Coastal Sage Scrub	170
Disturbed Land	2
Disturbed Wetland	<1
Eucalyptus Woodland	4
Freshwater Marsh	14
Grassland	15
Natural Floodchannel/Streambed	2
Oak Riparian Forest	<1
Oak Woodland	1
Open Water	4
Riparian Forest	6
Riparian Scrub	11
Urban/Developed	4

**TABLE J-1. HABITAT CONSERVATION WITHIN SUBAREA SEGMENTS IN COUNTY PRESERVES**

Preserve/Habitat Types	Acres
Skyline Preserve	262
Chaparral	240
Coastal Sage Scrub	15
Oak Woodland	7
Stoneridge Preserve	247
Chaparral	67
Coastal Sage Scrub	155
Coastal Sage-Chaparral Scrub	7
Oak Riparian Forest	15
Oak Woodland	3
Urban/Developed	<1
Sweetwater Regional Park	186
Grassland	148
Urban/Developed	37
Tijuana River Valley Regional Park	1,779
Agriculture	641
Bog and Marsh	13
Coastal Sage Scrub	257
Disturbed Land	21
Disturbed Wetland	11
Eucalyptus Woodland	<1
Freshwater Marsh	1
Grassland	11
Open Water	105
Riparian Scrub	549
Urban/Developed	168

SOURCE: County of San Diego, LUEG-GIS

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
<b>Plants</b>			
Aphanisma			
California Orcutt grass			
Coast (San Diego) barrel cactus <i>6 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Dictionary Hill Preserve<sup>a</sup></li> <li>• Furby-North Property</li> <li>• Lusardi Creek Preserve</li> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Tijuana River Valley Regional Park</li> </ul>
Coast wallflower			
Coastal (Shaw's) agave			
Coastal Dunes Milkvetch			
Dehesa beargrass			
Del Mar manzanita <i>1 County Preserve</i>	✓		<ul style="list-style-type: none"> <li>• Lusardi Creek Preserve</li> </ul>
Del Mar Mesa sandaster			
Dunn's mariposa lily <i>2 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> </ul>
Encinitas Baccharis <i>1 County Preserve</i>	✓		<ul style="list-style-type: none"> <li>• Del Dios Highlands Preserve</li> </ul>
Felt-leaved monardella <i>2 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Boulder Oaks Preserve</li> <li>• El Capitan Preserve</li> </ul>
Fire (Dense) redgrass			
Gander's butterweed			
Gander's pitcher sage <i>1 County Preserve</i>	✓		<ul style="list-style-type: none"> <li>• Otay Ranch Preserve</li> </ul>
Heart-leaf pitcher sage			
Lakeside ceanothus <i>4 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Boulder Oaks Preserve</li> <li>• El Capitan Preserve</li> <li>• Louis A. Stelzer Park</li> <li>• Oakoasis Preserve</li> </ul>
Nevin's barberry			
Orcutt's bird's beak <i>1 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park</li> </ul>
Orcutt's brodiaea <i>2 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Boulder Oaks Preserve</li> <li>• Otay Ranch Preserve</li> </ul>

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Otay manzanita <i>1 County Preserve</i>	✓		• Otay Ranch Preserve
Otay mesa mint <i>1 County Preserve</i>	✓		• Otay Ranch Preserve
Otay tarplant <i>2 County Preserves</i>	✓		• Furby-North Property • Otay Ranch Preserve
Palmer's goldenbush (Palmer's ericameria) <i>2 County Preserves</i>	✓		• Lawrence and Barbara Daley Preserve • Otay Ranch Preserve
Parry's tetraococcus			
Prostrate/Nuttall's lotus			
Purple (Narrow-leaved) nightshade			
Salt marsh bird's beak			
San Diego ambrosia			
San Diego button-celery <i>1 County Preserve</i>	✓		• Otay Ranch Preserve
San Diego goldenstar <i>4 County Preserves</i>	✓		• Dictionary Hill Preserve • Louis A. Stelzer Park • Otay Ranch Preserve • San Vicente Connection
San Diego mesa mint			
San Diego thorn-mint <i>1 County Preserve</i>	✓		• Sycamore Canyon and Goodan Ranch Preserve
San Miguel savory <i>2 County Preserves</i>	✓		• Boulder Oaks Preserve • Otay Ranch Preserve
Short-leaf dudleya			
Slender-pod jewelflower (California mustard)			
Small-leaved rose			
Snake cholla <i>1 County Preserves</i>	✓	✓	• Furby-North Property <sup>a</sup>
Spreading (Prostrate) navarretia			
Sticky dudleya			
Tecate cypress <i>1 County Preserves</i>	✓		• Otay Ranch Preserve
Thread-leaf brodiaea			

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Torrey pine <i>1 County Preserve</i>		✓	<ul style="list-style-type: none"> <li>• Tijuana River Valley Regional Park<sup>a</sup> (planted)</li> </ul>
Variegated dudleya <i>5 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Dictionary Hill Preserve</li> <li>• Lusardi Creek Preserve</li> <li>• Otay Lakes Regional Park</li> <li>• Otay Ranch Preserve</li> <li>• Sycamore Canyon / Goodan Ranch Preserve</li> </ul>
Wart-stemmed ceanothus <i>2 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Del Dios Highlands Preserve</li> <li>• Tijuana River Valley Regional Park</li> </ul>
Willow monardella <i>1 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> </ul>
<b>Invertebrates</b>			
Riverside fairy shrimp			
San Diego fairy shrimp			
Thorne's hairstreak butterfly			
Wandering skipper			
<b>Amphibians and Reptiles</b>			
Arroyo toad			
Belding's orange-throated whiptail <i>14 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve</li> <li>• Boulder Oaks Preserve<sup>a</sup></li> <li>• Del Dios Highlands Preserve<sup>a</sup></li> <li>• Dictionary Hill Preserve<sup>a</sup></li> <li>• El Capitan Preserve</li> <li>• Furby-North Property</li> <li>• Lakeside Linkage Preserve</li> <li>• Lawrence and Barbara Daley Preserve</li> <li>• Louis A Stelzer Park<sup>a</sup></li> <li>• Lusardi Creek Preserve</li> <li>• Ramona Grasslands Preserve</li> <li>• Stoneridge Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Tijuana River Valley Preserve</li> </ul>
California red-legged frog			

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Blainville's (Coast, San Diego) horned lizard <i>16 County Preserve</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve</li> <li>• Boulder Oaks Preserve <sup>a</sup></li> <li>• Del Dios Highlands Preserve <sup>a</sup></li> <li>• Dictionary Hill Preserve</li> <li>• El Capitan Preserve <sup>a</sup></li> <li>• Furby-North Property<sup>a</sup></li> <li>• Lakeside Linkage Preserve</li> <li>• Lawrence and Barbara Daley Preserve</li> <li>• Luelf Pond Preserve <sup>a</sup></li> <li>• Lusardi Creek Preserve</li> <li>• Oakoasis Preserve <sup>a</sup></li> <li>• Ramona Grasslands Preserve</li> <li>• San Vicente Connection</li> <li>• Stoneridge Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Tijuana River Valley Preserve <sup>a</sup></li> </ul>
Southwestern pond turtle			
<b>Birds</b>			
Bald eagle <i>1 County Preserve</i>		✓	<ul style="list-style-type: none"> <li>• Ramona Grasslands Preserve<sup>a</sup></li> </ul>
Belding's savannah sparrow			
Burrowing owl <i>2 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Otay Ranch Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve<sup>a</sup></li> </ul>
California brown pelican			
California least tern			

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
California rufous-crowned sparrow <i>17 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Boulder Oaks Preserve<sup>a</sup></li> <li>• Del Dios Highlands Preserve<sup>a</sup></li> <li>• Dictionary Hill Preserve<sup>a</sup></li> <li>• El Capitan Preserve<sup>a</sup></li> <li>• El Monte Park<sup>a</sup></li> <li>• Furby-North Preserve<sup>a</sup></li> <li>• Iron Mountain Preserve</li> <li>• Lakeside Linkage Preserve<sup>a</sup></li> <li>• Lawrence and Barbara Daley Preserve<sup>a</sup></li> <li>• Louis A. Stelzer Park<sup>a</sup></li> <li>• Lusardi Creek Preserve<sup>a</sup></li> <li>• Oakoasis Preserve<sup>a</sup></li> <li>• San Vicente Connection</li> <li>• Stoneridge Preserve<sup>a</sup></li> <li>• Sycamore Canyon amd Goodan Ranch Preserve<sup>a</sup></li> <li>• Tijuana River Valley Regional Park<sup>a</sup></li> </ul>
Canada goose			
Coastal (San Diego) Cactus wren <i>3 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Furby-North Property</li> <li>• Lakeside Linkage Preserve</li> <li>• Otay Ranch Preserve</li> </ul>
Coastal California gnatcatcher <i>14 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Boulder Oaks Preserve</li> <li>• Del Dios Highlands Preserve</li> <li>• Dictionary Hill Preserve</li> <li>• Furby-North Property</li> <li>• Lakeside Linkage Preserve</li> <li>• Louis A. Stelzer Park</li> <li>• Lusardi Creek Preserve</li> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Santa Fe Valley Preserve</li> <li>• Stoneridge Preserve</li> <li>• Sweetwater Regional Park</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> <li>• Tijuana River Valley Regional Park</li> </ul>

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Cooper's hawk <i>14 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Boulder Oaks Preserve<sup>a</sup></li> <li>• Del Dios Highlands Preserve</li> <li>• Dictionary Hill Preserve<sup>a</sup></li> <li>• El Capitan Preserve<sup>a</sup></li> <li>• Holly Oaks Preserve<sup>a</sup></li> <li>• Lakeside Linkage Preserve<sup>a</sup></li> <li>• Lawrence and Barbara Daley Preserve<sup>a</sup></li> <li>• Luelf Pond Preserve<sup>a</sup></li> <li>• Lusardi Creek Preserve</li> <li>• Oakoasis Preserve<sup>a</sup></li> <li>• Stoneridge Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve<sup>a</sup></li> <li>• Tijuana River Valley Regional Park</li> </ul>
Elegant tern			
Ferruginous hawk <i>1 County Preserve</i>		✓	<ul style="list-style-type: none"> <li>• Del Dios Highlands Preserve<sup>a</sup></li> </ul>
Golden eagle <i>6 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Del Dios Highlands Preserve</li> <li>• El Capitan Preserve</li> <li>• Luelf Pond Preserve<sup>a</sup></li> <li>• Ramona Grasslands Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve<sup>a</sup></li> </ul>
Large-billed savannah sparrow			
Least Bell's vireo <i>8 County Preserves</i>	✓		<ul style="list-style-type: none"> <li>• Cactus Park</li> <li>• Furby-North Property</li> <li>• Los Penasquitos Canyon Preserve</li> <li>• Lusardi Creek Preserve</li> <li>• Otay Ranch Preserve</li> <li>• Otay Valley Regional Park</li> <li>• Sweetwater Regional Park</li> <li>• Tijuana River Valley Regional Park</li> </ul>
Light-footed Ridgway's rail			
Long-billed curlew			
Mountain plover			

TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Northern harrier <i>7 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Del Dios Highlands Preserve</li> <li>• Furby-North Property<sup>a</sup></li> <li>• Lawrence and Barbara Daley Preserve<sup>a</sup></li> <li>• Louis A. Stelzer Preserve</li> <li>• Lusardi Creek Preserve<sup>a</sup></li> <li>• Sycamore Canyon and Goodan Ranch Preserve<sup>a</sup></li> <li>• Tijuana River Valley Regional Park</li> </ul>
Peregrine falcon <i>2 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Del Dios Highlands</li> <li>• Tijuana River Valley<sup>a</sup></li> </ul>
Reddish egret			
Snowy plover			
Southwestern willow flycatcher			
Swainson's hawk <i>1 County Preserve</i>		✓	<ul style="list-style-type: none"> <li>• Holly Oaks<sup>a</sup></li> </ul>
Tricolored blackbird <i>3 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Holly Oaks Preserve<sup>a</sup></li> <li>• Ramona Grasslands Preserve</li> <li>• Tijuana River Valley Regional Park</li> </ul>
Western bluebird <i>12 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Boulder Oaks Preserve<sup>a</sup></li> <li>• Del Dios Highlands Preserve<sup>a</sup></li> <li>• El Capitan Preserve<sup>a</sup></li> <li>• El Monte Park<sup>a</sup></li> <li>• Holly Oaks Preserve<sup>a</sup></li> <li>• Lakeside Linkage Preserve<sup>a</sup></li> <li>• Lawrence and Barbara Daley Preserve</li> <li>• Luelf Pond Preserve<sup>a</sup></li> <li>• Oakoasis Preserve<sup>a</sup></li> <li>• Stoneridge Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> </ul>
White-faced ibis <i>1 County Preserve</i>		✓	<ul style="list-style-type: none"> <li>• Del Dios Highlands Preserve<sup>a</sup></li> </ul>
<b>Mammals</b>			
American badger			

**TABLE J- 2. MSCP COVERED SPECIES DOCUMENTED IN COUNTY PRESERVES**

MSCP Covered Species	Documented in County Preserves		County Preserve or Park
	GIS source	Other Source	
Mountain lion <i>4 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Boulder Oaks Preserve<sup>a</sup></li> <li>• Luelf Pond Preserve<sup>a</sup></li> <li>• Sycamore Canyon and Goodan Ranch Preserve<sup>a</sup></li> </ul>
Southern mule deer <i>13 County Preserves</i>	✓	✓	<ul style="list-style-type: none"> <li>• Barnett Ranch Preserve<sup>a</sup></li> <li>• Boulder Oaks Preserve</li> <li>• Del Dios Highlands Preserve</li> <li>• El Capitan Preserve</li> <li>• El Monte Park<sup>a</sup></li> <li>• Lakeside Linkage Preserve<sup>a</sup></li> <li>• Lawrence and Barbara Daley Preserve<sup>a</sup></li> <li>• Louis A. Stelzer Preserve</li> <li>• Oakoasis Preserve</li> <li>• Otay Ranch Preserve<sup>a</sup></li> <li>• Ramona Grasslands Preserve<sup>a</sup></li> <li>• Stoneridge Preserve</li> <li>• Sycamore Canyon and Goodan Ranch Preserve</li> </ul>

**NOTES:**

<sup>a</sup> Species documented in County Preserve in a report rather than in GIS. Reports are referenced in the sources below.

**SOURCES:**

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U.S. Fish and Wildlife Service. 2020. Sensitive Species (polygons). Occurrence polygons documenting species sightings from 1998 to present included for MSCP species occurrences.

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**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

<b>County Preserves</b>	<b>MSCP Covered Species Documented</b>
<b>Barnett Ranch County Preserve</b>	<i>9 MSCP covered species</i>
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard
Birds	Cooper's hawk <sup>a</sup>
	Golden eagle <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>
	Swainson's hawk <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Mountain lion <sup>a</sup>
	Southern mule deer <sup>a</sup>
<b>Boulder Oaks County Preserve</b>	<i>11 MSCP covered species</i>
Plants	Felt-leaved monardella
	Lakeside ceanothus
	Orcutt's brodiaea
	San Miguel savory
Reptiles	Belding's orange-throated whiptail <sup>a</sup>
	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
	Coastal California gnatcatcher
Birds	Cooper's hawk <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Southern mule deer
<b>Cactus County Park</b>	<i>1 MSCP covered species</i>
Birds	Least Bell's vireo
<b>Del Dios Highlands County Preserve</b>	<i>14 MSCP covered species</i>
Plants	Encinitas baccharis
	Wart-stemmed ceanothus
Reptiles	Belding's orange-throated whiptail <sup>a</sup>
	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
Birds	Coastal California gnatcatcher
	Cooper's hawk
	Golden eagle
	Northern harrier
	Peregrine falcon
	Southern California rufous-crowned sparrow <sup>a</sup>
	Ferruginous hawk <sup>a</sup>

**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

<b>County Preserves</b>	<b>MSCP Covered Species Documented</b>
	White-faced Ibis <sup>a</sup>
	Western bluebird
Mammals	Southern mule deer
<b>Dictionary Hill County Preserve</b>	<b>8 MSCP covered species</b>
Plants	Coast (San Diego) barrel cactus <sup>a</sup>
	San Diego goldenstar
	Variiegated dudleya
Reptiles	Blainville's (Coast, San Diego) horned lizard
	Belding's orange-throated whiptail <sup>a</sup>
Birds	Coastal California gnatcatcher
	Cooper's Hawk <sup>a</sup>
	Southern California Rufous-crowned sparrow <sup>a</sup>
<b>El Capitan County Preserve</b>	<b>9 MSCP covered species</b>
Plants	Felt-leaved monardella
	Lakeside ceanothus
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
Birds	Cooper's hawk <sup>a</sup>
	Golden eagle
	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Southern mule deer
<b>El Monte County Park</b>	<b>3 MSCP covered species</b>
Birds	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Southern mule deer <sup>a</sup>
<b>Furby-North County Preserve</b>	<b>10 MSCP covered species</b>
Plants	Coast (San Diego) barrel cactus
	Otay tarplant
	Snake cholla <sup>a</sup>
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
Birds	Coastal cactus wren
	Coastal California gnatcatcher
	Least Bell's vireo
	Northern harrier <sup>a</sup>

**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

County Preserves	MSCP Covered Species Documented
	Southern California rufous-crowned sparrow <sup>a</sup>
<b>Iron Mountain Preserve</b>	<b>1 MSCP Covered Species</b>
Birds	California rufous-crowned sparrow
<b>Lakeside Linkage County Preserve</b>	<b>8 MSCP Covered Species</b>
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard
Birds	Coastal cactus wren
	Coastal California gnatcatcher
	Cooper's hawk <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Southern mule deer <sup>a</sup>
<b>Lawrence and Barbara Daley County Preserve</b>	<b>8 MSCP covered species</b>
Plants	Palmer's goldenbush
Reptiles	Blainville's (Coast, San Diego) horned lizard
	Belding's orange-throated whiptail
Birds	Cooper's hawk
	Northern harrier
	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird
Mammals	Southern mule deer <sup>a</sup>
<b>Los Penasquitos Canyon County Preserve</b>	<b>1 MSCP covered species</b>
Birds	Least Bell's vireo
<b>Louis A. Stelzer County Park</b>	<b>8 MSCP covered species</b>
Plants	Lakeside ceanothus
	San Diego goldenstar
Reptiles	Belding's orange-throated whiptail <sup>a</sup>
	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
Birds	Coastal California gnatcatcher
	Northern harrier <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>
Mammals	Southern mule deer
<b>Lusardi Creek County Preserve</b>	<b>10 MSCP covered species</b>
Plants	Coast (San Diego) barrel cactus
	Del Mar manzanita
	Variegated dudleya

**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

<b>County Preserves</b>	<b>MSCP Covered Species Documented</b>
Reptiles	Blainville's (Coast, San Diego) horned lizard
Birds	Coastal California gnatcatcher
	Cooper's hawk
	Least Bell's vireo
	Northern harrier
	Southern California rufous-crowned sparrow
Mammals	Southern mule deer <sup>a</sup>
<b>Oakoasis County Preserve</b>	<b>6 MSCP covered species</b>
Plants	Lakeside ceanothus
Reptiles	Blainville's (Coast, San Diego) horned lizard <sup>a</sup>
Birds	Cooper's hawk <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>
	Western bluebird <sup>a</sup>
Mammals	Southern mule deer
<b>Otay Lakes County Park</b>	<b>1 MSCP covered species</b>
Plants	Variegated dudleya
<b>Otay Ranch Preserve</b>	<b>17 MSCP covered species</b>
Plants	Coast (San Diego) barrel cactus
	Dunn's mariposa lily
	Gander's pitcher sage
	Orcutt's brodiaea
	Otay manzanita
	Otay Mesa mint
	Otay tarplant
	Palmer's goldenbush
	San Diego button-celery
	San Diego goldenstar
	San Miguel savory
	Tecate cypress
	Variegated dudleya
Birds	Burrowing owl
	Coastal Cactus wren
	Coastal California gnatcatcher
	Least Bell's vireo
<b>Otay Valley Regional Park</b>	<b>2 MSCP covered species</b>
Birds	Coastal California gnatcatcher

**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

<b>County Preserves</b>	<b>MSCP Covered Species Documented</b>
	Least Bell's vireo
<b>Ramona Grasslands County Preserve</b>	<b>5 MSCP covered species</b>
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard
Birds	Bald eagle
	Golden eagle
Mammals	Southern mule deer
<b>San Vicente Connection</b>	<b>3 MSCP covered species</b>
Plants	San Diego goldenstar
Reptiles	Blainville's (Coast, San Diego) horned lizard
Birds	California rufous-crowned sparrow
<b>Santa Fe Valley Preserve</b>	<b>1 MSCP covered species</b>
Birds	Coastal California gnatcatcher
<b>Stoneridge County Preserve</b>	<b>7 MSCP covered species</b>
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard
Birds	Coastal California gnatcatcher
	Cooper's hawk
	Southern California rufous-crowned sparrow
	Western bluebird
Mammals	Southern mule deer
<b>Sweetwater Regional Park</b>	<b>2 MSCP covered species</b>
Birds	Coastal California gnatcatcher
	Least Bell's vireo
<b>Sycamore Canyon and Goodan Ranch County Preserve</b>	<b>14 MSCP covered species</b>
Plants	San Diego thorn-mint
	Variiegated dudleya
	Willow monardella
Reptiles	Belding's orange-throated whiptail
	Blainville's (Coast, San Diego) horned lizard
Birds	Burrowing owl <sup>a</sup>
	Coastal California gnatcatcher
	Cooper's hawk <sup>a</sup>
	Golden eagle <sup>a</sup>
	Northern harrier <sup>a</sup>
	Southern California rufous-crowned sparrow <sup>a</sup>

**TABLE J- 3. MSCP COVERED SPECIES DOCUMENTED BY COUNTY PRESERVE**

County Preserves	MSCP Covered Species Documented
	Western bluebird
Mammals	Mountain lion <sup>a</sup>
	Southern mule deer
<b>Tijuana River Valley Regional Park</b>	<b>12 MSCP covered species</b>
Plants	Coast (San Diego) barrel cactus
	Orcutt's bird's-beak
	Torrey pine <sup>a</sup> (planted)
	Wart-stemmed ceanothus
Reptiles	Belding's orange-throated whiptail
	Blainville's horned lizard <sup>a</sup>
Birds	Coastal California gnatcatcher
	Cooper's hawk
	Least Bell's vireo
	Northern harrier
	Southern California rufous-crowned sparrow <sup>a</sup>
	Tricolored blackbird

**NOTES:**

<sup>a</sup> Species documented in County Preserve in a report rather than in GIS. Reports are referenced in the sources below.

**SOURCES:**

AECOM. 2019. Baseline Biodiversity Survey Report for the Holly Oaks County Park, Luelf Pond Preserve, and Barnett Ranch Preserve Properties County of San Diego Department of Parks and Recreation. Prepared for Department of Parks and Recreation County of San Diego. June.

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County of San Diego Department of Parks and Recreation. 2007. Tijuana River Valley Regional Park Area Specific Management Objectives. June.

Environmental Science Associates. 2019. Baseline Biodiversity Report for the Dictionary Hill Preserve County of San Diego Department of Parks and Recreation. Prepared for Department of Parks and Recreation County of San Diego. October

Helix. 2019. Baseline Biodiversity Survey Report Tijuana River Valley Regional Park. Prepared for Department of Parks and Recreation County of San Diego. August.

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## **APPENDIX K**

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### Stewardship and Adaptive Management in County Parks and Preserves in Reporting Year

Preserve	Status	Habitat Restoration	Hazardous or Non-Native Tree Removal	Invasive Species Control	Access Control, Trail and infrastructure installation and maintenance	Fire Management	Environmental Education	Research
Barnett Ranch Preserve	Open	<ul style="list-style-type: none"> <li>Repaired solar well that provides drinking water for preserve wildlife</li> <li>Plant maintenance for 2-acre restoration area</li> </ul>	n/a	7 acres <ul style="list-style-type: none"> <li>goats head</li> <li>Russian thistle</li> <li>milk thistle</li> </ul>	<ul style="list-style-type: none"> <li>18 new trail and staging area signs installed</li> <li>Daily patrols to prevent dumping and littering</li> </ul>	3-acre firebreak maintained	6 programs 140 visitors	n/a
Boulder Oaks Preserve	Open	110 trees planted <ul style="list-style-type: none"> <li>30 coast live oaks</li> <li>70 Engelmann oaks</li> <li>10 western sycamores</li> </ul> Irrigation installed for plant establishment	23 trees removed	18 acres <ul style="list-style-type: none"> <li>black mustard</li> <li>Dyer's rocket</li> <li>milk thistle</li> </ul>	<ul style="list-style-type: none"> <li>4 public access signs installed</li> <li>Repaired one 10-ft. fence, one 300-ft. fence, and installed one new metal gate</li> <li>Game cameras installed to monitor illegal access</li> </ul>	firebreak maintained	3 programs 30 visitors	Yes
Cactus Park	Open	n/a	1 tree removed 30 trees trimmed	n/a	n/a	2.5-acre firebreak maintained	n/a	n/a
Damon Lane Park	Open	6 coast live oak trees planted in 2018 watered for establishment	n/a	n/a	n/a	1.0-acre firebreak maintained	n/a	n/a
Del Dios Highlands Preserve	Open	n/a	303 trees removed	4 acres of black mustard	<ul style="list-style-type: none"> <li>brushed out illegal trail</li> <li>2 new sign installed</li> <li>1 new 24 ft concrete fence installed</li> </ul>	3.5-acre firebreak maintained along SDGE trail	n/a	n/a
Dictionary Hill Preserve	Open	Cutting and planting of Beavertail cactus along unapproved trail (1 acre)	n/a	32 acres of black mustard	<ul style="list-style-type: none"> <li>3 new signs for rules and dog stations</li> <li>1 chain fence on East Ivy trail repaired</li> <li>Wildlife study initiated to inform new trail construction</li> </ul>	firebreak maintained	2 ranger-led hikes 150 visitors	Yes

Preserve	Status	Habitat Restoration	Hazardous or Non-Native Tree Removal	Invasive Species Control	Access Control, Trail and infrastructure installation and maintenance	Fire Management	Environmental Education	Research
Dos Picos Park	Open	93 trees planted <ul style="list-style-type: none"> <li>60 coast live oaks</li> <li>3 alders</li> <li>10 jacarandas</li> <li>10 palo verdes</li> <li>10 redbuds</li> </ul> 170 non-tree species planted	10 trees removed	8.5 acres of black mustard	<ul style="list-style-type: none"> <li>Planted native shrubs along trail and cabins</li> <li>15 cabin signs installed</li> <li>Repaired 2 wooden fences</li> </ul>	1.5-acre firebreak maintained	guided hikes live animal showings fire safety talks 1550 visitors	Yes
El Capitan Preserve	Open	Trail maintenance to prevent sediment traps and erosion	n/a	4 acres of pampas grass	<ul style="list-style-type: none"> <li>Increased patrol frequency to prevent car break-ins.</li> <li>Vegetation removal for security and fire prevention</li> </ul>	0.5-acre firebreak maintained	3 programs 614 visitors	n/a
El Monte Park	Open	38 trees planted <ul style="list-style-type: none"> <li>21 coast live oaks</li> <li>6 Engelmann oaks</li> <li>3 Raywood ashes</li> <li>4 CA black walnuts</li> <li>2 sweet gums</li> <li>2 Western redbuds</li> </ul> Weed management within mitigation site for Helix Flume Trail (106 plants installed)	2 trees removed	21.25 acres <ul style="list-style-type: none"> <li>puncture vine</li> <li>goats head</li> <li>fox tails</li> <li>cheese weed</li> <li>stinging nettle</li> <li>tree tobacco</li> <li>tumbleweed</li> <li>black mustard</li> </ul>	<ul style="list-style-type: none"> <li>5 new signs installed</li> <li>Repaired 60-ft concrete fence</li> <li>Patrols increased to prevent unauthorized trails use and graffiti</li> </ul>	Firebreak around ranger office, garage and ranger residence maintained	11 programs 536 visitors	Yes
Flinn Springs Park	Open	36 trees planted <ul style="list-style-type: none"> <li>21 coast live oaks</li> <li>15 Engelmann oaks</li> </ul> 10 shrubs planted <ul style="list-style-type: none"> <li>white sage</li> <li>Cleveland sage</li> </ul>	n/a	0.45 acres <ul style="list-style-type: none"> <li>star thistle</li> <li>black mustard</li> <li>castor bean</li> </ul>	0.25 miles of trail rehabilitation	firebreak maintained	17 programs 1087 visitors	Yes
Furby-North Property	Open	n/a	n/a	property boundary treatment of stinknet	<ul style="list-style-type: none"> <li>4 new signs installed</li> <li>2 signs repaired</li> <li>1 new 3-wire fence (200-ft.)</li> </ul>	n/a	n/a	n/a

Preserve	Status	Habitat Restoration	Hazardous or Non-Native Tree Removal	Invasive Species Control	Access Control, Trail and infrastructure installation and maintenance	Fire Management	Environmental Education	Research
Lakeside Linkage Preserve	Open	<p>Trees planted</p> <ul style="list-style-type: none"> <li>• 1 oak</li> <li>• 3 bottle brush trees</li> <li>• 21 jacarandas</li> <li>• 18 crepe myrtle trees</li> <li>• 3 strawberry trees</li> </ul> <p>393 shrubs and perennials planted</p> <p>Habitat Restoration (5 acres)</p> <ul style="list-style-type: none"> <li>• 500 cactus</li> <li>• 500 spiny redberry</li> <li>• 500 buckwheat</li> </ul>	<p>17 trees removed</p> <p>390 trees trimmed</p>	<p>10.75 acres</p> <ul style="list-style-type: none"> <li>• Russian thistle</li> <li>• tumble weed</li> </ul>	<ul style="list-style-type: none"> <li>• Habitat restoration projects</li> <li>• 2 fences repaired</li> </ul>	<p>firebreak maintained</p>	<p>6 programs</p> <p>487 Visitors</p>	<p>Yes</p>
Lawrence and Barbara Daley Preserve	Open	<p>150 Trees planted</p> <ul style="list-style-type: none"> <li>• 140 oaks</li> <li>• 10 sycamores</li> </ul>		<p>15 acres</p> <ul style="list-style-type: none"> <li>• buckwheat</li> <li>• black mustard</li> </ul> <p>50 trees infected by shot hole borer removed</p>	<ul style="list-style-type: none"> <li>• 13 new signs installed</li> <li>• 1 new 2000-ft. fence installed</li> </ul>	<p>3-acre firebreak maintained</p>	<p>3 programs</p> <p>37 visitors</p>	<p>n/a</p>
Los Penasquitos Canyon Preserve	Open	<p>57 trees planted</p> <ul style="list-style-type: none"> <li>• 17 coast live oaks</li> <li>• 12 Fremont cottonwood</li> <li>• 10 western sycamores</li> <li>• 18 toyon trees</li> </ul> <p>54 shrubs, perennials, and cacti planted</p>	<p>10 trees removed</p>	<p>46 acres</p> <ul style="list-style-type: none"> <li>• star thistle</li> <li>• Russian thistle</li> <li>• honey mesquite</li> <li>• fennel</li> <li>• black mustard</li> <li>• stinkwort</li> <li>• curly dock</li> </ul>	<ul style="list-style-type: none"> <li>• Revegetation, erosion control, trail repair and blockage of unofficial trail</li> <li>• 11 new directional signs installed</li> <li>• 1 wooden gate repaired</li> </ul>	<p>4-acre firebreak maintained</p>	<p>3 programs</p> <p>1149 visitors</p>	<p>n/a</p>

Preserve	Status	Habitat Restoration	Hazardous or Non-Native Tree Removal	Invasive Species Control	Access Control, Trail and infrastructure installation and maintenance	Fire Management	Environmental Education	Research
Luelf Pond Preserve	Open	21 coast live oaks planted	1 tree removed	4 acres <ul style="list-style-type: none"> <li>tobacco tree</li> <li>black mustard</li> </ul>	4 new signs installed	1-acre firebreak maintained	n/a	n/a
Lusardi Creek Preserve	Open	n/a	n/a	4.5 acres of arundo	n/a	1.6-acre firebreak maintained	n/a	n/a
Oakoasis Preserve	Open	5 coast live oaks planted	n/a	29 acres <ul style="list-style-type: none"> <li>stinkwort</li> <li>pampas grass</li> <li>poison oak</li> </ul>	<ul style="list-style-type: none"> <li>Closure and rerouting of trail that led off the preserve</li> <li>6 new signs installed</li> <li>2 new fences installed</li> </ul>	Maintained firebreaks around ranger residence and volunteer pads	6 programs 1345 visitors	Yes
Otay Lakes County Park	Open	28 shrubs and perennials planted	2 trees removed	30 acres		firebreak maintained	8 hikes 1 touch table 112 visitors	n/a
Otay Valley Regional Park	Open	n/a	n/a	7 acres	20 new signs installed and patrols increased to prevent illegal use of motorized vehicles.	n/a	2 program 190 visitors	n/a
Ramona Grasslands Preserve	Open	Trees planted <ul style="list-style-type: none"> <li>31 coast live oaks</li> <li>10 cottonwoods</li> </ul>	4 trees removed	32 acres <ul style="list-style-type: none"> <li>tobacco tree</li> <li>tamarisk</li> <li>Russian thistle</li> </ul>	<ul style="list-style-type: none"> <li>4,700-ft. fence repair to stop unauthorized trail use</li> <li>15 new signs installed</li> <li>1 new 40-ft concrete fence and 1 metal gate repaired</li> </ul>	n/a	44 programs 859 visitors	Yes
Louis A. Stelzer Park	Open	Collected acorns for fall planting	6 trees removed	24 acres <ul style="list-style-type: none"> <li>castor bean</li> <li>black mustard</li> </ul>	<ul style="list-style-type: none"> <li>4 signs repaired</li> <li>Main bridge repaired</li> <li>Retaining wall repaired</li> <li>Worn-out railings repaired</li> <li>Visitor center lock upgraded</li> </ul>	firebreak maintained	15 programs 2000 visitors	Yes
Stoneridge Preserve	Open	n/a	n/a	1 acre of black mustard	n/a	firebreak maintained along Kelley Drive	n/a	n/a

Preserve	Status	Habitat Restoration	Hazardous or Non-Native Tree Removal	Invasive Species Control	Access Control, Trail and infrastructure installation and maintenance	Fire Management	Environmental Education	Research
Sweetwater Regional Park	Open	34 trees planted <ul style="list-style-type: none"> <li>13 incense cedars</li> <li>7 Engelmann oaks</li> <li>3 coast live oaks</li> <li>2 Torrey pines</li> <li>2 Italian stone pines</li> <li>7 palo verde trees</li> </ul> 66 shrubs and perennials	24 trees removed	26 acres <ul style="list-style-type: none"> <li>tamarisk</li> <li>Mexican palm</li> <li>canary palm</li> <li>eucalyptus</li> </ul>	<ul style="list-style-type: none"> <li>homeless encampments restored</li> <li>22 new signs installed (stop signs, no parking, no smoking and biking signs)</li> <li>3 new fences installed</li> <li>1 fence replaced</li> </ul>	firebreak maintained	7 programs 1160 visitors	Yes
Sycamore Canyon/ Goodan Ranch Preserve	Open	<ul style="list-style-type: none"> <li>46 coast live oak trees planted</li> <li>26 shrubs, perennials, and cacti</li> </ul>	3 trees removed	8 acres <ul style="list-style-type: none"> <li>black mustard</li> <li>tamarisk</li> <li>pampas grass</li> </ul>	<ul style="list-style-type: none"> <li>Repaired water bars along access routes</li> <li>1 new kiosks installed</li> <li>11 new bat boxes installed</li> <li>5 new signs installed</li> <li>1 new gate installed</li> <li>1 gate repaired</li> </ul>	firebreak maintained around staging area, roadways, and visitor center	6 programs 96 visitors	Yes
Tijuana River Valley Regional Park	Open	n/a	n/a	7 acres <ul style="list-style-type: none"> <li>Russian thistle castor bean</li> <li>giant reed pokeweed</li> <li>tobacco tree</li> <li>nasturtium</li> <li>grasses (<i>poaceae</i>)</li> </ul> Kuroshio shot hole borer treatments	<ul style="list-style-type: none"> <li>3 shade trees planted</li> <li>6 new directional enforcement installed</li> <li>8 new informational signs installed</li> <li>1 new 3-wire fence installed</li> <li>1 lodge pole fence repaired</li> </ul>	2-acre firebreak maintained	10 programs 90 visitors	n/a

# **APPENDIX L**

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Private Mitigation Land Monitoring and Maintenance in Reporting Year

	RMP Number	RMP Name	RMP Date	Habitat Manager	Annual Report Due	Surveys <sup>1</sup>	Project Status	Monitoring / Maintenance Status
1	PDS2008-3914-98-001	Bernardo Lakes	Feb-1998	None	Dec	Sensitive Species (annually)	Built-out	Former TET property. Per Open Space Maintenance Agreement, HOA responsible to find replacement HM. Enforcement is under discussion.
<p><b>APNs:</b> 678-070-30, -31, 678-420-26, -27, 678-421-01, 678-422-01, -02, -04, 678-430-25, 678-432-01, 678-070-35</p> <p><b>Habitat Conservation Area Description:</b> A total of 111.8 acres of open space is dedicated with 71.8 acres of the 111.8 previously conveyed. The open space is located west of the current western termini of Rancho Bernardo Road, immediately north of Artesian Road and west of Four Gee Road. The property consists mostly of coastal sage scrub with some freshwater marsh, southern willow scrub, and non-native grassland.</p>								
2	PDS2008-3914-99-001	4S Ranch, Ralphs Family Preserve	Sep-1999	Joaquin Meza	Aug	Report new invasive plants population	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 678-031-02, -03, -04, -05, -06, -07, -08, -09, Portions of 678-031-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20</p> <p><b>Habitat Conservation Area Description:</b> Approximately 1,065 acres immediately south of Lake Hodges, including coastal sage scrub, southern mixed chaparral, native and non-native grassland</p>								
3	PDS2012-3914-99-002-02	4S Ranch, Specific Plan Preserve	Sep-1999	Habitat Restoration Sciences	Sep	Report new invasive plants populations	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> <i>Lusardi Creek Portion</i> (south) 312-284-01, 312-285-01, 312-150-04; <i>North</i> 678-050-49, 678-030-08, 678-050-51</p> <p><b>Habitat Conservation Area Description:</b> A total of approximately 547 acres of open space is located on this property. 312 acres are located in the northern portion of the project, adjacent to the Ralph's Family Reserve, and 230 acres is located in the southerly portion of the site within La Jolla Valley, surrounding the Lusardi Creek riparian corridor</p>								
4	PDS2008-3914-99-003	Golem, East Gorge	Jan-2000	San Dieguito River Valley Joint Powers Authority	Dec	CAGN (twice annually)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs</b> 678-020-02, -03, 678-021-02, -03, 265-320-03</p> <p><b>Habitat Conservation Area Description</b> 154 acres of open space was set aside to preserve California adolphia, southwestern spiny rush, San Diego marsh elder, Del Mar manzanita, wart-stemmed ceanothus, California gnatcatcher, southern California rufous-crowned sparrow, coastal western whiptail, and mountain lion.</p>								
5	PDS2008-3914-99-004	Starwood, Santa Fe Valley	Jun-2004	Rincon Consultants	Mar	Sensitive Species (annually)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.

	RMP Number	RMP Name	RMP Date	Habitat Manager	Annual Report Due	Surveys <sup>1</sup>	Project Status	Monitoring / Maintenance Status
<p><b>APNs:</b> Open Space / 265-320-18, -22, -30, 265-291-21, -23, -25, -26, -27, 265-290-41, -43, 267-050-42, -44, -46, 267-190-01, 267-132-18, 267-050-57, 267-132-11, 267-051-05, 30, Portion of 267-190-02, Open Space // Portions of 267-190-32, 267-290-35, 267-180-72, 267-191-01, -02, -11</p> <p><b>Habitat Conservation Area Description:</b> The open space is equivalent to approximately 170 acres, located in the north-central San Diego County, along the San Dieguito River corridor south of Del Dios Highway at Bing Crosby Boulevard. 14 sensitive plant species and 12 sensitive wildlife species were observed onsite: California adolphia, San Diego mesa mint, San Diego button celery, spreading navarretia, Orcutt's brodiaea, San Diego ambrosia, Del Mar manzanita, Nuttall's scrub oak, San Diego barrel cactus, San Diego marsh elder, San Diego sagewort, southwestern spiny rush, summer holly, wart-stemmed ceanothus, San Diego fairy shrimp, orange-throated whiptail, Bell's sage sparrow, California horned lark, California gnatcatcher, Cooper's hawk, great blue heron, loggerhead shrike, northern harrier, southern California rufous-crowned sparrow, white-tailed kite, and San Diego black-tailed jackrabbit.</p>								
6	PDS2008-3914-99-005	Woodridge	Updated-2016	Center For Natural Lands Management	Dec	CSS (2 out of 5 years) CAGN (2 out of 5 years) Delicate Clarkia (1 out of 5 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 395-151-69, -70, 395-432-23, -24, -30, -31</p> <p><b>Habitat Conservation Area Description:</b> Located south of Pino Drive and west of Lakeview Drive in Lakeside, about 1/2 mile west of Lake Jennings. The site has approximately 55 acres of Diegan coastal sage scrub and native grasslands, and a small patch of eucalyptus woodland, and supports the federally-listed threatened coastal California gnatcatcher. The Center for Natural Lands Management received title to the property in the December of 1999 at which time the Woodridge habitat conservation areas management commenced. The County of San Diego holds an Open Space Easement on the conservation area.</p>								
7	PDS2008-3914-01-001	Blossom Valley	Updated-2012	Center for Natural Lands Management	Dec	DCSS and SMC (1 out of 5 years) Oak Tree for GSOB (annually) CAGN (2 out of 5 years) Rush-like Bristleweed and Englemann Oak (1 out of 5 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 390-061-03, -04</p> <p><b>Habitat Conservation Area Description:</b> The 286-acre habitat conservation area was dedicated in fee to the Center for Natural Lands Management in July 2009 as off-site mitigation for the Blossom Valley Estates development. The site is located in Blossom Valley, about 2 miles east of Lake Jennings. The site supports Diegan coastal sage scrub, southern mixed chaparral, and coast live oak woodland that all burned completely during the Cedar Fire in 2003. The site's terrain is very steep and rugged.</p>								
8	PDS2008-3914-02-001	McCrink Ranch, Santa Fe Valley	Jan-2003	None	Jan	Sensitive Species (annually)	Partially built-out	County owned portion of open space is managed by DPR. The easement portion was formerly managed by TET. No previous annual reports submitted. Enforcement under discussion.
<p><b>APNs:</b> 265-320-25, 267-060-48, -49</p> <p><b>Habitat Conservation Area Description:</b> This 270-acre preserve area is located in west-central San Diego County, approximately 5 miles east of Interstate 5 and 3 miles west of Interstate 15, south of Del Dios Highway. The site primarily supports coastal sage scrub and southern mixed chaparral.</p>								

	RMP Number	RMP Name	RMP Date	Habitat Manager	Annual Report Due	Surveys <sup>1</sup>	Project Status	Monitoring / Maintenance Status
9	PDS2008-3914-02-003	Maranatha Chapel	Oct-2002	None	Dec	CAGN (every two years) Rare Plant (every two years)	Built-out	Land Manager/Owners have poor history of reporting. Previous efforts with County Counsel to induce compliance have not been successful. County staff continues to evaluate options to gain successful compliance with the annual reporting requirement.
<p><b>APN:</b> 267-060-37, Portion of 267-060-38</p> <p><b>Habitat Conservation Area Description:</b> The preserve is located at the western terminus of Rancho Bernardo Road, between Artesian Road and Del Dios Highway. Approximately 82 acres of open space is located in two sections (Open Space 1 North and Open Space 1 South). Nearly half of the property is Diegan coastal sage scrub habitat, with the remaining habitat as non-native grassland, chaparral, oak woodland, freshwater marsh, eucalyptus woodland, disturbed (roads), and developed land.</p>								
10	PDS2008-3914-03-002	El Apajo	Jun-2003	None	Dec	Avian and Amphibian (annually) Floral Inventory (every 5 years)	Built-out	Project does not have a maintenance agreement. Annual reports have not been submitted. Enforcement is under discussion.
<p><b>APN:</b> 268-360-15</p> <p><b>Habitat Conservation Area Description</b> This 25.6-acre open space area was conserved for annual grassland and wetlands. It is located within the San Dieguito River Valley along Via de Santa Fe Road northwest of its junction with El Apajo Road.</p>								
11	PDS2010-3914-05-004	Greenhills Ranch	Sep-2006	Habitat Restoration Sciences	Jan	CAGN (every 2 years) San Diego Cactus Wren (every 2 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APN:</b> 395-452-01</p> <p><b>Habitat Conservation Area Description:</b> The 44.04-acre open space is located south of Lake Jennings Road and west of Interstate 8. Observed on the property were California gnatcatcher, southern California rufous-crowned sparrow, silvery legless lizard, Coronado skink, western spadefoot, black-tailed jackrabbit, mule deer, turkey vulture, Bewick's wren, San Diego sunflower, prostrate spineflower, and ashy spike-moss.</p>								
12	PDS2009-3914-06-005	Artesian Trail	Apr-2007	San Dieguito River Park Conservancy	Sep	Thread-leaf Brodiaea (annually)	Built-out	Annual reports have not been submitted. PDS and County Counsel are discussing possible follow-up.

	RMP Number	RMP Name	RMP Date	Habitat Manager	Annual Report Due	Surveys <sup>1</sup>	Project Status	Monitoring / Maintenance Status
<p><b>APNs:</b> 267-142-33, -34, -35, -36</p> <p><b>Habitat Conservation Area Description:</b> The project dedicated approximately 3.2 acres of land into open space in response to a four lot subdivision. The site is located in the Community of Rancho Santa Fe, four miles west of Interstate 15, south of Artesian Road. The property preserves approximately 2.6 acres of non-native grassland and 0.6-acre of coastal sage scrub. Observed on the property were approximately 688 federally threatened thread-leaf brodiaea (<i>Brodiaea filifolia</i>), and approximately 155 California adolphia (<i>Adolphia californica</i>).</p>								
13	PDS2012-3914-11-002	Lonestar	Dec-2011	San Diego Habitat Conservancy	Jan	Sensitive Plant Species (every 5 years) CAGN (2 out of every 5 years) Fairy Shrimp (2 out of every 5 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 646-030-21-00, 646-070-36-00, 646-070-37-00</p> <p><b>Habitat Conservation Area Description:</b> Non-native grassland and CSS in East Otay Mesa. The Preserve provides habitat for several sensitive animal species, including the California gnatcatcher, Coronado skink burrowing owl, and white-tailed kite.</p>								
14	PDS2014-RMPM-10-003	East Otay Mesa	Feb-2012	Open Space Management, Inc.	Jan	CAGN (every 3 years) Burrowing Owl and Raptor (annually) QCB (every 3 years) Sensitive Plant (every 3 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 648-050-20, 648-011-06, Portions 648-040-31, 648-040-55, 648-040-57</p> <p>92 acres located on the west and east sides of Alta Road north of Calzada de la Fuente in East Otay Mesa. Habitats are coastal sage scrub, chaparral, and non-native grassland. Supports burrowing owls, barrel cactus, Matilija poppy, and San Diego sunflower.</p>								
15	PDS2015-RMPM-12-002	Sloane Canyon	Nov-2013	Open Space Management, Inc.	Feb	Plant and Animal Species (every 3 years)	Built-out	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APN:</b> 521-080-11</p> <p><b>Habitat Conservation Area Description:</b> The Sloane Canyon open space comprises 39.3 acres on Sloane Canyon Road in Jamul. It includes 4.72 acres of riparian woodland, 6.0 acres of Diegan coastal sage scrub, 9.71 acres of Diegan coastal sage scrub/chaparral, 17.2 acres of southern mixed chaparral, and 1.67 acres of disturbed habitat.</p>								
16	PDS2015-RMPM-12-003	Trevi Hills	Feb-2013	Open Space Management, Inc.	Feb	Lakeside Ceanothus (every 5 years)	In process	2018-2019 report was submitted and reviewed by county staff, no major concerns.

	RMP Number	RMP Name	RMP Date	Habitat Manager	Annual Report Due	Surveys <sup>1</sup>	Project Status	Monitoring / Maintenance Status
<p><b>APNs:</b> 389-071-17, 389-101-01, -02, -03, 389-072-03, 389-102-01, -02, 389-020-12</p> <p><b>Habitat Conservation Area Description:</b> The Trevi Hills/ High Meadow Ranch open space comprises approximately 350 acres off Muth Valley Road and High Meadow Road. The open space provides for the long-term conservation of intact southern mixed chaparral habitat and the Lakeside ceanothus or Lakeside wild lilac (<i>Ceanothus cyaneus</i>).</p>								
17	PDS2016-RMP-16-004	Otay Crossings Commerce Park	Aug-2017	San Diego Habitat Conservancy	Jan	Burrowing Owl (annually) QCB (every 3 years) Fairy Shrimp (2 out of every 5 years) Sensitive Plant (varies)	In process	2018-2019 report was submitted and reviewed by county staff, no major concerns.
<p><b>APNs:</b> 648-0701-15, 648-080-29</p> <p><b>Habitat Conservation Area Description:</b> The Otay Crossing Commerce Park on-site biological open space is comprised of 24.3 acres. It includes 0.03 acres of wetland, 6.8 acres of coastal sage scrub, 16.2 acres of non-native grassland, and 1.2 acres of disturbed habitat.</p>								

NOTES:

<sup>1</sup> Subject to change due to RMP updates and/or adaptive management

- APN – Assessor Parcel Number
- CAGN – coastal California gnatcatcher
- CSS – Coastal Sage Scrub
- DCSS – Diegan Coastal Sage Scrub
- GSOB – gold-spotted oak borer
- HOA – Homeowners Association
- HM – habitat manager
- QCB – Quino checkerspot butterfly
- RMP – Resource Management Plan
- SMC – Southern Maritime Chaparral
- TET – The Environmental Trust, Inc.

SOURCE:

County of San Diego Department of Planning and Development Services