

Nature Reserve of Orange County

County of Orange
Central/Coastal NCCP/HCP

2023 ANNUAL REPORT



Natural Communities Coalition

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NATURE RESERVE OF ORANGE COUNTY

ANNUAL REPORT 2023

Table of Contents

BACKGROUND AND INTRODUCTION	1
RESERVE MAPS	1
Coastal Reserve Map	2
Central Reserve Map	3
1.0 ORGANIZATIONAL GOVERNANCE AND ANNUAL REPORT OVERVIEW	4
1.1 Board of Directors Milestones in 2023	4
2.0 SCIENTIFIC PROGRAM STATUS AND WORK PLAN 2023-24.....	5
2.1 Introduction	5
2.2 Work Plan Table	7
2.3 Project Descriptions	9
2.4 Habitat Restoration and Enhancement Summary Tables	39
3.0 CONSERVATION CUSTODIAL FUNDS.....	40
3.1 2023 Pacific Pocket Mouse Custodial Fund.....	40
3.2 2023 Cowbird Fund	40
4.0 RESERVE MANAGEMENT PLANS AND POLICIES	41
4.1 Wildland Fire Management Plan.....	41
4.2 Habitat Restoration and Enhancement Plan.....	42
4.3 Recreation Management Plan.....	43

5.0	IMPACTS TO COASTAL SAGE SCRUB HABITAT	45
5.1	Authorized Take in the Reserve System by Participating Landowners as Reported to NCC in 2022.....	45
5.2	Take by Non-Participating Landowners – In-Lieu and Other Mitigation Fee Options	55
6.0	ACCOUNTING OF FUNDS RECEIVED AND DISPERSED.....	55
7.0	BOUNDARY CHANGES/MINOR AMENDMENTS	55
8.0	LANDOWNER/MANAGER PROGRESS REPORTS AND WORK PLANS	56
8.1	California Department of Fish and Wildlife	
	Coal Canyon Ecological Reserve	56
	Laguna Laurel Ecological Reserve	63
	Upper Newport Bay Ecological Reserve.....	72
8.2	California Department of Parks and Recreation	
	Crystal Cove State Park.....	82
8.3	Orange County Parks	
	Aliso and Wood Canyons Wilderness Park	98
	Irvine Ranch Open Space	109
	Irvine Regional Park.....	123
	Laguna Coast Wilderness Park	133
	Peters Canyon Regional Park	143
	Santiago Oaks Regional Park.....	153
	Talbert Regional Park	161
	Upper Newport Bay Nature Preserve	170
	Whiting Ranch Wilderness Park	178
8.4	Orange County Public Works/OC Flood Control District	
	Orange County Public Works Projects	186

8.5	Orange County Waste and Recycling	
	Orange County Waste and Recycling	199
8.6	City of Irvine	
	Open Space Preserve	210
8.7	City of Newport Beach	
	Buck Gully Reserve	220
8.8	Irvine Company	
	Irvine Company	230
8.9	University of California, Irvine	
	Ecological Preserve	237
8.10	Irvine Ranch Water District	
	San Joaquin Reservoir.....	248
	Syphon Reservoir Preserve	254
8.11	Transportation Corridor Agencies	
	Bonita Creek.....	260
	Coyote Canyon	266
8.12	Southwest Resource Management Association	
	Portola South	272

Acknowledgements

The Natural Communities Coalition appreciates and thanks the reserve landowners and land managers whose hard work and collaboration makes a significant contribution to the health of the Reserve and this Annual Report.

Cover Photo

The photo overlooking the southeast edge of Aliso and Wood Canyon Wilderness Park was taken on December 23, 2023. The spectacular rainbow was illuminated for nearly an hour.

Photo by Darin Loughrey

BACKGROUND

The Implementation Agreement for the County of Orange NCCP/HCP Central and Coastal Subregion specifies that an Annual Report be prepared each year to describe activities of the non-profit management corporation and of landowners and land managers within the reserve system. The annual report contains a progress report for the preceding year and a work plan for the following year. This report is being submitted to the US Fish and Wildlife Service and California Department of Fish and Wildlife to fulfill that requirement for the years 2022/2023. Guidelines provided by the Wildlife Agencies were used in the preparation of this report.

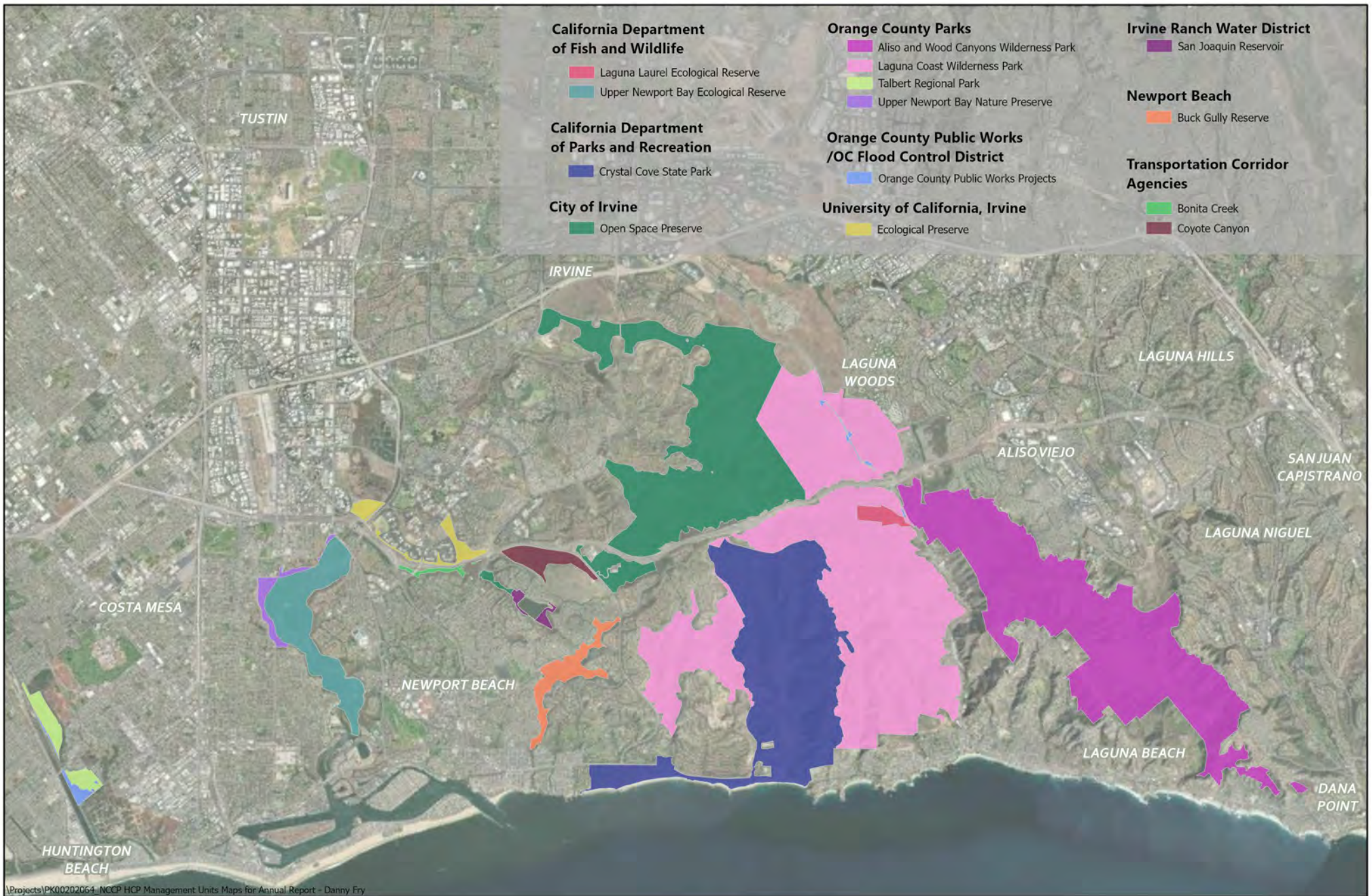
INTRODUCTION

The Natural Communities Coalition is the 501(c)(3) non-profit corporation that was formed to manage the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the Central and Coastal Subregion of Orange County. Its mission is to “*Coordinate with landowners, managers and other partners to ensure the persistence of the Reserve’s natural communities, including the full spectrum of native plant and animal species, through protection, study and restoration of native habitats and natural processes*”. Thirty-nine sensitive species are protected, including nine plant and thirty animal species. The primary vegetation type in the Reserve is coastal sage scrub, coexisting in an intricate mosaic of oak woodland, native grassland, chaparral, Tecate cypress and riparian communities.

NCC helps coordinate science and land management activities of reserve landowners and managers in the nearly 38,000-acre reserve system. Additionally, it conducts biological research and monitoring, and implements habitat restoration and enhancement programs in coordination with landowners and managers. The overall biological goal of the Reserve program is to conserve healthy, functioning ecosystems at a landscape level. This is accomplished through adaptive management, a flexible approach that is open to change based on new scientific information.

RESERVE MAPS

Two maps of the Reserve system, Coastal Subregion and Central Subregion have been included in this annual report for easy reference.



California Department of Fish and Wildlife

- Laguna Laurel Ecological Reserve
- Upper Newport Bay Ecological Reserve

California Department of Parks and Recreation

- Crystal Cove State Park

City of Irvine

- Open Space Preserve

Orange County Parks

- Aliso and Wood Canyons Wilderness Park
- Laguna Coast Wilderness Park
- Talbert Regional Park
- Upper Newport Bay Nature Preserve

Orange County Public Works /OC Flood Control District

- Orange County Public Works Projects

University of California, Irvine

- Ecological Preserve

Irvine Ranch Water District

- San Joaquin Reservoir

Newport Beach

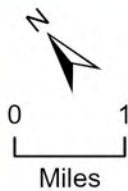
- Buck Gully Reserve

Transportation Corridor Agencies

- Bonita Creek
- Coyote Canyon

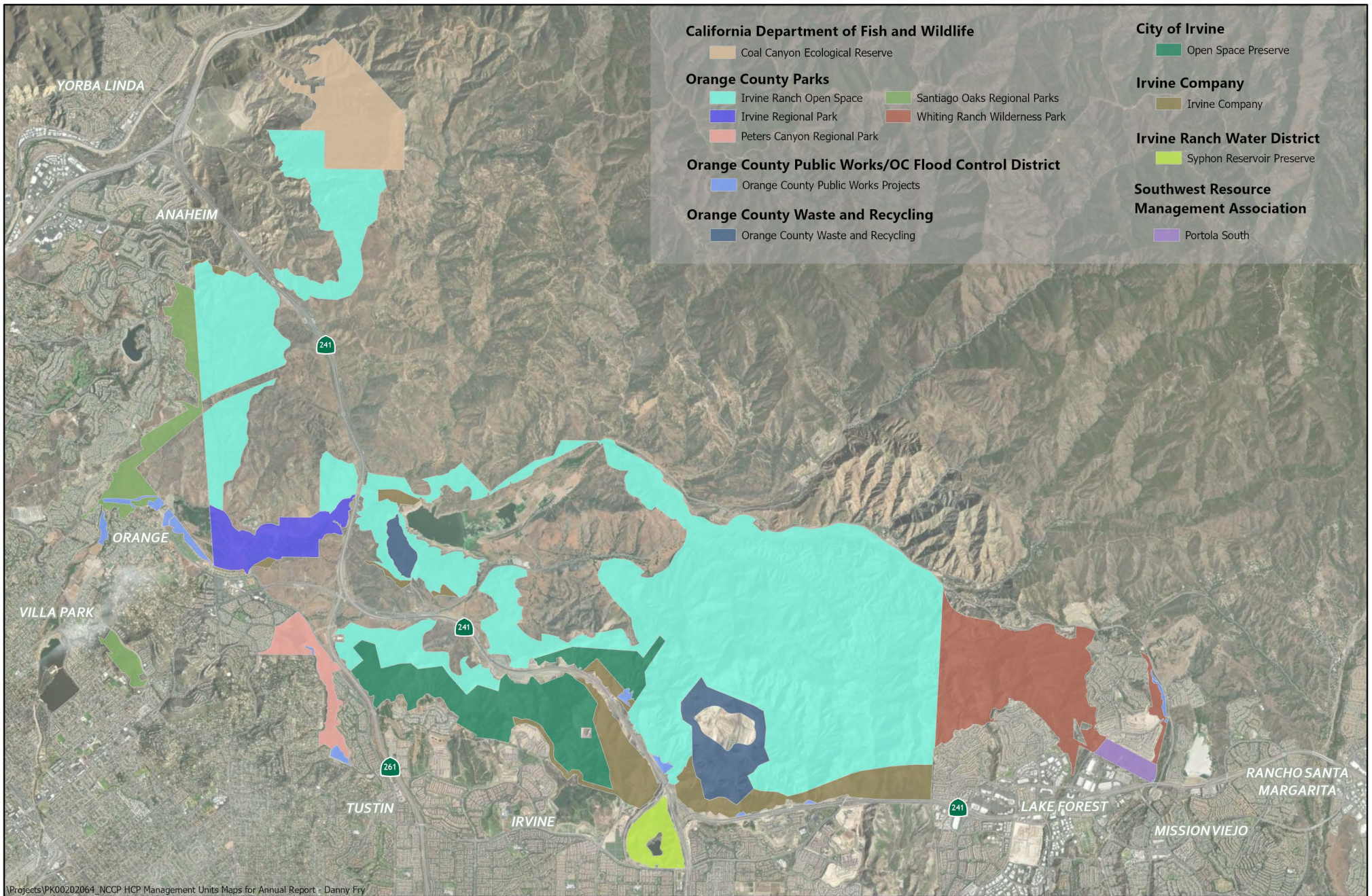
Projects\PK0020264_NCCP HCP Management Units Maps for Annual Report - Danny Fry

DESIGNED AND PRODUCED BY: OCPR OC Parks GIS
DATA SOURCE: - OC Parks; OCPW; Earthstar Geographics (Aerial Imagery)
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DATE: February 6, 2023



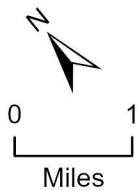
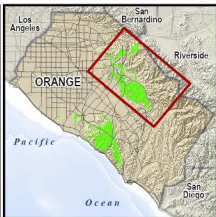
**Nature Reserve of Orange County
Management Units**
Coastal Reserve





Projects\PK00202064_NCCP HCP Management Units Maps for Annual Report - Danny Fry

DESIGNED AND PRODUCED BY: OCWR OC Parks GIS
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DATE: February 6, 2023



Nature Reserve of Orange County Management Units

Central Reserve



1.0 NCC ORGANIZATIONAL GOVERNANCE AND ANNUAL REPORT OVERVIEW

1.1 Board of Directors Milestones in 2023

March

- NCC Board of Directors received a briefing from opinion researchers on a January 2023 poll of 900 registered voters from zip codes adjacent to the Nature Reserve of Orange County.
- The tax return for the October 1, 2021, through September 30, 2022, fiscal year were reviewed and accepted by the board.
- Board of Directors unanimously approved the NROC 2022 Annual Report and 2023 Work Plan for submission to the Wildlife Agencies.

June

- NCC Board of Directors reinitiated its annual project-focused spring field trip. The field trip concentrated on the proposed conservation cattle grazing pilot program and invasive species management efforts in Weir Canyon (Central Subregion).
- NCC was enrolled as a member in California Cooperative Ecosystem Studies Unit (CESU).

September

- Board of Directors received a status update on the progress of the Orange County Native Seed Partnership project in development by NCC and NROC partners.
- Board of Directors approved the 2023-24, fiscal year budget.

December

- NCC Board of Directors approved the September 30, 2023, audited financial statement as presented by CliftonLarsonAllen.
- NCC conducted interviews of land managers representing NCCP/HCP signatories regarding common challenges in balancing resource protection and recreation on lands enrolled in Reserve.
- Board of Directors approved a revised In-Lieu Mitigation Fee for 2024 consistent with the South County HCP authorized fee.

2.0 NCC SCIENTIFIC PROGRAM STATUS AND WORK PLAN 2023 - 2024

2.1 Introduction

The primary responsibility of NCC is to facilitate implementation of an effective management program that maintains the long-term net habitat value of the coastal sage scrub habitat mosaic within the Central-Coastal Subregion. Through its biological monitoring and research program, NCC gathers key information on the status and trends of the biological resources and operation of natural systems found within the Reserve. Knowledge gained from these activities informs development of the Reserve's science-based management program implemented by the signatories of the NCCP/HCP, with support from NCC, in an adaptive framework.

Habitat restoration and enhancement is critical to maintaining and enhancing the long-term viability and function of the habitat within the Reserve and serves a key role in the Reserve's management program. As defined by the NCCP/HCP, any activity designed to enhance existing biological functions, or restore biological functions that were present historically but no longer are present within the Reserve is treated as a restoration or enhancement activity. Traditionally, the focus of NCC's habitat restoration program has been on the restoration of the conditions that support the target species and habitat, however, the program has the flexibility to be expanded to include the enhancement or restoration of the full range of habitats included within the Reserve, as well as the monitoring and associated adaptive management of ongoing operation and maintenance activities, public access and recreation uses, and fire management programs.

The Work Plan Table (Section 2.2) and accompanying Project Descriptions (Section 2.3) provide updates on the progress and accomplishments of 22 projects sponsored by NCC during the 2023 calendar year. Two projects are now recognized as complete pending closure of the grant. All others are ongoing or new projects scheduled to be implemented in 2024. Project Descriptions were written to facilitate the development of a project database that allows for the standardization of tracking project status, cost, matching contributions, landowner involvement, and accomplishments. In addition, the information provided in the summary table allows projects to be directly linked to project reports, GIS data, and contracts, as well as assigns projects to different program classes and areas, and by resource.

The total approved Work Program budget for FY2024 is \$2,698,635. Consistent with the NCC Strategic Plan, the budget for FY2024 includes funding for multi-year science and land management initiatives developed to support a broad-based ecosystem approach to the protection and long-term management of biological diversity present within the Reserve. Multi-year initiatives are organized across the six focus areas of wildland fire, recreation, habitat restoration, invasive species, wildlife management, and biological monitoring.

Following discussions with members of the NCC Board, Technical Advisory Committee, key partners and stakeholders, the importance of identified multi-year initiatives was ultimately recognized and seconded by participants of the Science Integration Meeting hosted by NCC in early 2016 and then again by NCC board members and key partners in the NCC 2022 - 2024 Strategic Planning Workshop held in March 2022.

Multi-year initiatives supported by the present-year budget include several resource management and monitoring activities in direct support of the mission of the Reserve. These include: a partnership among OCFA, UCCE, OC Parks, State Parks, and IRC, to monitor and treat invasive beetles threatening oak and riparian woodlands; partnership with UC Irvine on development of strategies for monitoring changes in the coastal sage scrub habitat mosaic and habitat restoration; a NCC staff led initiative to work with partners and experts on creation of dashboard metrics of relevance to partners, the public, and elected officials concerning the health of the Reserve; continue development of management strategies to improve breeding opportunities for western spadefoot; and partner-supported, repeat, region-wide surveys for Cactus Wren and California Gnatcatcher.

The budget continues to support empowerment of reserve partners as they direct implementation of a coordinated, unified approach to the management of invasive plants with support from the California Invasive Plant Council under contract with NCC. With respect to recreation management, the budget allows NCC staff to continue to engage national leaders in the field of recreation ecology from Utah State University and Oregon State University to work with partners on development of a long-term recreation management plan for the Reserve, providing the much-needed balance between human-use and resource protection within the Reserve.

Lastly, the budget allows NCC staff to continue implementing key elements of the Wildland Fire Management Plan. Such elements include limiting fire spread and rates of ignitions along the wildland-urban interface and roadsides, implementing the Fuel Management Standards, and other fire management activities associated with natural resource protection. Considering some of these elements fall outside of the Reserve, progress will require partner and contractor-based training, and establishment of new partnerships with other agencies, such as Caltrans, through implementation of priority initiatives identified by COAST and the county-wide Community Wildfire Protection Plan.

Multi-year initiatives supported by the budget reach further than previously funded activities as they create a partner-based collaborative supporting science-based decision-making and novel communication processes. Through the implementation of the initiatives identified in the new fiscal budget, a foundation is set in place providing stability in terms of the direction of the science program and partners with access to a diverse and talented team of natural resource management professionals and scientists working on focus areas of highest priority to the Reserve.

2.2 2023-2024 NCC Work Plan Table

	Project Name	Project Status	Project Progression *	Fund**	Matching Funds Secured	FY2023	FY2024	Orange County Parks	Orange County Waste and Recycling	City of Irvine	Crystal Cove State Park	CA Dept. of Fish and Wildlife	City of Newport Beach	University of California, Irvine	Irvine Ranch Water District	Transportation Corridor Agencies	The Irvine Company	Metropolitan Water District
1	Orange-throated whiptail	O		R	Y	\$97,276	\$84,998	X	X	X	X	X	X	X	X	X	X	X
2	Invasive Plant Program Mgmt	O		R		\$99,869	\$124,651	X	X	X	X	X	X	X	X	X	X	X
3	Invasive Plant Control	O		R		\$82,948	\$121,667	X		X	X	X	X	X				
4	Cowbird Trapping	O		C		\$40,900	\$47,000	X		X	X				X			
5	Mountain Lion Project	O		E		\$10,000	\$10,000	X	X	X		X			X	X	X	
6	NCC Database Mgmt	O		E		\$30,915	\$85,000	X	X	X	X	X	X	X	X	X	X	X
7	Target Bird Monitoring	O		E	Y	\$168,973	\$288,527	X	X	X	X	X	X	X	X	X	X	X
8	Economic Benefits of NCCP/HCP	O		E		\$15,110	\$35,400	X	X	X	X	X	X	X	X	X	X	X
9	Land Manager Training	P		E		--	\$71,500	X	X	X	X	X	X	X	X	X	X	X
10	Western Spadefoot Mgmt	O		R	Y	\$118,255	\$125,000	X	X	X	X	X	X	X	X	X	X	X
11	Rec Mgmt & Human Valuation	O		R		\$148,800	\$91,380	X		X	X	X	X	X		X	X	
12	Vegetation Classification Update	O		E	Y	\$26,986	\$205,379	X	X	X	X	X	X	X	X	X	X	X
13	Vegetation Monitoring & Communication	O		E	Y	\$104,854	\$125,000	X	X	X	X	X	X	X	X	X	X	X
14	Trail Use Study	O		R		\$16,872	\$12,314	X										
15	NDVI Fuels Map	C		E	Y	--	--	X										
16	Connectivity Rapid Assessment	N		E		--	\$75,901	X	X	X	X	X	X	X	X	X	X	X
17	Laguna Canyon Fuels Mod	O		R	Y	\$3,890	\$5,000	X		X								
18	Health Assessment	O		E		\$36,457	\$87,229	X	X	X	X	X	X	X	X	X	X	X
19	Native Seed Partnership	O		R		\$34,963	\$215,000	X	X	X	X	X	X	X	X	X	X	X

	Project Name	Project Status	Project Progression*	Fund**	Matching Funds Secured	FY2023	FY2024	Orange County Parks	Orange County Waste and Recycling	City of Irvine	Crystal Cove State Park	CA Dept. of Fish and Wildlife	City of Newport Beach	University of California, Irvine	Irvine Ranch Water District	Transportation Corridor Agencies	The Irvine Company	Metropolitan Water District
20	Grazing Plan – Pilot Study	O		R		\$41,442	\$767,500	X										
21	Horned Liard Ecol. Conditions	N		E	Y	--	\$64,792	X	X	X	X	X	X	X	X	X	X	X
22	Pond Turtle Site Assess.	N		E		--	\$55,397	X	X	X	X	X	X	X	X	X	X	X
					Endowment:	\$393,295	\$1,104,125											
					Restoration:	\$644,315	\$1,547,510											
					Cowbird:	\$40,900	\$47,000											
					Total:	\$1,042,510	\$2,698,635											

* Green = Project is on or ahead of schedule; Yellow = Project requires additional attention by NCC staff and/or contractors; Red = Project requires substantial attention by NCC staff and/or contractors, White = Project is approved, but not initiated

** R = Restoration & Acquisition Fund; E = Endowment Fund; C = Cowbird Fund

† C = Complete; O = Ongoing; N = New; P = Postponed

2.3 Project Descriptions

List of Acronyms

BMPs = Best Management Practices
CCSP = Crystal Cove State Park
CDFW = California Department of Fish and Wildlife
CEB = Center for Environmental Biology
CMT = Core Management Team
CNB = City of Newport Beach
CNPS = California Native Plant Society
COAST = County of Orange Area Safety Taskforce
COI = City of Irvine
EEMP = Environmental Enhancement Management Program
HCP = Habitat Conservation Plan
HREP = Habitat Restoration and Enhancement Plan
IC = Irvine Company
IRC = Irvine Ranch Conservancy
IRWD = Irvine Ranch Water District
LAG = Local Assistance Grant
LCF = Laguna Canyon Foundation
LCWP = Laguna Coast Wilderness Park
MOU = Memorandum of Understanding
MWD = Metropolitan Water District
NCC = Natural Communities Coalition
NCCP = Natural Community Conservation Plan
NROC = Nature Reserve of Orange County
OCFA = Orange County Fire Authority
OCP = Orange County Parks
OCTA = Orange County Transportation Authority
OCWR = Orange County Waste and Recycling
SDMMP = San Diego Management and Monitoring Program
TAC = Technical Advisory Committee
TCA = Transportation Corridor Agencies
TNC = The Nature Conservancy
UCI = University of California, Irvine
UCLA = University of California, Los Angeles
UNB = Upper Newport Bay
USDA = US Department of Agriculture
USFWS = US Fish and Wildlife Service
USGS = US Geological Survey
VegCAMP = Vegetation Classification and Mapping Program
WCS = Wildlands Conservation Science

Reporting Template for NCCP-related Science and Land Management Projects

Project Title	Abbreviated project title limited to 100 characters
Contractor(s)/Researcher	Contractors or researchers associated with the project
Time Period	Years project has been active and current project end date
Total Project Cost	Total project costs since start date (NCC + matching funds)
Amount Budgeted	NCC FY2023 spent and FY2024 budgeted
Fund	Endowment, Restoration, or Cowbird Funds (NCC-specific category)
Matching Contribution(s)	Agency (Dollar Amount)
Landowner Involvement	Landowners whose land is accessed for purposes of conducting the project
Project Status	Project may be Complete, Ongoing, or New
Project Progression	Project is on or ahead of schedule (Green), Project requires additional attention by staff and/or contractors (Yellow), Project requires substantial attention by staff and/or contractors, project is in jeopardy of not progressing (Red), Project is approved, but not initiated (White)
Program Class	Identify program class from the following categories: Monitoring/Research, Land Management, Planning, Education/Training, Database Management
Program Area	Identify program area from the following categories: Wildland Fire, Weed Control, Habitat Restoration, Recreation, Sensitive Biological Resources, Invasive Wildlife Control
Resource	Natural resource benefiting from project implementation
Project Purpose	Brief description limited to 50 words
Available Report(s)	Project reports associated with the project (project description linked to associated reports in online library)
Available GIS Product(s)	GIS data associated with the project (project description linked to associated GIS files in online library)
Overview	Project background limited to 1000 words (static between years)
Progress	Progress made to date (includes a description of past-year activities as well as activities to be achieved in the new calendar year)
Key Milestones Schedule	Project milestones (with due dates identified): Date milestone achieved
Key Findings	Updated each year as applicable
Notes	Updated each year as applicable

1. Orange-throated Whiptail

Project Title	Orange-throated Whiptail
Contractor(s)/Researcher	USGS
Time Period	2023-2024
Total Project Cost	\$97,276
Amount Budgeted*	FY2023: \$97,276, FY2024: \$84,998
Fund	Monitoring
Matching Contribution(s)	CDFW-LAG: \$91,138; USGS: \$40,000
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNB, UCI, IRWD, TCA, IC, MWD
Project Status	On-going
Project Progression	On Schedule
Program Class	Monitoring/Research
Program Area	Invasive Wildlife Control
Resource	Sensitive Species
Project Purpose	Assess abundance and determine potential impact of introduced whiptail on NCCP/HCP covered whiptail species in the reserve.
Available Report(s)	Orange-Throated Whiptail Survey Report. Prepared by USGS. Nov. 2023.
Available GIS Product(s)	--

Overview

The orange throated whiptail (*Aspidoscelis hyperythra*) (OTW) is one of three primary species driving the NCCP/HCP Program development in southern California, along with the California gnatcatcher and the coastal cactus wren. Threats initially identified for future evaluation of this species include further habitat fragmentation and potential impacts from wildfires (Thomson et al. 2016), but no credible threats were identified from invasive species. In 2016, Winkelman and Backlin published the first observations of the invasive parthenogenetic (asexual), Sonoran spotted whiptail (*Aspidoscelis sonorae*) (SSW) from urban central Orange County and subsequent reports indicated the species was present as early as 2010. These records were the first observations for an invasive whiptail species in the state and highlighted a series of potential concerns regarding threats this species might cause to both the OTW and coastal western whiptail in southern California. The origin of the SSW in the region is unknown but could be tied to plant nurseries.

Some potential threats could include direct predation on OTW from SSW, competition, and perhaps hybridization. Other parthenogenetic whiptails have hybridized with sexual species and produced triploid (or higher ploidy) offspring. Due to the relatedness between the native and invasive species it might be that hybridization could be unlikely. But the coastal western whiptail (*Aspidoscelis tigris stejnegeri*) (CWW), which is also a covered species found on the Reserve, is more likely to hybridize with the invasive SSW and could possibly produce offspring lineages. The objective of this work will be to establish if the SSW is a true threat to the OTW (and the CWW) and what the source of that threat is to these species. The project will focus on various elements of the biology of the SSW and will target spatial occupancy.

Progress

The first field season of surveys by USGS was completed in early December 2023.

Before surveying, Orange County was divided into 500-meter grids. Urban grids were visually surveyed for 24 minutes or until a SSW was observed. Once a SSW was observed, the survey for that grid ended. For wildland grids, every grid was surveyed for 24 minutes or until all three whiptail species were observed. USGS created GPS tracks for each survey and recorded survey length, and they attempted to survey each grid twice. A time-to-detection model was used to model SSW occupancy (Halstead et al. 2021). To get time-to-detection data, USGS set a maximum survey time of 24 minutes per 500-meter grid.

Separate from the grid surveys, they used glue traps and lizard poles to obtain specimens for use in stomach content and fecal analysis. Glue traps were temporarily placed in SSW habitat and carefully monitored to prevent or rescue bycatch. All trapped non-target animals were safely removed with mineral oil and target lizards were collected and frozen whole. All scats collected were stored in RNA to be sent to Northern Arizona University for microbiome barcoding to determine their diet. USGS completed two surveys at 88 grids and one survey at 10 grids (Figure 2) and detected SSW in 50 grids and OTW in six grids (Figure 3). SSW and OTW were only detected in one grid (figure 3). They collected six SSW specimens and five SSW scats for further analysis.

2. Invasive Plant Program Mgmt

Project Title	Invasive Plant Program Mgmt
Contractor(s)/Researcher	Hamilton Biological, Calflora, Cal-IPC, IRC, CNPS
Time Period	2004-2024
Total Project Cost	\$1,110,397
Amount Budgeted	FY2023: \$99,869; FY2024: \$124,651
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	On schedule
Program Class	Land Management/Planning
Program Area	Weed Control
Resource	All
Project Purpose	Management (i.e., mapping, coordination, and reporting) of NCC and partner-sponsored weed control activities
Available Report(s)	<p><u>Five-year Invasive Plant Management Plan-Coastal Reserve (Central-Coastal Subregion NCCP/HCP). Prepared by California Invasive Plant Council. Oct. 2023.</u></p> <p><u>Five-year Invasive Plant Management Plan for the Central Reserve (Central-Coastal Subregion NCCP/HCP). Prepared by California Invasive Plant Council. Feb. 2019.</u></p> <p><u>2023 Early Detection/Rapid Response Survey Report Coastal Orange County NCCP/HCP Reserve. Prepared by Hamilton Biological. Oct. 2023.</u></p> <p><u>Calflora Reporting Capacity Report. Prepared by California Invasive Plant Council. Mar. 2022.</u></p>

	2023 Coastal NROC IPMP Baseline Table and Maps. Mar. 2023.
Available GIS Product(s)	<i>Calflora Weed Manager (www.calflora.org)</i>

Overview

Implementation of NCC’s invasive plant control program requires multi-agency coordination and collaboration. With the creation of the Core Management Team (CMT) in 2016, consisting of representatives from State Parks, OC Parks, and the IRC, NCC is focused on facilitating the Subregion-wide planning and implementation of the invasive plant program.

Progress

NCC has contracted with Cal-IPC to assist in the planning phases of the program, determining the next steps in developing expert recommendations for: (1) strategic prioritization for invasive plant management; (2) early detection/rapid response protocol for new invasive plant populations; and (3) a shared database for tracking invasive plant populations. The CMT, with participation from UCI, CDFW, Newport Bay Conservancy, OC Public Works, and Cal-IPC, is facilitating the update to the 2017/2019 five-year management plan for the Coastal and Central Reserve. The 2023-2027 management plan for the Coastal Reserve is complete and the Central Reserve’s update is planned for 2024-2025.

In 2017, members of the CMT began using Calflora’s Weed Manager to archive and report invasive plant control and mapping activities across the lands under their management. Activities reported include the early detection surveys. Each organization has created their own group to organize activities under their management in one central place for purposes of reporting and sharing observations, treatment history and other program features with members.

Several ongoing needs remain, with updates, as described below.

1. Reporting on each year’s work – At the end of each season, partners report on invasive plant control in the NROC annual report. The summary of invasive plant management activities will be produced primarily through Calflora, and is aggregated into a single report to NCC. Challenges continue with consistency in recording the data and a mechanism to consolidate and summarize by management unit. *Need:* Improving on the consistency in which the data is submitted and aggregating the information into a report for NCC. In 2022, CalIPC summarized the current reporting capacity and the opportunities for improvement (see report listed in table above). As part of the development of the 5-yr management plan for the Coastal Reserve, the CMT established the 2014-2022 baseline data set (see report listed in table above). Focus for 2024 includes the development of a baseline for the Central Reserve, with CalIPC assisting NCC in using the reporting tool to produce an annual report and individual users will be able to generate their own customized report.

2. Planning each season’s work – Each November-February the CMT meets to set a plan for the next year’s management and EDRR (Early Detection and Rapid Response) activities. This involves reviewing the management plans for the subregion and using that framework for setting priorities based on previous years, the results of treatment in previous years, and funding that is

available. *Need:* Better coordination among the CMT in designing annual work plans is ongoing. NCC coordinates annual planning meeting(s) to update the species priority list, review the EDRR survey plan, and review work assignments. Challenges include documenting this planning effort for each partner’s unique landscape and invasive plant management issues.

3. Configuring Calflora – CMT partners are using Calflora’s Weed Manager as a shared data platform. The tools are still evolving, and the CMT collaboration will benefit from working with Calflora. Needed features in development in 2024 include: improved record keeping (e.g., functionality of apps and linking records from same populations); being able to print maps; and having appropriate reports (e.g., custom report generator). Update: Improving use of the database and tools, led by OC Parks (e.g., video tutorials for tools, plant ID trainings), and made available to users will continue in 2024.

In 2024, contractors will again be working in tandem to implement the early detection surveys in both the Coastal and Central Reserve. Calflora’s Weed Manager is again to be made available for another 12-month period to the member organizations to help track and share information tied to invasive plant management activities. IRC will again be under contract to serve as GIS support for partners on use of Weed Manager in 2024.

Key Milestones

1. Prepare and Submit Update to Final Five-year Management for Coastal Reserve: *Completed in Oct., 2023.*
2. Prepare and Submit Final Five-year Management Plan for Central Reserve (Due: 31 December 2017): *Completed Feb., 2019—To be updated 2024-2025.*
3. Complete and Submit FINAL Annual Reports for Early Detection Surveys (Due: 31 December): *Completed annually by Hamilton Biological.*

3. Invasive Plant Control

Project Title	Invasive Plant Control
Contractor(s)/Researcher	Nakae & Associates; Laguna Canyon Foundation (LCF)
Time Period	2000-2024
Total Project Cost	\$3,367,286
Amount Budgeted	FY2023: \$82,948; FY2024: \$121,667
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	OCP, COI, CCSP, CNB, CLB, UCI, CDFW
Project Status	Ongoing
Project Progression	On schedule
Program Class	Land Management
Program Area	Weed Control
Resource	Coastal Sage Scrub Mosaic
Project Purpose	Implementation of top weed control priorities identified in the HREP and 5-year invasive plant management plans.
Available Report(s)	<u>Treatment Completion Report for Canary Island St. John’s Wort Project, City of Laguna Beach, Prepared by LCF, Aug. 2023.</u>

Available GIS Product(s)	<i>Calflora Weed Manager (www.calflora.org)</i>
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Overview

NCC is actively working with partners and contractors to control invasive plant species populations according to a collaboratively developed management plan. This project is progressing in conjunction with the invasive plant program management activities described in project #2.

Progress

Starting in 2017, the CMT formalized the Early Detection - Rapid Response Program covering the Coastal Reserve, which has now been expanded to cover all of the NROC. Trails were prioritized by potential risk of invasion and are surveyed periodically according to that risk. Ensuring a rapid response is available following early detections of emergent invasive plant species provides the greatest likelihood of successful containment of otherwise problematic invasive plant populations.

Every year NCC funds contractors to revisit and treat populations of high-priority invasive plant species as needed to support partners. Laguna Canyon Foundation continues to treat St. John's wort in Laguna Beach. In 2023, NCC renewed the contract to fund treatment for three more years. The fourth year of treatment summary report is listed in the above table.

Key Milestones

1. Coordinate with group on Field Schedule (Due: March each year): *Completed*
2. Complete and Submit Report for Early Detection Invasive Plant Survey (Due: 31 December each year): *Completed*

Notes

With increased usage of Calflora's Weed Manager, greater efficiencies in information sharing are being experienced by partners leading to increased coordination among land managers and consultants searching for and treating invasive plant populations of management concern (see Project #2).

4. Cowbird Trapping

Project Title	Cowbird Trapping
Contractor(s)/Researcher	Leatherman Bioconsulting, Inc.
Time Period	1999-2024
Total Project Cost	\$895,520
Amount Budgeted	FY2023: \$40,900; FY2024: \$47,000
Fund	Cowbird
Matching Contribution(s)	--
Landowner Involvement	OCP, COI, IC, CCSP
Project Status	Ongoing
Project Progression	On schedule

Program Class	Land Management
Program Area	Invasive Wildlife Control
Resource	Least Bell's Vireo
Project Purpose	Reduce incidence of cowbird nest parasitism for sensitive bird species, specifically California Gnatcatcher and Least Bell's Vireo
Available Report(s)	2023 San Joaquin Hills Transportation Corridor Brown-Headed Cowbird Trapping Program Report. Prepared by Leatherman Bioconsulting, Inc. Dec. 2023.
Available GIS Product(s)	--

Overview

Per an agreement between the Transportation Corridor Agencies (TCA), USFWS, CDFW, and NCC, the responsibility of implementing the San Joaquin Hills Transportation Corridor Brown-headed Cowbird (BHCB) Trapping Program was transferred from TCA to NCC in 1999. As part of this agreement, TCA also provided an endowment to NCC to cover the costs of implementing the program. The trapping methodology is modified, as needed, through evaluation of prior year trapping success and the annual performance of the endowment. Additional funds, independent of the original program endowment, from the County of Orange and the Irvine Company have provided for the deployment of three to four traps a year during this time period.

Progress

Approximately 5,156 BHCBs have been captured and removed from the local population over the last 20+ years of implementing the program. Throughout the program, the number of traps used in a season has ranged from 7 to 24. In 2017, in accordance with the 2016-18 Strategic Plan for the NCC, staff reviewed and identified potential changes in the management program for the BHCB. In addition to reviewing program logistics and capture history for both the San Joaquin Hills and the Eastern Transportation Corridor, in 2017 staff discussed modifications with the USFWS, CDFW, researchers, contractors, and partnering organizations who are familiar with BHCB trapping efforts both locally and across the region.

For the 2022 season, the budget was increased to include time for scouting new trapping locations. Creation of a vision for reorganization of the program was initiated in 2018 and the discussion is anticipated to continue in 2024. NCC and the Wildlife Agencies will convene a workshop with partners and BHCO experts to discuss the current program and possible alternative approaches to evaluating the effectiveness and improving the efficiency of the existing program.

5. Mountain Lion Project

Project Title	Mountain Lion Project
Contractor(s)/Researcher	UC Davis (Vickers)
Time Period	2011-2024
Total Project Cost	\$145,000
Amount Budgeted	FY2023: \$10,000; FY2024: \$10,000
Fund	Endowment

Matching Contribution(s)	--
Landowner Involvement	OCP, OCWR, COI, IC, CDFW, IRWD, TCA
Project Status	Ongoing
Project Progression	On schedule
Program Class	Monitoring/Research
Program Area	Sensitive Biological Resources
Resource	Mammalian Carnivores
Project Purpose	Inform land management strategies around: (1) landscape connectivity and conservation; (2) health and disease; and (3) minimizing conflicts between cougars and people.
Available Report(s)	<i>See below</i>
Available GIS Product(s)	--

Overview

The ongoing study of the mountain lion (*Puma concolor*) in southern California is headed by Dr. Walter Boyce and Dr. Winston Vickers of the Wildlife Health Center at UC Davis. Dr. Vickers is the field lead for the project. This mountain lion or cougar research focuses on: (1) landscape connectivity and wildland conservation, including road crossings and the effects of fire; (2) genetics, health, and disease, especially focused on diseases transmitted between cougars and other species, exposure to rodenticides, and genetic assessment of the population; (3) minimizing conflicts between cougars and people; (4) and predation on bighorn sheep and interactions with deer in the Peninsular Mountain Ranges. The study area encompasses Orange, Riverside, and San Diego Counties. Cougars have been captured, sampled, and GPS-collared over a wide portion of these counties. Cougars from the study have utilized lands as far north as the Highway 91 and 241 Toll Road junction in the northern Santa Ana Mountains in Orange County and approximately 50 miles south of the border in Mexico.

Progress

To address the goals of the third phase of the study, the researchers continued field efforts to complete capturing, sampling, and GPS collaring of cougars. In addition, researchers conducted extensive camera monitoring of wildlife corridors and crossings in the Santa Ana Mountains. Included in this list of areas are all the major wildlife crossings along the studied sections of the 241 Toll Road in Orange County.

Key Findings

The mortality data collected during the study suggests that cougars throughout southern California face significant, and likely increasing, threats secondary to habitat loss and fragmentation, continued expansion of the human population, roads, and development. Genetic and corridor analyses completed in 2016 highlight the importance of male lions as genetic dispersers, with home ranges averaging approximately 145 square miles in size. The isolating nature of urban development and creation of major state highways has isolated extant populations of mountain lions.

Publications in peer-reviewed scientific literature resulting from the work include the following:

Benson JF, Mahoney PJ, Vickers TW, Sikich JA, Beier P, Riley SPD, Ernest HB, Boyce WM. 2019. Extinction vortex dynamics of top predators isolated by urbanization. *Ecol App* 29:3. <https://doi.org/10.1002/eap.1868>

Gustafson KD, Vickers TW, Boyce WM, Ernest HB. A single migrant enhances genetic diversity of an inbred puma population. *Royal Society Open Science* (2017) 4:170115. <http://dx.doi.org/10.1098/rsos.170115>

Zeller KA, Vickers TW, Ernest, HB, Boyce WM. Multi-level, multi-scale resource selection functions and resistance surfaces for conservation planning: Pumas as a case study. *PLoS ONE* (2017) 12(6): e0179570. <https://doi.org/10.1371/journal.pone.0179570>

Zeller KA, McGarigal K, Cushman SA, Beier P, Vickers TW, Boyce WM. 2017. Sensitivity of resource selection and connectivity models to landscape definition. *Landscape Ecol* (2017) 32:835. <https://doi.org/10.1007/s10980-017-0489-8>

Vickers TW, Sanchez JN, Johnson CK, Morrison SA, Botta R, Smith T, Cohen BS, Huber PR, Ernest HB, Boyce WM. 2015. Survival and mortality of Pumas (*Puma concolor*) in a fragmented, urbanizing landscape. *PLOS 1* 10:7. doi: [10.1371/journal.pone.0131490](https://doi.org/10.1371/journal.pone.0131490)

Notes

The project is a collaborative effort with many partners assisting in funding and logistics. NCC was a minor financial contributor to the project in 2011 (\$25,000) and 2012-2023 (\$10,000 each year). In 2024, NCC will again contribute (\$10,000) to UC Davis in support of the project. Over the years, NCC funding has allowed the principal investigators to expand analyses, spend extra time on capture or camera work, and replace equipment not otherwise covered by other funding.

6. NCC Database Mgmt

Project Title	NCC Database Mgmt
Contractor(s)/Researcher	ESRI, Vestra, Map the Point
Time Period	2014-2024
Total Project Cost	\$198,271
Amount Budgeted	FY2023: \$30,915; FY2024: \$85,000
Fund	Endowment
Matching Contribution(s)	TNC: \$75,323
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNP, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing-delayed
Project Progression	Resuming after postponement due to changes in direction and NCC/partner staffing
Program Class	Database Management
Program Area	Multiple
Resource	Multiple
Project Purpose	Develop a coordinated approach to the long-term management of ecological data within the NCCP/HCP Reserve that focuses on

	system integration, interoperability, and user efficiency
Available Report(s)	--
Available GIS Product(s)	https://nroc.maps.arcgis.com

Overview

For NCC to effectively use science to inform adaptive resource management, the integration of data collection, processing, analysis, storage, retrieval, and sharing is paramount among participants in the NCCP/HCP. While every partner in the NCCP/HCP operates independent systems for storage and access to data relevant to the Reserve, the integration of these tools and long-term coordination and management of the collaborative process is critical to NCC's mission to coordinate effective management of the natural resources present within the Reserve.

Progress

The County, as the signatory responsible for hosting and managing the spatial data (GIS) associated with implementation of the NCCP/HCP, is to receive and archive all reports, data, and meta-data, and share spatial data and models generated by NCC-funded projects. Because of the high level of complexity of the data in general and the variation of data collected, and methodologies used across all the studies, NCC, in the designed schema employed by the County's contractor in 2014-15 (Vestra Resources), chose to organize ecological data archived with the County into a two-tiered hierarchy. The highest level is a set of point feature classes organized into taxonomical types, and the second, or detailed, level is organized based on NCC projects. In 2024, NCC staff will continue to engage ESRI, Map the Point, and OC Parks staff to further develop ArcGIS online database.

7. Target Bird Monitoring

Project Title	Target Bird Monitoring
Contractor(s)/Researcher	USGS; Leatherman BioConsulting, Inc.
Time Period	2014-2024
Total Project Cost	\$930,973
Amount Budgeted	FY2023: \$168,973; FY2024: \$288,527
Fund	Endowment
Matching Contribution(s)	TNC: \$217,000
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	On schedule
Program Class	Monitoring/Research
Program Area	Sensitive Biological Resources
Resource	Target Bird Species – California Gnatcatcher and Cactus Wren
Project Purpose	Develop a comprehensive monitoring program for both the California Gnatcatcher and Cactus Wren
Available Report(s)	CACW 2023 Surveys and Habitat Mapping. Prepared by Leatherman Feb. 2024.
Available GIS Product(s)	--

Overview

In support of development and implementation of NCC's long-term Target Bird Species monitoring program, NCC has launched a collaborative planning project with the US Geological Survey (USGS), San Diego Management Monitoring Program (SDMMP), The Nature Conservancy (TNC), and Colorado State University (CSU), focused on identifying goals, strategies, and objectives, in support of the long-term management and assessment of the NCCP/HCP Program in supporting conservation of the two target species. In the development of the plans, emphasis is to be placed on the identification of robust, but cost-efficient, monitoring strategies that are well-coordinated with other southern California NCCP/HCPs.

Progress

At the California Gnatcatcher Regional Monitoring Workshop, in addition to discussing the results of the 2016 surveys and estimates, revisions to the underlying habitat suitability model were presented by Dr. Kris Preston (SDMMP). Round two of the regional surveys for the California gnatcatcher were completed in 2020 and round three will be completed in 2024. The reports for the surveys conducted in NROC and adjacent conservation easements are archived on the NCC website library.

NCC partnered with TNC to survey all mapped habitat across the Coastal and Central Subregion for the presence of cactus wren in 2018. Field surveys were designed to include surveys in areas recently burned in the Canyon Fire I & II (October 2017) and Silverado Fire (September 2020), providing the first assessment of the impact of the fire on cactus wren. A repeat survey was completed in 2023, both for mapping the approximately 1,600 cactus scrub patches and 870 point surveys. The report is provided in the link above and in the NCC reports library.

8. Economics Benefits of NCCP/HCP

Project Title	Economic Benefits of NCCP/HCP
Contractor(s)/Researcher	Economic & Planning Systems
Time Period	2022-2024
Total Project Cost	\$4,490
Amount Budgeted	FY 2023: \$15,110; FY2024: \$35,400
Fund	Endowment
Matching Contribution(s)	--
Landowner Involvement	All
Project Status	On-going
Project Progression	Delayed
Program Class	Monitoring/Research
Program Area	Sensitive Biological Resources
Resource	Target and Covered Spp. & Habitats
Project Purpose	Identify economic benefits of establishing NCCP/HCP
Available Report(s)	--
Available GIS Product(s)	--

Overview

Economic & Planning Systems, Inc. (EPS) will conduct and prepare an Economic Benefits Study of the County of Orange Central/ Coastal NCCP/ HCP in close collaboration with Natural Communities Coalition staff and board. The purpose of this Study will be to articulate the broad range of benefits that are generated by this NCCP/ HCP.

Progress

The analysis will include the following: an estimation of property values at varying buffers around the NROC (assumes an open space premium), an assessment of the economic value of recreation, and an estimation of the streamlining value of the plan on development. At the October 2023 Executive Committee meeting, a presentation was given on the progress of the analysis and suggestions for improvement were provided. Deliverables are expected in the summer 2024.

9. Land Manager Training

Project Title	Land Manager Training
Contractor(s)/Researcher	Land IQ, Nakae & Associates
Time Period	2014-2024
Total Project Cost	\$70,000
Amount Budgeted	FY2023: --; FY2024: \$71,500
Fund	Endowment
Matching Contribution(s)	--
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CONB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing-Postponed
Project Progression	Delayed due to COVID-19 and changes in staffing
Program Class	Education/Training
Program Area	Habitat Restoration
Resource	Coastal Sage Scrub
Project Purpose	Provide land manager training in the field of habitat restoration and fuels management
Available Report(s)	--
Available GIS Product(s)	--

Overview

The land manager training program is to provide both classroom and field-based training in the field of habitat restoration and fuels management. As envisioned, training would involve site visits to active habitat restoration sites and fuel modification zones both within and outside the NCCP/HCP Reserve, demonstration projects, as well as field and lab-based lectures on pertinent restoration and fuel management topics, including, but not limited to: soils, mycorrhizae, site selection, site preparation, seed collection, use of topsoil, seed and planting, irrigation, vegetation thinning, and site maintenance. The training program would be offered to

land managers, landowners, and key partners involved with the Central/Coastal OC NCCP/HCP.

Progress

The first expression of the program providing land managers with training on priority natural resource issues is now considered to be complete. Consistent with the new strategic plan for NCC, a second expression of the program is scheduled to be initiated in 2023.

In 2014, NCC, together with Land IQ, sponsored a two-day training workshop on the role of soils in habitat restoration for land managers, researchers, and conservation practitioners. The workshop featured the soil scientist, David Kelley, and was structured to offer a morning in-class lecture experience followed by an afternoon field program on both days. The relationship between soils and southern California plant communities was highlighted, as well as techniques in soil assessment and habitat restoration methodologies.

In the spring of 2015, NCC, together with Land IQ, sponsored a second workshop on soils and restoration in partnership with CCSP. The two-day training workshop was designed to highlight two long-running restoration projects on the bluffs at CCSP and San Onofre State Beach. The two projects emphasize the role of soil compaction and microbes in the restoration of coastal sage scrub. Over the course of two-days in April, participants, together with David Kelley and the team from Land IQ, explored both restorations and discussed the specific strategies used to overcome the unique challenges presented by each site.

In May 2017, following approval of the Wildland Fire Management Plan (WMP; restructured as the Stakeholder Implementation Guide), NCC staff hosted a workshop for landowners and stakeholders discussing the evolution and important components of the WMP. Contractors, Michael Huff (Dudek) and Carol Rice (Wildland Res Mgt), involved with development of the plan and individual stakeholder guides, participated in the meeting, addressing questions, and providing the audience with an overview of the process involved with plan development.

Following finalization of the Habitat Restoration and Enhancement Plan update, NCC is planning to host multiple training sessions highlighting the utility of the plan in aiding and designing landscape-scale restoration within the reserve. In 2024, NCC staff, with feedback from the Land Management Committee, will develop training sessions structured through field trips coupled with a demonstration restoration project implementing the HREP.

Key Milestones

1. Organize and Host Soils Workshop (Due: 31 December 2014): *Completed Nov. 2014*
2. Organize and Host Soils Workshop II (Due: 15 May 2015): *Completed Feb. 2015*
3. Organize and Host Training Session on Habitat Restoration and Enhancement Plan Update (Due: 31 December 2019): *Delayed*

10. Western Spadefoot Mgmt

Project Title	Western Spadefoot Mgmt
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Contractor(s)/Researcher	UCLA, USGS, Land IQ, Nakae & Associates
Time Period	2016-2024
Total Project Cost	\$1,666,952
Amount Budgeted	FY2023: \$118,255; FY2024: \$125,000
Fund	Restoration
Matching Contribution(s)	\$757,000 (Wildlife Conservation Board)
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	On schedule
Program Class	Research/Monitoring
Program Area	Sensitive Biological Resources
Resource	Western Spadefoot
Project Purpose	Identify hotspots of genetic diversity for purposes of directing the location and informing the restoration strategy for construction of new breeding pools to augment the viability of the Western Spadefoot in Central-Coastal OC
Available Report(s)	2021 Western Spadefoot Toad Habitat Restoration Monitoring Report. Prepared by Land IQ Mar. 2022.
Available GIS Product(s)	--

Overview

Initial funding covered a two-year study conducting cutting-edge genetic analysis of western spadefoot breeding sites within and around the NROC. The work included analysis of comprehensive historical specimens sampled over the last two decades from throughout southern California, and additional samples non-destructively collected in 2016 and 2017 breeding seasons. Collectively, this effort will use population and landscape genetics methods to: quantify population size and connectivity as it has existed across the region historically, and in present-day; evaluate whether current, relatively passive management has led to healthy and stable populations; and, identify regions within the migratory capacity of the species where newly constructed vernal pool breeding sites stand the best chance of augmenting the viability of the species across Orange County, focusing on Central-Coastal.

The second phase of work is centered on construction of seasonal pools and upland restoration in select areas of the San Joaquin Hills utilized by western spadefoot for breeding. Creation of new breeding sites and restoration of adjoining upland habitat in the coastal subarea is recognized as essential to the long-term conservation of western spadefoot in the Subregion. Increasing breeding opportunities for spadefoot toads in the San Joaquin Hills is expected to both contribute to increases in overall population size and long-term persistence of metapopulation dynamics appearing to be present along the coast.

Progress

The project team spear-headed pursuit of grant-funding tied to the Local Assistance Grant program new funding made available through the Wildlife Conservation Board tied to Proposition 68. In total, requested funding allows the project team to complete approximately 15

acres of restoration, focusing the work in 5 sites, and construction of 12 seasonal pools of various sizes (consistent with what spadefoot toads are known to use in other areas). Planting of 125-150 mature, 3 ft tall clumps of salvaged prickly pear cactus (presently growing in a NCC cactus farm in the reserve) along with 2,000 salvaged cactus pads were planted at five of the restoration sites along Moro Ridge and Bommer Ridge. Funding from the state (together with matching funds from NCC) will cover described activities through March 2022, facilitating the seasonal pools two-years post construction and associated upland restoration through planting and seeding, and three full years of site maintenance. NCC is committed to additional maintenance and monitoring of the upland restoration and created pools through 2025, three-years beyond the limits of the grant period. The annual report is expected in March 2024.

Key Milestones

1. Siting and Pool Design Report (Due: 31 December 2019): *Completed*
2. Production of Restoration Plan (Due: 31 December 2019): *Completed*
3. Production of Installation Memo (Due: 30 June 2020): *Completed*
4. First-Year Restoration Monitoring Report (Due: 31 Mar 2021): *Completed*
5. Second-Year Upland Restoration and Completion of Seasonal Pool Construction (Due: 15 March 2022): *Completed*
6. Final Monitoring Report - Habitat Restoration (Due: 15 March 2022): *Completed*

11. Recreation Mgmt & Human Valuation

Project Title	Recreation Mgmt & Human Valuation
Contractor(s)/Researcher	Utah State University; Oregon State University
Time Period	2017-2024
Total Project Cost	\$832,982
Amount Budgeted	FY2023: \$148,800; FY2024: \$91,380
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CONB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	Delayed due to COVID-19
Program Class	Planning
Program Area	Recreation
Resource	Coastal Sage Scrub; Target Species
Project Purpose	Identify recreation management priorities related to natural resource protection present within the NCCP/HCP Reserve
Available Report(s)	<p><u>2021 Research and Findings Summary. By USU Research Team. Presentation to NCC Partners. Dec. 2021.</u></p> <p><u>OC Parks Trail Use Designation Pilot Project Report. Prepared by USU Research Team. Sep. 2022.</u></p> <p><u>Resource & Social Condition Monitoring & Indicators. Presentation Prepared by USU Research Team. Jun. 2023.</u></p>

	<u>Application of UAV Surveys & GIS to Monitor Trail Conditions. Prepared by USU Research Team. Sep. 2023.</u>
Available GIS Product(s)	--

Overview

Managers of urban-proximate wildland settings must often strike a careful balance with providing nature-based recreation experiences with the maintenance of ecological integrity. With over 3 million residents within a 30-minute drive of the NCCP/HCP Reserve, the demand for recreation experiences is ever present, and increasing. Equally important is the increasing need and desire for the conservation of natural resources and preservation of the rich natural heritage of an iconic area of the California coast.

The NCC has partnered with Utah State University and Oregon State University to implement a multi-year project designed to address ecological aspects, human benefits and values, and contemporary management approaches tied to recreation within the region. The research project, as designed, is to have four overall dimensions: 1) a determination of visitor use levels and spatial distributions; 2) an assessment of biophysical resource conditions; 3) an understanding of visitor perceptions, values and judgements; and 4) providing scientific expertise in park planning and management.

Progress

Dr. Chris Monz (Utah State University) and his team have collected data on visitor evaluations and biophysical changes on trails throughout NROC for several years. Their analysis of responses was from close to 2,000 interviews of park visitors conducted and movement data collected from over 1,200 park visitors. They have shared their results at numerous partner and committee meetings and summarized the finding into several publications (see table above for reports). In 2024-2025, NCC staff and the Dr. Monz’s team will work with partners to develop a recreation trail management plan focusing on monitoring visitor use and changes to trail conditions and adjacent habitat.

Environmental changes were collected both using aerial imagery and ground-based surveys and focused on physical changes to trail conditions. A comparative analysis on measuring physical changes to trail conditions was completed on small segments of trails in the Coastal Reserve in 2023. The results were part of a multi-site publication (see table above for report).

12. Vegetation Classification Update

Project Title	Vegetation Classification Update
Contractor(s)/Researcher	AIS, CNPS
Time Period	2023-2025
Total Project Cost	\$26,986
Amount Budgeted	FY2023: \$26,986; FY2024: \$205,379
Fund	Endowment
Matching Contribution(s)	\$30,000 (TNC)
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CONB, UCI, IRWD, TCA, IC, MWD

Project Status	New
Project Progression	-
Program Class	Monitoring/Research
Program Area	Sensitive Biological Resources
Resource	Vegetation
Project Purpose	Identify and classify vegetation group by plant alliance, and provide update from previous survey (2014)
Available Report(s)	--
Available GIS Product(s)	--

Overview

NCC is partnering with Aerial Information Systems, Inc. (AIS) and CNPS to complete an update (NAIP 2022 base imagery) to the existing vegetation delineations and interpretations (2012 base imagery) previously produced by AIS in 2015. The proposed study area is the same as the original mapping effort consisting of 85,705 acres of natural vegetation, urban/developed areas, agriculture, and water, which will be updated using the most current available digital orthophotography covering the study area. The update will follow the same mapping protocols as the original vegetation map and update attributes as necessary.

Progress

The update to the vegetation classification polygons through photo interpretation is complete and is to be followed up by additional field work in Spring 2024. Once the field check and ground truthing is complete the accuracy assessment will begin which is currently scheduled for late 2024 and will continue into 2025.

The final product will be combined with the existing ArcGIS vegetation database for the same geographic area producing a composite geodatabase containing both eras (2012 and 2022) enabling the end user to create displays of the older vegetation units together with the updated information thus providing a useful analysis tool for resource managers.

13. Vegetation Monitoring & Communication

Project Title	Vegetation Monitoring & Communication
Contractor(s)/Researcher	UCI, Conservation Biology Institute, WildSpring Ecology
Time Period	2017-2023
Total Project Cost	\$1,146,500
Amount Budgeted	FY2023: \$104,854; FY2024: \$125,000
Fund	Endowment
Matching Contribution(s)	Voth Family Foundation (\$150,000); The Nature Conservancy (\$361,250)
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CNB, UCI, IRWD, TCA, TIC, MWD
Project Status	Ongoing
Project Progression	Delayed due to COVID-19
Program Class	Monitoring/Research
Program Area	Sensitive Biological Resources
Resource	Coastal Sage Scrub

Project Purpose	Monitor landscape-level change in vegetative composition and structure through time and create dashboard metrics concerning the health of the Reserve
Available Report(s)	<u>2023 Vegetation Monitoring Report. Prepared by UCI. Sep 2023.</u> <i>Updated Vegetation Monitoring Program. Prepared by WildSpring Ecology. Dec. 2022.</i> <i>Vegetation Community Monitoring: Goals and Objectives. Prepared by CBI. Mar. 2020.</i>
Available GIS Product(s)	--

Overview

Discussed collectively among partnering agencies and organizations over the last several years, development of an effective vegetation monitoring program for the Reserve is being led by UC Irvine’s Center for Environmental Biology (CEB), Conservation Biology Institute (CBI), and WildSpring Ecology. The program, as presently outlined, will provide defensible, objective measures of the extent and quality of coastal sage scrub and associated habitats within the Reserve and adjacent conservation lands. Collected information is to capture changes in vegetative community composition, structure, and dynamics over time, promoting a shared understanding of the vegetative response to drivers and informing decisions related to management.

Progress

In 2019, NCC contracted with CBI and WildSpring Ecology to review and propose changes to sampling and response design, and revision of program goals and objectives. The goals of the review were to: 1. revise the monitoring goals and objectives; 2. provide greater spatial coverage of the coastal subarea; 3. manage costs; 4. reduce the physical impacts to vegetation from repeat surveys; and 5. ensure the program is well-positioned to answer prominent questions tied to the recovery of shrublands following repeat fire and short, long-term effects of drought, habitat recovery following restoration, and sustained treatment of invasive species. The effort resulted in the two reports listed above. The revised plot sampling design was given to UCI and the adjusted sampling scheme has been implemented since 2021. The vegetation monitoring work performed is funded at a nearly 50:50 cost share between TNC and NCC. Following the implementation phase of the new design, detailed reports will be submitted every three years, but data collected will be provided annually. A review and update to the vegetation monitoring program will be incorporated with the development of the NROC monitoring program scheduled for 2024-2025.

Key Milestones

1. Delivery of Vegetation Data with Relevant Meta-data (Due: each year): *Ongoing*
2. Delivery of Vegetation Data Report (Due: each year): *Ongoing*
3. Delivery of Oak Monitoring Data with Relevant Meta-data (Due: each year): *Ongoing*
4. Delivery of Oak Monitoring Report (Due: each year): *Ongoing*

14. Trail Use Study

Project Title	Trail Use Study
Contractor(s)/Researcher	Utah State University
Time Period	2021-2024
Total Project Cost	\$62,723
Amount Budgeted	FY2023: \$16,872; FY2024: \$12,314
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	OC Parks
Project Status	On Schedule
Project Progression	Ongoing, completed pending 2 nd report
Program Class	Monitoring
Program Area	Recreation
Resource	Coastal Sage Scrub; Target Species
Project Purpose	Identify human-use patterns through change in trails use type in the NCCP/HCP Reserve
Available Report(s)	<u>Orange County Parks Trail Use Designation Pilot Project, by Monz et al., Sep. 2022.</u>
Available GIS Product(s)	--

Overview

Parks and open space near population centers are often highly desirable as people in our increasingly urban society seek opportunities to experience nature for exercise and renewal on a regular basis. This demand has increased, in some cases dramatically, and trends raise concerns as to whether other protected area goals are being compromised, such as the conservation of habitat for plant and wildlife species.

Trails are focal aspects of the visitor experience in parks and natural areas and thus trail use and trail condition can have a significant effect on visitor's overall experience. OC Parks will be employing direct management strategies on select trail segments to provide access to a wide range of recreation activities, maintain a safe and enjoyable experience, and assure that visitor use, and associated behaviors are not resulting in resource (ecological) damage. This study will work closely with OC Parks to study the short term (6 month to 1 year) ecological and social consequences of various trail management strategies under consideration and based on these findings, will develop longer-term monitoring approaches and recommendations.

Progress

Visitor surveys collected data on visitor demographics, experience-use history, knowledge, and evaluative questions on the trail management, resource conditions and social conditions experienced. Surveys and trail condition mapping were conducted in spring 2021 prior to any changes in management strategies on trail use. Post-treatment surveys and mapping were completed in late summer following the end of the experimental change.

Visitor use levels on treatment and control trail segments were determined using automated trail counting techniques to document temporal patterns of visitor use on a continuous basis for the study period. Extensive trail characteristics will be measured and monitored including trail slope, aspect, type of trail tread, elevation variation (i.e., tread rugosity).

Perceptions of trail safety and conflict between activity types were explored as well as potential tradeoffs between recreation use, conservation goals and safety. The report, listed in the table above, was completed in late 2022 (see table above for report). An assessment of any changes to the biophysical resources of trails as a result of the experiment will be delivered in early spring 2024.

15. NDVI Fuels Map

Project Title	NDVI Fuels Map
Contractor(s)/Researcher	Eagle Aerial/Quantum Spatial, OCFA
Time Period	2019-2023
Total Project Cost	\$5,802
Amount Budgeted	FY2024: --
Fund	Endowment
Matching Contribution(s)	CalFire Fire Prevention Grant ~\$5,000,000
Landowner Involvement	All, OCFA
Project Status	Completed
Project Progression	--
Program Class	Fire Management/Invasive Spp. Management
Program Area	Monitoring, Restoration
Resource	Oak Woodland, Riparian
Project Purpose	Map existing GSOB/ISHB infested areas, identify likely new areas to be invaded, support treatments to reduce GSOB/ISHB spread
Available Report(s)	--
Available GIS Product(s)	OCFA NDVI Vegetation Analysis, by Eagle Aerial & NV5 Geospatial. Mar 2022. OCFA Imagery Grid Map & OCFA Imagery Cache

Overview

The Normalized Differenced Vegetation Index (NDVI) is considered a reliable indicator of plant biomass and vegetation primary productivity and time series have been routinely used to measure vegetation dynamics and ecosystem phenology over large geographic areas. Important variables include the magnitude of greening, peak activity, and drying phases of vegetation, providing information on key aspects of vegetation functionality, such as seasonality, productivity, and inter-annual variability. These factors are critical for fire resource and management planning since the phenological status of vegetation represents the main driver affecting fuel availability and moisture content.

Originally, the goal of the project was to explore the appropriate spatial and temporal scale and fuel moisture variable (NDVI vs. other similar derived variable) in mapping the condition of fuels. The recent progression of GSOB/ISHB in Orange County resulted in a realignment of the goals and focus the mapping through the OCFA GSOB/ISHB fire prevention grant. In 2018 OCFA was awarded a CalFire Fire Prevention Grant to monitor and remove heavily infested GSOB/ISHB trees throughout the State Responsibility Area. NDVI mapping and spread modeling will be used to identify areas of weakened trees and to facilitate identification of potentially new infested areas and monitor for changes following treatments.

Progress

Eagle Aerial (EA), partnering with Quantum Spatial (now NV5 Geospatial), used imagery from 2010-2019 to segment the tree canopy within the wildlands and classify segments by species or species groups. GSOB/ISHB monitoring data collected by OC Parks, State Parks, and others were used in the modeling of tree health and vulnerability due to infection levels. The results highlight potential ISHB and GSOB infestation but also the impact of drought or fires on tree health in the region. Datasets created by this project will provide information that can support planning for pest management and to some degree fire management within the study area. The report is available in the link above.

16. Connectivity Rapid Assessment

Project Title	Connectivity Rapid Assessment
Contractor(s)/Researcher	USGS
Time Period	2023-24
Total Project Cost	--
Amount Budgeted	FY2024: \$75,901
Fund	Monitoring
Matching Contribution(s)	--
Landowner Involvement	All
Project Status	New
Project Progression	--
Program Class	Land Management
Program Area	Monitoring
Resource	Connectivity
Project Purpose	Conduct a rapid review of special linkages, existing use, and non-Reserve open space for their contribution to connectivity
Available Report(s)	--
Available GIS Product(s)	--

Overview

The NCCP/HCP designated specific non-reserve lands as “Special Linkages, Existing Use, and Non-Reserve Open Space.” These lands are in addition to the lands designated for inclusion into the Habitat Reserve System. These lands were not considered essential but were designated as areas that contained target species or habitat that could enhance connectivity

between elements of the Reserve. These lands include areas that could provide either an opportunity to conserve habitat useful for connectivity or support of target species. The USGS will evaluate the functionality and ecological viability of these lands illustrated in the attached map.

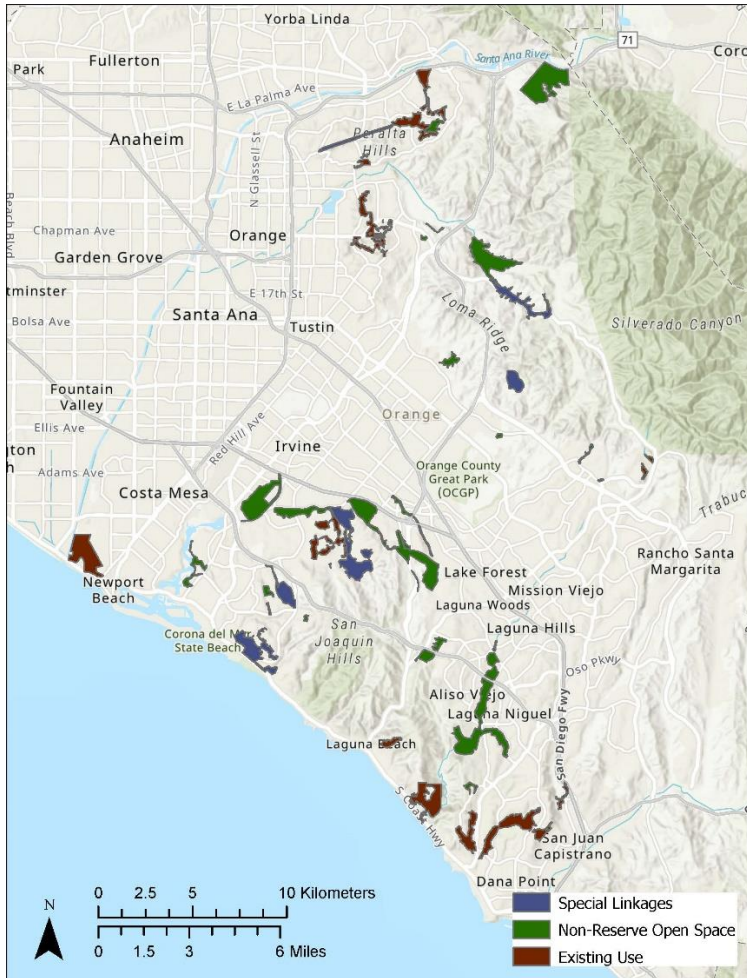


Figure 1. Map of NCCP/HCP Non-Reserve Land Designations

The goal of this project is to conduct a rapid review of approved NCCP/HCP Special Linkages, Existing Use, and Non-Reserve Open Space properties that contribute to connectivity and develop a report of ecological conditions. USGS plans to evaluate these lands for ecological relevance and functionality based on literature, recent studies on wildlife movement in the area, and ground-truthing specific locations. The evaluation will consist of inquiries into these designated lands including, but not limited to: Do these linkages function, are they doing what the plan intended in 1996? Has development been built on/around them so that they are no longer functional? Is the quality of current culverts and other infrastructure useful for movement and connectivity? What changes are suggested to improve connectivity with infrastructure, habitat restoration, or other management options, even though they are outside of the Reserve?

USGS will evaluate the Special Linkages, Existing Use, and Non-Reserve Open Space identified in the NCCP/HCP across the Central and Coastal Reserves through field observations and surveys and a review of existing data from these areas. USGS will review and transcribe existing data for these areas within the land designations, including conserved lands and existing culverts, bridges, and other infrastructure, as well as assess the habitat type and quality in terms of functionality for connectivity. USGS plans on assessing these linkages for five focal taxa: mountain lions, coyote, bobcat, deer, as well as both tolerant and sensitive small terrestrial vertebrates. While reviewing these areas for connectivity, USGS will assess the probability for each of these taxa to move across the landscape and scout for potential routes within these areas and ground truth their findings in person to review the existing habitat and infrastructure, or lack thereof, not seen in aerial imagery. USGS will create a list of management options to increase connectivity within each area designation.

The results of this work will be included in a USGS Data Summary, including:

- Evaluation of the condition of the 3 non-reserve land designations described in the NCCP/HCP across the Central and Coastal Subregion.
- Management options to improve the ecological functioning of designated non-reserve lands across the Central and Coastal Subregion.

This USGS Data Summary is expected to be completed by December 31, 2024.

17. Laguna Canyon Fuels Mod

Project Title	Laguna Canyon Roadside Hardening
Contractor(s)/Researcher	OCFA, Sage Environmental
Time Period	2018-2024
Total Project Cost	\$8,390
Amount Budgeted	FY2023: \$3,890; FY2024: \$5,000
Fund	Restoration
Matching Contribution(s)	CalFire Fire Prevention Grant \$3,676,400; OCFA, CoLB
Landowner Involvement	OCP
Project Status	Ongoing
Project Progression	On schedule
Program Class	Restoration
Program Area	Biological Resources
Resource	Native Habitat
Project Purpose	Harden roadside strip from annual grassland to cactus-dominated vegetation to reduce fire spread potential from roadside ignitions and improve habitat.
Available Report(s)	--
Available GIS Product(s)	--

Overview

Through the city fire department, Laguna Beach (LBFD) was awarded a grant from the CalFire Fire Prevention Fund to reduce the fire hazard and improve the native habitat in Laguna Canyon. The project consists of hazardous fuels reduction in the urban community-wildland interface along Laguna Canyon Road and restoration in Laguna Coast Wilderness Park.

Restoration was included in the project to fulfill the California Climate Investments carbon sequestration requirement of the grant program. NCC will contribute staff time and funding to the project, focusing on planting cactus along Laguna Canyon Road as an experimental approach to reduce the potential for fire spread into the Reserve from roadside ignitions.

Progress

In 2020, site preparation was completed using crews from OCFA and the CA Conservations Corps. Ongoing maintenance will be conducted by OCFA hand crews and supplemented by contractors when needed. Approximately 2,500 cactus pads were planted in the early spring. Several weed maintenance and cactus pad watering events were conducted in the spring and early summer. Due to herbivory and less than normal rainfall, approximately 500 pads were planted in winter 2021 to replace pads that were either eaten or dried up. Weed maintenance and watering, as needed, will continue in the spring 2024.

18. Ecological Health Assessment

Project Title	Reserve Health Assessment
Contractor(s)/Researcher	O'Herron Consulting, UCI, AECOM, USGS
Time Period	2019-2024
Total Project Cost	\$101,382
Amount Budgeted	FY2023: \$37,507; FY2024: \$87,299
Fund	Endowment
Matching Contribution(s)	--
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CONB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	Completion Expected Summer 2024
Program Class	Monitoring
Program Area	Sensitive Biological Resources
Resource	All
Project Purpose	Creation of suite of indicators and associated metrics of relevance to partners, the public, and elected officials reporting on the health of the reserve
Available Report(s)	--
Available GIS Product(s)	--

Overview

The project is intended to improve the ability of NCC and NCCP/HCP participants to report on the ecological health of the Habitat Reserve that informs the NCC Board of Directors, reserve landowners, managers, State and Federal wildlife agencies and the public.

Ecological health assessments involve collecting and synthesizing an array of information to try to understand the condition of complex natural systems and the processes driving conditions. Ecological health concepts provide valuable information for assessing ecosystem condition and management effectiveness and are an important component of ecologically based monitoring. The ecological health [assessment](#) of Mt. Tamalpais and the San Diego Management and

Monitoring State of the Regional Preserve System [Report](#) are models and we continued to contract with O’Herron Consulting to help inform and lead our effort.

Progress

In 2022, NCC staff and a team of participants representing Reserve landowners and managers established the foundational elements necessary to assess the status and trends of target species, select covered species and habitat types, and associated environmental stressors that could act as indicators for the ecological health assessment. In 2023, teams of scientists and land managers were assembled with a focus on 15 indicators and associated metrics to be included in the final assessment report that is expected to be completed in the summer of 2024. This robust suite of indicators and associated metrics is expected to be monitored into the future and utilized to complete future assessments. They will also be used to help inform an umbrella monitoring plan for the Reserve that will be designed to help protect the biological resources over the long term. It will be based on the principles set forth in the NCCP Planning Guideline, utilizing "adaptive management" meaning that management actions within the reserve will be monitored closely and modified (adapted) over time to respond to new scientific information, changing conditions, and habitat needs.

19. Native Seed Partnership

Project Title	Orange County Native Seed Partnership
Contractor(s)/Researcher	Sapsucker Consulting, AECOM, Beechwood Env.
Time Period	2020-2024
Total Project Cost	\$69,502
Amount Budgeted	FY2023: \$34,963; FY2024: \$215,000
Fund	Restoration
Matching Contribution(s)	\$4,540 (TNC)
Landowner Involvement	OCP, OCWR, COI, CCSP, CDFW, CONB, UCI, IRWD, TCA, IC, MWD
Project Status	Ongoing
Project Progression	On Schedule
Program Class	Land Management
Program Area	Habitat Restoration
Resource	All
Project Purpose	Support habitat restoration through development of locally sourced native seed and plant material
Available Report(s)	--
Available GIS Product(s)	--

Overview

The sourcing of native seed used for restoration projects within NROC is generally left to the discretion of restoration practitioners. Seed available from commercial growers is not necessarily ideal for widespread use within NROC depending upon the seed source and collection practices utilized. Seed collected from ecologically distant populations may risk being maladapted to restoration sites, causing restoration failures over time. Seed lots collected exclusively from small or isolated populations risk a loss of genetic diversity, potentially reducing

the resilience of restored populations in the future. Genetically appropriate seed and adequate genotypic diversity are important factors in the success of restoration projects—especially in fragmented landscapes (Bischoff et al. 2010; Gann et al. 2019). Moreover, the species diversity available from commercial growers may fall short of the desired diversity for a restoration project.

Custom native seed collection for specific restoration projects is often expensive and time-intensive, compared to the commercially available counterpart (Smith 2017). Timelines for building genetically appropriate seed at the desired quantities vary and may take up to 3 years or more to obtain (Armstrong et al. 2017, as cited in Erickson and Halford 2020), which is difficult to accommodate for most restoration projects within NROC.

Access to high-quality, genetically appropriate native seed in adequate quantities is a ubiquitous challenge faced by restoration practitioners in NROC and elsewhere (Cross et al. 2020). Consistent with the 2019-2021 strategic plan, the 2019 HREP suggests this may be addressed by a coordinated native seed effort within NROC. NCC and the various signatories to the Central-Coastal Subregion NCCP/HCP, have formed the Orange County Native Seed Partnership.

Progress

NCC staff met with partners and local and regional experts along with consultants monthly through 2022 to discuss the details of establishing a native seed enterprise capable of supplying native seed at quantities necessary to meet the restoration and enhancement needs of partners with the appropriate genetic quality to establish and flourish successfully in the Orange County ecoregion. This information was compiled into a strategic plan, completed in May 2023, with the help of Sapsucker Consulting and AECOM. The Orange County Native Seed Partnership has started implementation by contracting for Program Coordination with Beechwood Environmental LLC.

20. Grazing Plan – Best Practices

Project Title	Conservation Grazing Pilot
Contractor(s)/Researcher	Land IQ
Time Period	2021-27
Total Project Cost	\$129,771
Amount Budgeted	FY2023: \$41,442; FY2024: \$767,500*
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	OC Parks
Project Status	Ongoing
Project Progression	Delayed due to development of goals/objectives
Program Class	Land Management
Program Area	Habitat Restoration
Resource	All
Project Purpose	Evaluation of cattle as a landscape scale (100s-1000s of acres) tool to control weeds and decrease thatch for improving degraded

	non-native grasslands and reduce wildfire intensity.
Available Report(s)	2019 Sage Associates Summary Report
Available GIS Product(s)	--

*Funding for other project tasks (e.g., infrastructure, baseline monitoring, etc.) will be reviewed by the NCC Executive Committee once consensus is reached on project goals and design.

Overview

The HREP 2019 Update describes a landscape-scale approach to using adaptive weed management that focuses predominantly on long-term weed management using chemical and/or mechanical control followed by the addition of native seed at scales of 10-100s of acres. Chemical and mechanical control methods at 100s – 1000s of acres become impractical or impossible, primarily due to scale and timing. Consistent with the NCC 2019-2022 Strategic Plan, the NCC staff continues to work with Land IQ on development of a grazing management plan and pilot grazing study in Weir Canyon to provide a tool that land managers can deploy to remove thatch, control weeds, and reduce wildfire intensity at scales of 100s to 1000s of acres thus aiding habitat restoration and improvement. Goals and objectives for the project were developed through the TAC and targeted monitoring studies will be developed to determine grazing success. The pilot project is expected to last 5 years and if deemed successful, transitioned to OC Parks management, and further implemented in additional locations within the Reserve.

Progress

Infrastructure (e.g., fencing, water troughs, loading/unloading ramps and corrals, etc.) solutions including estimated costs have been determined and a grazing partner (Cal Poly Pomona) has been identified. The grazing partner has a limited number of cattle available, at least in the initial years, for the project so additional or a replacement grazing partner is being sought. A draft Conservation Grazing and Monitoring Plan (GMP) is under development based upon the goals and objectives developed through coordination with Technical Advisory Committee (TAC). NCC worked with the TAC to develop an experimental design to assess project outcomes and is completing the GMP including scientific studies working with local universities. Project approvals from the landowner (OC Parks) and from southern California Edison for a portion of the fence alignment are expected by the spring of 2024 with project implementation beginning in summer or early fall, 2024.

21. Horned Lizard Ecological Conditions

Project Title	Horned Lizard Ecological Conditions
Contractor(s)/Researcher	USGS
Time Period	2024
Total Project Cost	--
Amount Budgeted	FY2024: \$64,792
Fund	Monitoring
Matching Contribution(s)	--
Landowner Involvement	All
Project Status	New

Project Progression	On Schedule
Program Class	Land Management
Program Area	Monitoring
Resource	Connectivity
Project Purpose	Conduct a rapid review of special linkages, existing use, and non-Reserve open space for their contribution to connectivity
Available Report(s)	--
Available GIS Product(s)	--

Overview

Evaluate the opportunity to improve the ecological conditions in the reserve to benefit the San Diego horned lizard by addressing the competition between introduced ant species and the native ant species upon which the lizards depend. Blainville’s horned lizard (*Phrynosoma blainvillii*, previously known as the coast horned lizard) is a Species of Special Concern by the California Department of Fish and Wildlife. Geographically the species occurs throughout the Pacific Coast of California from northern California to Baja California, Mexico. The Blainville horned lizard (hereafter, horned lizard) has specialized habitat and diet needs which make it more susceptible to changes in the landscape. This project will evaluate the ecological conditions for the horned lizard within the Reserve.

Previous research by the USGS in the late 1990’s with the horned lizard on the Reserve identified that the absence of the Argentine ant, the presence of chaparral community plants, and the sandy substrates were correlated with presence and abundance of horned lizards. We propose to reevaluate the ecological conditions of the lizard by revisiting previous study sites to identify if changes have occurred on the landscape, in addition to surveying for horned lizards. USGS will conduct vegetation, ant community, and horned lizard surveys at sites where we previously detected horned lizards using pitfall arrays on Reserve lands. The pitfall arrays consisted of seven 5-gallon buckets buried in the ground connected by three shade cloth drift-fences (15-meter arms) in the shape of a Y. USGS will be covering the area where the pitfall arrays sites detected horned lizards but will not be using the pitfall array design to survey for horned lizards. Instead, they will be conducting timed surveys within the same area covered by the pitfalls. All horned lizards observed will be recorded. A subsample will be captured, weighed, measured, identified by sex and a tissue sample will be collected before being released. Sites to be surveyed include Weir Canyon, Limestone Canyon, Agua Chinon, and San Joaquin Hills West. We will compare and identify changes across time, evaluate current habitat conditions, and provide management options to improve ecological conditions for the horned lizard.

The results of this work will be included in a USGS Data Summary, including:

- A species list for all survey locations.
- Detailed maps of site locations and species detections.
- Comparison and evaluation of the vegetation and ant community changes.
- Evaluation of overall habitat conditions for the horned lizard.
- Management options to improve the ecological condition for the horned lizard.

This USGS Data Summary will be completed by December 2024.

22. Pond Turtle Site Assessment for Reintroduction

Project Title	Pond Turtle Site Assessment for Reintroduction
Contractor(s)/Researcher	USGS
Time Period	2024
Total Project Cost	--
Amount Budgeted	FY2024: \$55,397
Fund	Restoration
Matching Contribution(s)	--
Landowner Involvement	All
Project Status	New
Project Progression	On Schedule
Program Class	Monitoring and Research
Program Area	Habitat Restoration
Resource	California species of special concern
Project Purpose	Development of a reintroduction and monitoring plan for the establishment of additional suitable sites within the Reserve to expand the population of pond turtles.
Available Report(s)	--
Available GIS Product(s)	--

Overview

The southwestern pond turtle (*Actinemys pallida*; pond turtle) is the only native freshwater turtle in coastal California. Historically the range of the pond turtle extended from the central Coast Range of California south of San Francisco, into northern Baja California, Mexico. In southern California, dramatic declines have occurred due to habitat loss, altered hydrology, and the introduction of non-native species resulting in declines in 95% of its range. Only a few viable populations of pond turtles remain in southern California and pond turtle populations at the remaining sites often have low numbers of individuals. Currently the pond turtle is a state species of special concern and is under review for listing under the Endangered Species Act (U.S. Endangered Species Act [ESA 1973, as amended]).

There are currently two healthy pond turtle populations at Shady Canyon and the University of California Irvine San Joaquin Marsh within Orange County. These two populations could serve as the source for pond turtle reintroduction throughout the Reserve.

The purpose of this project is to evaluate potentially suitable pond turtle habitat at 20 to 30 sites within the Reserve. For each site evaluated, we will conduct a threat assessment and score each site for pond turtle suitability. Through this process, potential restoration actions will be identified at each site to increase pond turtle suitability. In addition, USGS will include pond turtle population estimates and demographics at Shady Canyon. Shady Canyon has been identified as one of two potential source populations for future translocation within Orange County. These actions will help provide baseline data and will be the first steps in the development of a pond turtle translocation and management plan for Orange County.

The results of this work will be included in a USGS Data Summary, including:

- Threat assessment for each site.
- Detailed maps of site locations.

- Restoration is needed to make the site suitable for pond turtles.
- Population estimates and demographic assessment for the Shady Canyon pond turtle population.

This USGS Data Summary will be completed by December 31, 2024.

2.4 Habitat Restoration and Enhancement Summary Tables

Total acres of new, ongoing, and completed upland habitat restoration sponsored by NCC in 2023 organized by management area.

Land Area	New	Ongoing	Completed	Total
Laguna Coast Wilderness Park (OCP)	--			14.2
-Elderberry Enhancement		8	3.7	
-WST Restoration			1.0	
-Cactus Salvage (Glass Creek)			1.5	
-CACW Linkage				
Whiting Ranch Wilderness Park (OCP)	--	--		9.7
-Cactus Salvage (Glass Creek)			4	
-TBD			5.7	
Crystal Cove State Park	--			20.7
-CSS Restoration		7	9.7	
-WST Restoration			2.0	
-TBD			2.0	
- Cactus Salvage (Glass Creek)				
San Diego Creek (OCFCD)	--	--	0.2	0.2
Bonita Canyon (TCA)	--	--	0.6	0.6
Coyote Canyon Landfill (OCWR)	--	--	0.3	0.3
UC Irvine Ecological Preserve	--	--		12.5
-EEMP			4	
-Measure M			8.5	
Irvine Ranch Open Space (OCP)	--	--	4.3	4.3
City of Irvine Open Space	--	--	2.9	2.9
Total	--	15	50.4	65.4

OCP = Orange County Parks; OCFCD = Orange County Flood Control District; TCA = Transportation Corridor Agencies; OCWR = Orange County Waste & Recycling

3.0 NROC CONSERVATION CUSTODIAL FUNDS

3.1 2023 Pacific Pocket Mouse Custodial Fund

Pursuant to a Letter of Agreement between the US Fish and Wildlife Service, the California Department of Fish and Wildlife, and the Natural Communities Coalition, a fund was created in 1998 to support research, recovery and enhancement efforts for the Pacific pocket mouse.

The agreement originally obligated Chandis Sherman (now Headlands Reserve LLC) to deposit funds annually for seven years into a segregated custodial account held by NCC, for a total of \$350,000. All funding has been received. Funds are dispersed at the direction of USFWS and CDFW for projects in support of pocket mouse research, recovery and enhancement.

The Pacific Pocket Mouse Custodial Fund Investment Account started the 2023 calendar year with a balance of \$118,124.85. The custodial fund on December 31, 2023 had a balance of \$132,974.13. The \$14,849.28 was attributable to a recovery in the stock market. No funds were disbursed for projects in 2023.

3.2 2023 Cowbird Fund

The beginning balance of the Cowbird Fund January 1, 2023, was \$2,119,845.87, and the ending balance on December 31, 2023, was \$2,391,372.34. A total of \$40,340.17 was spent on the Brown-headed cowbird management program in 2023. The results are summarized in project descriptions (Section 2.0) above.

4.0 NCCP/HCP RESERVE MANAGEMENT PLANS & POLICIES

4.1 Wildland Fire Management Plan

The work plan for 2024 includes fire management activities listed in the 2022-2024 NCC Strategic Plan, which was completed in 2022. Working with partners on the implementation of the Wildland Fire Management Plan (WFMP) and other activities in support of the NCCP/HCP is an ongoing priority. Key elements include educate land owners/managers on the theory, science, and implementation of actions specified in the plan; assessment of the status and condition of vegetation management along fuel modification zones; and coordinating management activities with our partners. One focus of the work plan will be an update to the WFMP. Some elements of the update will be identifying fuel management zones in the reserve, and updating pre-fire management priorities. Important 2023 milestones and activities for 2024 are described below.

- County of Orange Area Safety Taskforce (COAST)/Emerging Tree Pests of Orange County (EMTPOC): two working groups composed of representatives from fire departments, public utilities, transportation agencies, natural resource management agencies, landowners, non-profit groups, and other community members from across the county. The focus of COAST is to jointly identify problems and propose solutions for wildfire prevention. EMTPOC is an information sharing group that reviews the current status of tree pests including species infestations, new detections, and best management practices on treating infected areas. NCC's Wildland Fire Management Coordinator (WFMC) will continue participating in the working groups to discuss, plan, and implement initiatives aimed at decreasing fire risk and increasing fire safety, and managing tree pest infestations throughout the county. Main activities for 2024 include participating on working groups and supporting new staff acquired by IRC through grant funding to implement COAST's goals.
- Roadside Ignition Reduction Strategic Plan: the COAST Roadside Subcommittee worked on a grant funded strategic plan to develop a risk ranking of roadside areas to prioritize for treatments to reduce ignitions and fire spread. The plan is expected to be completed in summer 2024. The WFMC is coordinating with OC Parks and OCFA on the cactus fire barrier pilot project as part of the larger defensible space fuel reduction grant. In spring of 2021, *Opuntia littoralis* pads were planted along Laguna Canyon Road adjacent the Caltrans ROW. The goal of the project is to replace the non-native annual grass with cactus to "harden" the road shoulder against fire spreading into the wilderness from roadside ignitions.
- County-Wide Community Wildfire Protection Plan (CWPP): Through COAST, the plan was completed and signed in mid-2017. Several grants have been submitted and awarded over the past several years, including the tree beetle monitoring and treatment grant led by OCFA. The grants will fulfill strategies listed in the CWPP. The CWPP was

updated in 2021, which included a revision to the priority project table. Assisting our partners in fire and fuels management project development and submission to grant programs will continue in 2024. Participating on project implementation will help strengthen professional relationships and benefit the Reserve by providing more opportunities for collaboration on fire and fuels management.

- **Assessment and Monitoring of Fuel Modification Areas:** Working with partners, improve the condition, monitoring, and reporting on fuel management activities within and adjacent the Reserve. Information relevant to the Reserve will be incorporated into the revision of the NROC WFMP.
- **Fire Resource Advisory (READ) Information and Contact Protocol:** Activities for 2024 include support of fire training for park managers, continued participation in the OC Parks READ working group, review and update resource maps with park managers and OCFA, update and improve the geodatabase of sensitive species location data, improve file sharing of resource data to partners, and increase situational awareness and communication between fire responders and resource managers. Updating the fire resource and tactical advisory maps for use during wildfires is a continuous effort. These maps are important reference documents to inform fire suppression tactical response during a wildfire in the Reserve.

Fire Incidents

In California, wildfire activity in 2023 was low and similar to 2022. Approximately 324,917 acres burned in nearly 7,130 fires. Fortunately, the fire season in the county was very low with only 23 recorded vegetation fires. The largest was approximately 10.6 acres in the southern part of the county. There were two wildfires in and adjacent to the Reserve summarized in Table 1. Human activity continues to be the main cause of ignitions.

Table 1. Fire statistics for the NROC in 2022. FMU, Fire Management Unit.

Date	FMU	Fire Name; Area	Cause	Total Acres	Acres in NROC
08/02	Adj 10.02	Landfill, OCPF	Unk, maintenance	0.96	0
07/11	11.01	Serrano, SORP	Fireworks	3.53	3.53
Total				4.94	3.53

Fire Management

Interior Road Management: OCFA is often contracted by SCE and landowners to perform secondary road (dirt roads and trails within and adjacent to the NROC) maintenance which may include reducing overgrown vegetation along the road edge. For 2023, information was not available and will be reported in the next annual report.

4.2 Habitat Restoration & Enhancement Plan (HREP)

The first HREP was completed and approved by the NCC Board of Directors in 2003. In September, 2015, NCC engaged Land IQ, a consulting firm specializing in habitat restoration, in a three-year effort to review and revise the plan, and propose a list of prioritized sites within the Reserve for specific restoration actions. Key themes being addressed over the course of the project include: landscape-scale restoration actions; sources of uncertainty tied to climate change, fire, seedbank condition; adaptive management; cost-effect methods; natural rainfall driven restoration; maximization of return of investment; integration of planning efforts; measure of success; and stakeholder and resource agency engagement.

Land IQ has developed GIS-based models supporting identification of site-specific ecologically appropriate vegetation community restoration targets, advanced development of Best Management Practices based on lessons learned from active and historic restoration projects and practitioner expertise, and finalized a generalized, adaptive management approach for landscape-scale habitat restoration across the Reserve. The finalized, updated HREP was submitted to the NCC Board of Directors and Wildlife Agencies for approval in March 2019.

A land manager training project, with reviews of the key points of the HREP has been postponed until 2024-25. The project will assist the land managers in incorporating the plan into their land management activities that focus on restoration.

4.3 Recreation Management Plan

In support of a long-term recreation management program for the NROC, NCC partnered with national leaders in the field of recreation ecology from Utah State University and Oregon State University in 2016 to plan and implement a multi-year research project. As designed, the project is to have four overall dimensions focused on: (1) determining visitor use levels and spatial distributions; (2) assessment of biophysical resource conditions; (3) understanding of visitor perceptions, values, and judgements; and (4) providing of scientific expertise in park planning and management.

Working with signatories of the NCCP/HCP and other partners, the project leads identified fourteen management units within the Nature Reserve of Orange County as high priority for assessment and monitoring of recreation use. The project employed both continuous assessment and sampling approaches to establish baseline conditions. Tasks included field assessment of the location and condition of trails, sites, and other areas of visitor use, determination of the spatial distribution of use, and an assessment of visitor attributes and preferences, demographics, motivations, values and judgments of resource and social conditions.

Tasks focused on dimensions 1-3 listed above were conducted in two distinct phases. The first phase was three years in duration, with social and biophysical field sampling which ended in 2019. A series of presentations and reports were provided to our partners. The second phase, focused on informing management and conservation goals, includes development of visitor norm curves, thresholds of acceptability, and mapping tied to resource condition. Field surveys were completed in 2021 and a presentation and summary report, as well as recreation management workshop, was completed in summer 2022 (for reports, see our [recreation management project page](#)).

To address the fourth dimension listed above, in 2023-2024, the recreation ecology team will lead a focus group on the development of monitoring indicators and protocols that are suitable for the diversity of management units present within the NROC. The monitoring will be centered on estimating park visitation levels and associated impacts to biological resources.

**5.0 IMPACTS TO COASTAL SAGE SCRUB HABITAT IN THE COUNTY OF ORANGE
CENTRAL/COASTAL SUBREGION NCCP/HCP 2023**

**5.1 Authorized Take in the Reserve System by Participating Landowners as
Reported to NCC in 2023**

Since 2018, the NROC Annual Report has tracked in tabular form impacts to coastal sage scrub habitat within the boundary of the Central and Coastal Subregion of Orange County. The table below is an updated accounting resulting from Wildlife Agencies records and reporting of signatories to the Central and Coastal Subregion NCCP/HCP of Orange County Implementation Agreement for the 2023 calendar year.

As in 2018, the University of California Regents are not included in the table because they have not utilized any of the credits authorized in the Implementation Agreement for the Central and Coastal Subregion NCCP/HCP for Orange County. The figures in the table are based on Wildlife Agencies' archives, records from past Annual Reports, input from landowning signatories in response to the Wildlife Agencies' March 7, 2017 letter, and written communication from signatories in subsequent years to NCC. The Wildlife Agencies provided additional updates to the Take accounting tables in their comments on the 2019 NROC Annual Report. Those values are reflected in the following table along with comments.

Three written reports of take in 2023 were made to the Wildlife Agencies and NCC from the County of Orange—two from OCW&R and one each from OC Public Works and OC Parks. Total take reported by OCW&R was 4.67 acres, and 0.068 and 1.27 acres reported by OC Parks and OC Public Works respectively. No other incidents of take were reported in writing to the Wildlife Agencies or NCC in 2023.

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
12/01/96	OC Parks	Laguna Coast Wilderness Park (LCWP) Riding & Hiking Trail	0.1	394.9	Yes	
03/05/98	OC Parks	Laguna Cyn Rd Emergency Repair	0	394.9	Yes	
01/01/98	OC Parks	LCWP: Camarillo Trail	0.01	394.89	Yes	
03/05/98	OC Parks	Laguna Cyn Rd Emergency Repair	0	394.89	Yes	
12/01/98	OC Parks	Santiago Oaks Regional Park – Suncal Encroachment	0	394.89	Yes	Boundary Amendment approved in 1999
12/01/98	OCW&R	Phase V-A Liner Project at Frank R. Bowerman Landfill (FRB)	16.5	378.39	Yes	
12/01/99	OCW&R	Phase V-B/C Liner Project at FRB Landfill	13.1	365.29	Yes	
12/08/00	OCW&R	Phase V-D at FRB Landfill	16.0	349.29	Yes	
01/01/02	OC Parks	Upper Newport Bay Interpretive Center	2.7	346.59	Yes	
02/01/02	OC Parks	El Modena Orange Oak Acres Mutual Water Company waterline, Santiago Oaks	0	346.59	Yes	

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
12/01/02	OCW&R	FRB Landfill Emergency Landslide Remediation	13.04	333.55	Yes	
12/01/02	OCW&R	FRB Landfill Phase VII-A	5.2	328.35	Yes	
12/01/03	OCW&R	FRB Desilting Basin	2.4	325.95		Take reported by CDFW
01/01/04	OC Parks	LCWP: Nix Nature Center	0.35	325.6	No	Constructed after NCCP/HCP. To be reviewed by County and Wildlife Agencies in 2019
12/01/04	OCW&R	FRB Landfill Phase V-D Stockpile	1.19	324.41	Yes	
12/01/05	OCW&R	FRB Landfill Fuel Mod. Program	0.48	323.93	Yes	
12/01/05	OCW&R	Canyon II Stockpile	1.56	322.37	Yes	
12/01/05	OCW&R	FRB Landfill Phase VII-B	13.85	308.52	Yes	
12/01/07	OCPW	Laguna Cyn Rd.	21.51	287.01	No	Unable to locate final accounting of impacts. Will assume 21.51 from BO unless documentation stating otherwise can be submitted.
12/01/07	OCW&R	FRB Landslide Back-cut Project	19.68	267.33	Yes	
01/01/08	OCPW	San Diego Creek Maintenance Project	1.6	265.73	Yes	
12/01/08	OCW&R	Drainage 1	6.04	259.69	Yes	
01/01/10	OCPW	Alton Pkwy	0	259.69	Yes	
12/01/10	OC Parks	Aliso and Wood Cyns Wilderness Park (AWCWP) Car Wreck Trail	0.03	259.66		Take source: CDFW based on aerial photograph

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
12/01/10	OC Parks	Santiago Oaks Regional Park: Bumblebee, Chutes and Weir Cyn Trails Improvements	0	259.66	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/10	OCW&R	FBR Landfill Phase VIII-C	7.2	252.46	Yes	
12/01/11	OC Parks	AWCWP: Mentally Sensitive Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail project
12/01/11	OC Parks	AWCWP: Wood Cyn Trail Bank, Wood Creek Dip Crossing and Valido & Mathis Cyn Trails	0	252.46	Yes	Mathis Cyn Trail added by CDFW
12/01/13	OC Parks	Irvine Ranch Open Space: Limestone Ridge Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OC Parks	Irvine Ranch Open Space: Marel Spur Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OC Parks	AWCWP: Cholla Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OC Parks	LCWP: Los Trancos Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OC Parks	AWCWP: Hillcrest HOA Drainage	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
12/01/13	OC Parks	LCWP: Ridge Park Road Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OC Parks	Whiting Ranch Wilderness Park: Cactus Hill Trail	0	252.46	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/13	OCW&R	FRB Landfill: South Basin/Wetland Basin	0.32	252.14	Yes	
12/01/13	OCW&R	FRB Landfill: WCR	0.72 4.9	246.52		4.9 ac Take source: CDFW
12/01/13	OCW&R	FRB Landfill: East Flank Landslide Remediation	8.96	237.56	Yes	
12/01/14	OC Parks	LCWP: Marijuana Grove	0	237.56	Yes	Wildlife Agencies recommend coordination with NCC on future projects of this nature
12/01/14	OC Parks	AWCWP: Cholla Trail	0	237.56	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/14	OC Parks	LCWP: Lizards Trail	0.7	236.86	Yes	
12/01/14	OC Parks	LCWP: Emerald Cyn Bridges and Trail Improvements	0	236.86	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/14	OC Parks	Little Sycamore Bridge and Trail Improvements	0	236.86	Yes	Wildlife Agencies recommend coordination with NCC on future trail projects
12/01/14	OCW&R	FRB Landfill: Phase VIII-C	1.5	235.36	Yes	
12/01/14	OCW&R	East Loma Landslide	2.22	233.14	Yes	

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
12/01/14	OCW&R	FRB Landfill: East Flank Landslide Remediation	5.44	227.7	Yes	
12/01/15	OC Parks	AWCWP: Main Entrance Facility Improvements	0.79	226.91	Yes	
12/01/15	OCW&R	FRB Landfill: Office Facility Expansion	1.3	225.61	Yes	
12/01/15	OCW&R	FRB Landfill: Phase VIII-B1	1.91	223.7	Yes	
01/01/17	OCW&R	FRB Landfill: Phase VII-B2	8.72	214.98	Yes	
2018	OC Parks	Whiting Ranch WP	0.06	214.92		
12/03/21	OCW&R	Closed Santiago Cyn Landfill	0.40	214.52	Yes	Communicated in writing to Wildlife Agencies/NCC
11/01/22	OCW&R	FRB Landfill: Phase VIII A-1	6.70	207.82	Yes	Communicated in writing to Wildlife Agencies/NCC
06/09/23	OCW&R	Santiago Cyn Landfill	4.50	203.32	Yes	Communicated in writing to Wildlife Agencies/NCC
07/17/23	OCPW	Villa Park Dam Spillway Geotech	0.086	203.234	Yes	Communicated in writing to Wildlife Agencies/NCC
08/15/23	OCW&R	FRB Landfill: Fuel Mod	0.17	203.064	Yes	Communicated in writing to Wildlife Agencies/NCC
09/20/23	OC Parks	Laguna Canyon Rd Property Transaction Between OCP and Cal Trans	1.27	201.794	Yes	Communicated in writing to Wildlife Agencies/NCC

County of Orange	Total Take 181.172	Beginning Balance 395		
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Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
07/1997	Irvine Company	Laidlaw Gasline	0.07	1.93	Yes	
06/1999	Irvine Company	Tustin Ranch Estates	0.16	1.77	Yes	
01/2001	Irvine Company	Chambord Entry Wall	0.07	1.7	Yes	
10/2002	Irvine Company	Coyote Cyn Gas Probes	0.0001	1.6959	Yes	
02/2003	Irvine Company	Bommer Cyn East Fork Ranch Road	0.094	1.6019	Yes	
06/2008	Irvine Company	Santiago Hills Phase II: Infrastructure Improvements-Irvine Regional Park and Peters Canyon Reservoir	0.5484	1.0535	Yes	
Irvine Company			Total Take 0.9465	Beginning Balance 2		

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
02/13/97	Irvine Ranch Water District (IRWD)	Allen-McColloch Pipeline	0.005	59.995	Yes	
02/14/97	IRWD	Parcel 4 Sewer and Cart Path north of Spillway	0.18	59.815	Yes	
07/27/99	IRWD	Shady Cyn Reservoir & Pipeline	1.6	58.215	Yes	
09/19/00	IRWD	Shady Cyn Sewer	0.14	57.825	Yes	
12/01/14	IRWD	Baker Water Plant/ Serrano Creek Outlet	0	45.375	Yes	Utilized In-Lieu Mitigation Fee Program
12/01/14	IRWD	Baker Raw Water Pump Station and Pipeline Project	0	45.375	Yes	
12/01/15	IRWD	Serrano Summit	0	45.375	Yes	Utilized In-Lieu Mitigation Fee Program
	IRWD	Siphon Reservoir Interim Facilities	0.04	45.335	Yes	CDFW Records. No date
	IRWD	Irvine Lake Pipeline North Conversion Project	0.96	44.375	Yes	CDFW Records. No date
Irvine Ranch Water District			Total Take 15.625	Beginning Balance 60		

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
2003	Southern California Edison (SCE)	Shady Cyn Special Linkage: Convert Overhead 66kV to Underground (Santiago-Crown-Morro 66kV)	1	1.4	Yes	
2003	SCE	Santiago-Coygen-Crown Project	1	0.4		Take source: USFWS
Southern California Edison			Total Take 2.0	Beginning Balance 2.4		

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
08/01/03	Crystal Cove State Park (CCSP)	El Morro Conversion Sewer Project	0.04	17.92		
08/04/03	CCSP	Historic District Cottages and Infrastructure Project (PPUP implementation)	2.48	12.96		
Crystal Cove State Park			Total Take 2.52	Beginning Balance 12.96		

Date	Participating Landowner	Location and/or Project Name	CSS Impacts By Project (acres)	Remaining Authorized Take (acres)	Take Accounting Concurrence Between Wildlife Agencies & Landowner	Comment
01/10/20	Metropolitan Water District (MWD)	Orange County Feeder Blow-Off Structure Rehabilitation Project (CM-2)	0.23	45.07		Section 7 Consultation
Metropolitan Water District			Total Take 0.23	Beginning Balance 45.3		

5.2 Take by Non-Participating and Participating Landowners – In-Lieu and Other Mitigation Fee Options

The US Fish and Wildlife Service, and the California Department of Fish and Wildlife neither received nor approved any Non-Participating Landowner projects to utilize the In-Lieu Mitigation Fee Option in 2023.

6.0 ACCOUNTING OF FUNDS RECEIVED AND DISPERSED BY NCC

NCC entered into a three-year \$5,000 contract with Laguna Canyon Foundation in February 2023 focused on surveying, monitoring and management of St. John’s Wort in Laguna Canyon outside of the reserve. The funds were a match to funding provided by the City of Laguna Beach. NCC saw the collaborative opportunity to stop the spread of this invasive plant into the reserve.

No other funds were directly dispersed to NCCP/HCP participants in 2023. However, NCC provided in-kind contributions, and science and land management services through its contracts benefiting landowners in the areas of annual invasive plant eradication, identified bird, amphibian and reptile species monitoring, and habitat restoration on reserve lands. For a detailed breakdown of expenditures and success of the program in 2023, see Section 2 above.

7.0 BOUNDARY CHANGES/MINOR AMENDMENTS IN THE RESERVE SYSTEM

There were neither Boundary Amendment requests considered by the NCC Boundary Amendment and Acquisition Committee nor requests approved by the Natural Communities Coalition Board of Directors in 2023.

8.1 California Department of Fish and Wildlife

Coal Canyon Ecological Reserve



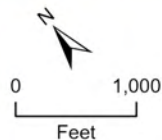
I:\Projects\PK00202064_NCCP HCP Management Units Maps for Annual Report - Danny Fry

DESIGNED AND PRODUCED BY:
 DCFW
 HCP Parks GIS

DATA SOURCE:
 © DCFW, © FWS, © Bortolotto Geographics (Aerial Imagery)

The County of Orange and DCFW/NO Parks/Survey/GIS/ESD make no representations or warranties regarding the registration or accuracy of the data shown within this map user interface. Further, the County, nor DCFW/NO Parks/Survey/GIS/ESD shall be liable under any circumstances for any errors, omissions, specific, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



California Department of Fish and Wildlife
 Coal Canyon Ecological Reserve



Land Manager Name

Ca Dept Fish Wildlife

Reporting Year

2023/2024

Park, open space or management unit

Coal Canyon ER

Website

<https://wildlife.ca.gov/Lands/Places-to-Visit/Coal-Canyon-ER>

Land owning entity:

California Department of Fish and Wildlife

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

During 2023, fences and trails were routinely monitored and no major impacts to the habitat were observed beyond what has been documented in previous years. There has been consistent unauthorized and off-trail use by motorized vehicles, notably motor bikes and small trucks. To help minimize unauthorized use, the California Department of Fish and Wildlife (CDFW) plans to replace the gates and install bollards/boulders at the Chino Hills State Park and U.S. Forest Service boundaries in 2024. This project is currently going through the CEQA process. Nonnative annual vegetation within and along the road margins will continue to be surveyed and managed. CDFW is also exploring the possibility of having the Coal Canyon ER access road serve as a modified fuel break, but no work is anticipated for 2024.

So Cal Edison with the Orange County Fire Authority graded the access roads in 2023.

Additionally, two high priority invasive species exist in or adjacent to Coal Canyon ER, *Centaurea solstitialis* (yellow star thistle) and *Brassica tournefortii* (Sahara mustard). Efforts to monitor and control these populations by CDFW and partners will continue to occur in 2023. Additional interagency coordination will be performed to efficiently manage populations across jurisdictional boundaries.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[2023-Waterfowl-Booklet-v3_final-3.pdf](#)

Description of closure conditions and procedures.

According to Title 14, Sections 550 and 630, closures can occur for resource protection and other reasons deemed appropriate by CDFW and with approval from the Regional Manager.

ii. Has the policy been officially modified since the previous year's annual report?

Yes

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[2023-Waterfowl-Booklet-v3_final-4.pdf](#)

Description of special events use for the property.

According to Title 14, section 550, "an activity, use, event or gathering on department land...may be allowed with written authorization from the department, typically in the form of a Special Use Permit. When allowed, special uses occur on a limited basis as defined in the Special Use Permit or other authorizing document. An authorized special use on department land shall not conflict with the normal uses, purposes or management of the department land."

ii. Has the policy been officially modified since the previous year's annual report?

Yes

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Reserve Manager	1	0.07
Habitat Assistant	1	0.1
Scientific Aids	2	0.07
Scientific Aids	1	0.15

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Tim Ford	Wildlife Habitat Asst.	tim.ford@wildlife.ca.gov	949-604-0804

B. Visitation

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

The trail cameras that were originally installed at Coal Canyon ER were stolen or vandalized. As such, we do not have an estimate for 2023.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2022 Not available
 2021 Not Available
 2020 - 2,920
 2019 Not Available
 2018 Not Available

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of park users were observed within the past year, although there is continued evidence that use of unauthorized motor vehicles (i.e. trucks, motorized bikes) has continued to occur. For this reason, CDFW is working on replacing two gates (boundaries with Chino Hills State Park and Cleveland National Forest) and installing bollards/boulders to curtail unauthorized use of the trails in 2024. CDFW has also coordinated with the U.S. Forest Service on fixing or replacing the gate at the boundary with Cleveland National Forst. CDFW staff continue to repair the welded chain on the CDFW-USFS gate as needed.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
NA	No significant impacts to habitat were observed from unauthroized property uses	NA	NA

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Access roads and trails into Coal Canyon ER are routinely monitored by CDFW staff. Maintenance of access roads is performed on an annual or biannual basis by Southern California Edison (SCE). The roads were graded and repaired in 2023.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

No

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

In April 2021, UC Cooperative Extension in collaboration with CDFW and OCFA placed ISHB traps near the entrance of a riparian corridor to determine whether ISHB existed within the area. For much of the year, no ISHB were observed, but in the fall of 2021, two beetles were found on one sticky trap within Coal Canyon ER. The project has since ended.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

While two beetles were found on one sticky trap in fall 2021, no additional invasive beetle occurrences were identified in 2022.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

Staff will continue to monitor and manage high priority species *Brassica tournefortii* (Sahara mustard) and *Centaurea solstitialis* (yellow star thistle) populations in Coal Canyon ER. Since these species are also found on adjacent properties, interagency communication will be conducted to share information and coordinate management.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

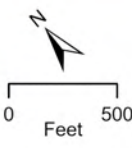
8.1 California Department of Fish and Wildlife

Laguna Laurel Ecological Reserve



WProjects\PK00202064_NCCP HCP Management Units Maps for Annual Report - Danny Fry

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<p>DATE: February 6, 2023</p>	



California Department of Fish and Wildlife
 Laguna Laurel Ecological Reserve



Land Manager Name

Ca Dept Fish Wildlife

Reporting Year

2023/2024

Park, open space or management unit

Laguna Laurel ER

Website

<https://wildlife.ca.gov/Lands/Places-to-Visit/Laguna-Laurel-ER>

Land owning entity:

California Department of Fish and Wildlife

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

During 2023, monitoring of trail conditions, fencing, and signage was routinely performed.

A report of poaching of *Dudleya stolonifera*, a federally listed species, was reported in late December 2022 following a survey of the species. California Department of Fish and Wildlife (CDFW), Orange County Parks, and CNPS conducted a site visit of the poached population. CDFW wardens were also notified and visited the site in January 2023. Two trail cameras were deployed and bi-weekly checks of the population. No poaching activity was observed. Adjacent to the *Dudleya stolonifera* population, a ~2.75-acre enhancement project was initiated in October 2023. Cultural monitoring of the site was also conducted to assess whether cultural resources were present. Biological surveys will also be conducted during the growing and nesting season. Continued planning of the project will consider a plant palette and fencing options that may reduce trespass into the project area and minimize access to the *Dudleya stolonifera* population.

CDFW will continue to work with Orange County Parks to improve monitoring and management of high priority weeds and trail maintenance within Laguna Laurel ER. As the County owns Laguna Coast Wilderness Park, which surrounds Laguna Laurel ER, CDFW will coordinate closely with the County for weed management, trail monitoring, and obtaining visitor estimates in the future. Signage, trail conditions and fencing will also be regularly surveyed and maintained as necessary.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[2023-Waterfowl-Booklet-v3_final.pdf](#)

Description of closure conditions and procedures.

According to Title 14, Sections 550 and 630, closures can occur for resource protection and other reasons deemed appropriate by CDFW and with approval from the Regional Manager.

ii. Has the policy been officially modified since the previous year's annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[2023-Waterfowl-Booklet-v3_final-2.pdf](#)

Description of special events use for the property.

According to Title 14, section 550, "an activity, use, event or gathering on department land...may be allowed with written authorization from the department, typically in the form of a Special Use Permit. When allowed, special uses occur on a limited basis as defined in the Special Use Permit or other authorizing document. An authorized special use on department land shall not conflict with the normal uses, purposes or management of the department land."

ii. Has the policy been officially modified since the previous year's annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Reserve Manager	1	0.07
Habitat Assistant	1	0.1
Scientific Aids	2	0.07
Scientific Aid	1	0.15

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Tim Ford	Wildlife Habitat Asst.	tim.ford@wildlife.ca.gov	949-604-0804

B. Visitation

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

While the public did visit Laguna Laurel ER, CDFW still does not currently have a method in place for estimating public visitation at Laguna Laurel ER. Estimates provided by Orange County Parks are for all of Laguna Coast Wilderness and would be an inaccurate overestimate for Laguna Laurel ER.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2022 Not Available
2021 Not Available
2020 Not Available
2019 Not Available
2018 Not Available

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of park users or uses were observed in the park during 2023.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
NA	NA	NA	NA

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trails are routinely monitored by CDFW staff. Only major incidents of degradation are documented and there was no evidence of trail degradation observed in Laguna Laurel ER during 2023.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Laguna Laurel Enhancement for Wildfire Resiliency

Mitigation

No

Other Restoration Community Acres

2.75

Other Restoration Community Type

transitional habitat that will include mosaic of oak woodland, CSS, chaparral, and native forbland. The plant palette is still being determined.

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2023-08-01

Anticipated End Date

2025-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

Due to minimal CDFW staff capacity and resources during 2023, follow-up surveys for invasive beetles were not conducted. From previous surveys, only two trees were found to be infected with polyphagous shot hole borer near the boundary with Orange County Parks property. CDFW will work with partners to better strategize monitor infested trees in 2024.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
California Sycamore	Invasive Shot Hole Borer	within ~1 acre	3

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

In July 2020, surveys were conducted in Laguna Coast Wilderness by UC Cooperative Extension for OC Parks. Based on the map provided by OC Parks, Laguna Laurel ER was also surveyed and a small cluster of 2-3 trees with low infestation level were observed near the southern boundary. Based on the map and some details, the species are likely to be California Sycamore (Platanus racemosa). The report provided by OC Parks likely covers survey results within Laguna Laurel ER as well.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

Yes

If yes, please fill out the following

Project Name	Habitat Type	Approximate Location	Area (acres)
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Laguna Laurel Enhancement for Wildfire Resiliency	currently exotic grasses and forbs	33°35'5.33"N, 117°45'48.07"W	2.75
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Additional Information:

The Laguna Laurel Enhancement for Wildfire Resiliency Project is a relatively small 2.75-acre project located in the middle of Laguna Laurel ER where there is an existing patch of nonnative grasses and forbs. On the periphery of the project area are various transitional habitats including oak woodland, some chapparal and coastal sage scrub. There are also rocky outcroppings that harbor *Dudleya stolonifera*, a federally-listed plant. This project has undergone CEQA and has received a Categorical Exemption and the contract with Laguna Canyon Foundation to implement the work was executed in April 2023. We worked with CalTrans and OC Parks to procure encroachment permits for access to the project site. We continue to collaborate with Orange County Parks on other aspects of the project including plant palette, protection of the *Dudleya stolonifera* population, and archaeological and paleontological surveys. We are also working the tribal authorities on the project to conduct additional tribal consultations and determine whether tribal monitoring is required during plant installation. An initial site visit with one of the tribes was held on August 30th, 2023. Mowing and thatch removal occurred between October 30, 2023 and November 7, 2023. Archaeological and paleontological surveys were conducted after mowing on November 14, 2023. Herbicide application of non-native species occurred between December 11, 2023 and December 15, 2023. A formal tribal consultation will occur in January 2024 with an OC Parks archaeologist on site, which will determine whether ground disturbance may impact cultural resources.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

In addition to the previously described projects, CDFW will monitor high priority weeds in collaboration with Orange County Parks and manage as necessary. No Priority 1 weeds have been previously documented in Laguna Laurel ER thus far, but Priority 2 species include artichoke thistle (*Cynara cardunculus*), perennial veldt grass (*Ehrharta calycina*), *Arundo donax* and black locust (*Robinia pseudoacacia*). Sahara mustard (*Brassica tournefortii*) has not been documented in Laguna Laurel ER, but populations exist nearby within Laguna Coast Wilderness Park.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Staff will work with partners including Orange County Parks, Orange County Fire Authority, and NCC on how to best survey and treat, if needed, trees infested with invasive beetles.

Other invasive species (please describe):

If other high priority invasive species are identified, CDFW will also work with neighboring land owners and partners to develop a survey and treatment strategy.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

The Laguna Laurel Trail Fuel Reduction is in the early phases of planning as we are still working on the CEQA process for the project. The project includes maintenance of the ~0.74 mile trail that runs through Laguna Laurel ER, including mowing of nonnative species, trimming shrubs back, limbing up trees, and removing dead plant material along the trail. Small patches of nonnative annual vegetation along the trail will also be treated. The project also includes mowing of a ~5.1-acre nonnative grassland area opposite the creek to the Laguna Laurel Enhancement project; the posts and barbed wire of a remnant fence will also be removed. We anticipate that it will also receive a Categorical Exemption. The same biological, archaeological/paleontological, and cultural surveys will need to be performed for this project as with the Laguna Laurel Enhancement. This project will be carried out by CDFW staff and the hope is that implementation will commence in fall 2024.

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.1 California Department of Fish and Wildlife

Upper Newport Bay Ecological Reserve

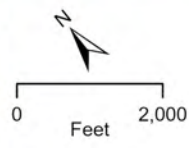


DESIGNED AND PRODUCED BY:
 DUCK
 W. Parks GIS

DATA SOURCE:
 OC Parks, OCPI, Barrister Geographics (Aerial Imagery)

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DATE: February 6, 2023



**California Department
of Fish and Wildlife**
 Upper Newport Bay
 Ecological Reserve



Land Manager Name

Ca Dept Fish Wildlife

Reporting Year

2023/2024

Park, open space or management unit

Upper Newport Bay ER

Website

<https://wildlife.ca.gov/Lands/Places-to-Visit/Upper-Newport-Bay-ER>

Land owning entity:

California Department of Fish and Wildlife

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

During 2023, several efforts were made to manage and survey multiple invasive species including high priority weeds *Limonium ramosissimum* (Algerian sea lavender), European sea lavender (*Limonium duriusculum*), and Sahara mustard (*Brassica tournefortii*). California Department of Fish and Wildlife (CDFW) staff have also been involved with monitoring for *Volutaria tubuliflora* and attend biweekly meetings during the growing season; staff assist with treating as needed. Additionally, monitoring efforts occurred to assess populations of three state and federally listed species, the Ridgway's rail, California Least tern, and salt marsh bird's beak.

There are also multiple ongoing restoration projects in various stages. Planning and permitting for the Big Canyon Habitat Restoration and Adaptation-Phase 3 (previously 2B/2C) began in early 2021 and is still ongoing; all permit applications have been submitted and the design is near 90%. Implementation is anticipated to start in fall 2024 depending on permit issuance and funding. CDFW has also been included in discussions with the County of Orange Public Works on the Santa Ana-Delhi Channel Improvement Project; planning and permitting for the project continued in 2023 and is ongoing.

Vegetation monitoring and multiple targeted invasive control efforts occurred in 2023. One small invasive plant removal projects took place, including removal of a few Brazilian peppertrees (*Schinus terebinthifolia*), which were a site of illegal activities and pose a threat to neighboring homeowners. Removal of several small patches of *Arundo donax* is anticipated to occur in 2024. While no new restoration projects are currently planned for implementation over the next year, CDFW continues to be involved in the Big Canyon Habitat Restoration and Adaptation Project-Phase 2, which was completed in early 2021 and is currently in its monitoring and maintenance phase; as stated above, planning and permitting of subsequent phase (Phase 3) within Upper Newport Bay ER is ongoing.

CDFW also previously designed several interpretive panels, some in collaboration with the Newport Bay Conservancy and the Orange County MPA Collaborative, for installation at Big Canyon and at other locations throughout the Reserve. These interpretive panels were installed at their respective locations in Big Canyon and around the Back Bay Science Center in 2023. In 2024, the Big Canyon kiosk will be refurbished and the new interpretive panels will be installed.

There has been an increase in unauthorized use of certain illegal trails, drones, and e-bikes. A trail camera was

installed at Big Canyon and was monitored biweekly during 2023. A separate camera was also installed near the Bayview trail after receiving reports of poaching, but the camera was stolen within two weeks of deployment. CDFW staff has designed signage to help address some of these issues (e.g. no drone, do not feed wildlife) that were installed in 2023. In December 2022, a split-rail fence was installed along the bluff just below Constellation Road (adjacent to OC Parks property) which has led to major reductions in the use of the unauthorized trails in that area in 2023.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

Both Open and Hosted Limited Access

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[2023-Waterfowl-Booklet-v3_final-5.pdf](#)

Description of closure conditions and procedures.

According to Title 14, under Sections 550 and 630, closures can occur for resource protection and other reasons deemed appropriate by CDFW and with approval from the Regional Manager.

ii. Has the policy been officially modified since the previous year's annual report?

Yes

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[2023-Waterfowl-Booklet-v3_final-6.pdf](#)

Description of special events use for the property.

According to Title 14, under section 550, "an activity, use, event or gathering on department land...may be allowed with written authorization from the department, typically in the form of a Special Use Permit. When allowed, special uses occur on a limited basis as defined in the Special Use Permit or other authorizing document. An authorized special use on department land shall not conflict with the normal uses, purposes or management of the department land."

ii. Has the policy been officially modified since the previous year's annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Reserve Manager	1	0.8
Habitat Assistant	1	0.5
Scientific Aids	2	0.8
Scientific Aid	1	0.5

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Tim Ford	Wildlife Habitat Asst.	tim.ford@wildlife.ca.gov	949-604-0804

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

8813

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

CDFW hosts several educational programs and collaborates with multiple partners including the County of Orange and the Newport Bay Conservancy at the Back Bay Science Center and elsewhere around Upper Newport Bay ER. The above estimate is determined by combining the total number of individuals participating in each program or event hosted by both CDFW as well as by other partners conducting programs within the Reserve. While, some programs gradually opened up, due to COVID-19 these numbers continued to be lower in 2023 compared to previous years.

The above number also likely underestimates the number of individuals that visited the Upper Newport Bay ER during 2022 as we do not currently have a consistent, accurate method of calculating all the visitors who use trails or participate in water activities. While educational and outreach programs were cancelled, observations by CDFW staff and other partners indicate that there continued to be an increase in public activities on water and trails during 2022, especially during the summer months.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2022 - 8,813 visitors
 2021- 1,296 visitors
 2020-3,505 visitors
 2019-17,448 visitors
 2018- 10,553 visitors

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

An increase in drone use and e-bikes was observed. Signs that were designed and ordered were installed in 2023. Additionally, more individuals were observed feeding wildlife for which signs were also installed in 2023.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
11/5/2023	Newport Dune Triathlon	1000

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
NA	No significant impacts to habitat were observed from unauthorized property uses	NA	NA

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Staff are routinely walk each trail to assess trail, fence, and sign conditions and to determine whether maintenance is required. Trail surveys are conducted on a weekly basis and only major maintenance issues are documented. There were two unauthorized trails that were continually getting worse on the east side of the Reserve on the bluff just south of the public trails within the OC Parks Upper Newport Bay Nature Preserve. To reduce usage of these illegal trails, a split rail fence was installed in December 2022 and coordinated collaboratively with OC Parks. The fence line and trails were monitored and showed signs of significant reductions in use of the two unauthorized trails. A potential habitat enhancement to reinforce closure of illegal trails at this location is being explored with the Newport Bay Conservancy. Other minor issues with trail conditions, fencing, and signage were routinely addressed during 2023 in Upper Newport Bay ER.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Partially

i. If no or partially, please complete the table below:

Treatment Methodology	Invasive Plant Name	Habitat(s) Impacted	Area of Treatment (Square Meters)
Synthetic Herbicide	Melilotus alba (white sweetclover)	dune-sandy nesting island	4,856 (gross area)
Synthetic Herbicide	Erodium cicutarium	dune-sandy nesting island	1,214 (gross area)
Hand-pulling	Invasive Limonium (ramossisimum and duriusculum)	saltmarsh	22,946 (gross area)
Other	Invasive Limonium (ramossisimum and duriusculum)	saltmarsh	1,394 (gross area)

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

Due to limitations in staff capacity, no surveys were conducted for invasive beetles. However, surveys will be conducted in Big Canyon prior to implementation of the Phase 3 of the restoration project to ensure any infested plant material is kept on site and treated appropriately.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Platanus racemosa	ISHB	Big Canyon Nature Park	5
Salix lasiolepis	ISHB	Big Canyon Nature Park	NA

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

One informal survey was conducted by the Newport Bay Conservancy in September 2019 within the Reserve boundary. However, due to limitations in resources and personnel during 2023, follow up in Big Canyon and new additional surveys did not take place. As part of the Big Canyon Habitat Restoration - Phase 3 project, surveys and management of invasive beetles in will be done in coordination with the Newport Bay Conservancy, City of Newport Beach, County of Orange, the Natural Communities Coalition and the Emerging Tree Pest Task Force.

While treatment did not occur within the Upper Newport Bay ER boundary, all trees that were infested with ISHB were treated or removed within the upstream Phase 2 area of the Big Canyon Habitat Restoration and Adaptation project.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

The following ongoing research projects are taking place in the Upper Newport Bay ER:

-Since about 2010, the eelgrass and oyster restoration project has been ongoing and led by Orange County Coastkeeper, Cal State Fullerton, and Cal State Long Beach. This project continues to explore methods for successful oyster bed and eelgrass restoration through experimental plots established in Upper Newport Bay ER. OC Coastkeeper assesses eelgrass densities, area and growth, water quality, shoreline elevation, oyster bed subsidence and wave attenuation. Data collected by CSUF includes measures of oyster settlement, recruitment, densities, percent shell cover, adult sizes, sedimentation, and bird use of the habitat. Work performed by CSULB includes assessments of infaunal and fish communities and analyses of oyster tissue and sediment for contamination. In 2023, CSULB continued to perform a survey of their sites via UAV (unmanned aerial vehicle) to assess whether oyster and eelgrass restoration is contributing to shoreline stabilization. The same team conducting these surveys is also part of the program developing standard methods for assessing Marine Protected Areas in California and Upper Newport Bay ER is a pilot site.

-Call counts of Ridgway's rails are conducted annually to assess population dynamics. Monitoring is provided under a Memorandum of Understanding (MOU) with Dick Zembal. The MOU allows for annual nest searches and egg collection to the breeding program at Sea World. Surveys were conducted during the start of the breeding season. The survey data is provided as part of a final annual report submitted to CDFW. In 2023, only 36 pairs were identified, an 18% decline from 2022, which had 44 pairs counted. The Ridgway's Rail population at UNBER has drastically been declining since 2018, likely due to habitat loss; cordgrass cover decreased dramatically during 2016 and minimal recovery has been observed. Additionally, we began working with a master's student from CSU Long Beach on assessing Ridgway's rail use of platforms for nesting and refuge; cameras are deployed and monitored and she has been collecting data on vegetation and abiotic characteristics of her field sites.

-Surveys of Belding's savannah sparrow were conducted in 2020 and no formal surveys were conducted in 2023. Territories are concentrated in dense pickleweed (*Salicornia* sp.) in the mid marsh, often on elevated hummocks likely to avoid frequent tidal inundation. However, this makes the population more vulnerable to human and pet trespass, mammalian predators, stands of Algerian sea lavender (*Limonium ramosissimum*), and competition with song sparrows in adjacent habitats. Management efforts for 2023 will continue to focus on controlling Algerian sea lavender and reducing human trespass.

-The California Least tern population at Upper Newport Bay ER was monitored during the 2023 nesting season. As in previous years, two scarecrows were placed on the island to alleviate harassment by black skimmers; the presence of the scarecrows creates a zone with little Black Skimmer activity, providing additional space for nesting CA Least terns. Even though black skimmers have been documented to harass and compete with CA Least terns, they may also provide some level of protection from corvids and other predators when they are present and actively nesting. Sentinels were also deployed in 2023 to deter coyotes from crossing the channel to the island. To avoid the possibility of visible markers drawing in crows and causing depredation, nests were documented by GPS only. During 2023, four nests were counted, yielding between 3 and 5 fledglings. As in previous years, scarecrows will be deployed in April before CA Least terns arrive on-site in 2023. Additional predator control efforts to try to reduce

depredation and harassment by crows will be conducted, included sentinels to deter coyotes and crow effigies. CDFW is also exploring the possibility of trapping crows as another form of predator control. As in previous years, the majority of monitoring will be performed remotely from the adjacent bluff to minimize impact, but on-site nest surveys will be done weekly to verify nest locations and maintain trail cameras using the least time-intensive approach. The California Least tern population at Upper Newport Bay ER will continue to be monitored during the 2024 nesting season. As in 2023, scarecrows and sentinels will be deployed in April before CA Least terns arrive on-site in 2024.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

Yes

If yes, please fill out the following

Project Name	Habitat Type	Approximate Location	Area (acres)
Big Canyon Habitat Restoration and Adaptatio Project - Phase 3	freshwater marsh (pond), riparian, transitional upland/CSS	33°37'55.78"N, 117°53'1.64"W	~16

Additional Information:

The project will restore and enhance approximately 16 acres of degraded habitat that have impacted by past placement of dredged material, nonnative plants and selenium impacted dry weather flows. Restoration of historical saltmarsh, alkali meadow habitat, a continuous riparian corridor, and upland transitional following removal of invasive and nonnative plants will take place. To support restored marsh areas, tidal flow and extent will be expanded. To address the selenium issue, realignment of the riparian corridor and expansion of tidal flows will promote continuous flow to eliminate ponding of dry weather flows. Promotion of continuous flow will also help to alleviate vector control issues, as the current pond provides mosquito breeding habitat and is considered a Significant Vector Source by the Orange County Mosquito and Vector Control District. The project also takes into account forecasted sea level rise and the design integrates an adaptive approach to best ensure the project area is resilient to future environmental conditions. Invasive shot hole borer is also within the project footprint; surveys will be conducted and infested plan material will be chipped and treated on-site.

While the project is still in the planning (90%) and permitting phase (permit applications submitted December 2022 and January 2023), it is anticipated that implemenation will start in fall 2024 depending on permit issuance and

funding.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

Key high priority species at Upper Newport Bay ER include *Paspalum vaginatum* (NCC Priority 1), invasive *Limonium* (NCC priority 2), *Arundo donax* (NCC Priority 2), and *Brassica tournefortii* (NCC priority 2) all of which will be surveyed and treated to the best of CDFW's capacity and in collaboration with the Newport Bay Conservancy (NBC) and other partners. While only a few plants of *Volutaria tubuliflora* (Egyptian knapweed; NCC priority 1) and *Lepidium latifolium* (perennial pepperweed; NCC priority 1) have been observed on CDFW property within the past several years, CDFW staff with NBC will continue to monitor high risk locations within the Reserve.

Other high priority species that the CDFW would like to treat, as feasible, include various iceplant species due to their presence in highly sensitive riparian, saltmarsh, and dune habitats.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

CDFW will work with local partners including the Newport Bay Conservancy, City of Newport Beach, County of Orange, the Natural Communities Coalition and the Emergent Tree Pest Task Force to coordinate monitoring and treatment of invasive beetles in UNBER. Additional surveys will take place in the remainder of Big Canyon and efforts will be taken to conduct surveys at other high risk locations throughout Upper Newport Bay ER.

Other invasive species (please describe):

Other high priority species that have been reported within or directly adjacent to the Upper Newport Bay ER include *Dittrichia graveolens* (stinkwort; NCC priority 1), *Oncosiphon pilulifer* (stinknet; NCC priority 1), *Iris Pseudacorus* (pale yellow iris; NCC priority 1), spiny softshell turtle, and *Caulerpa prolifera*. These species and any others that are reported will be managed collaboratively with partners.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

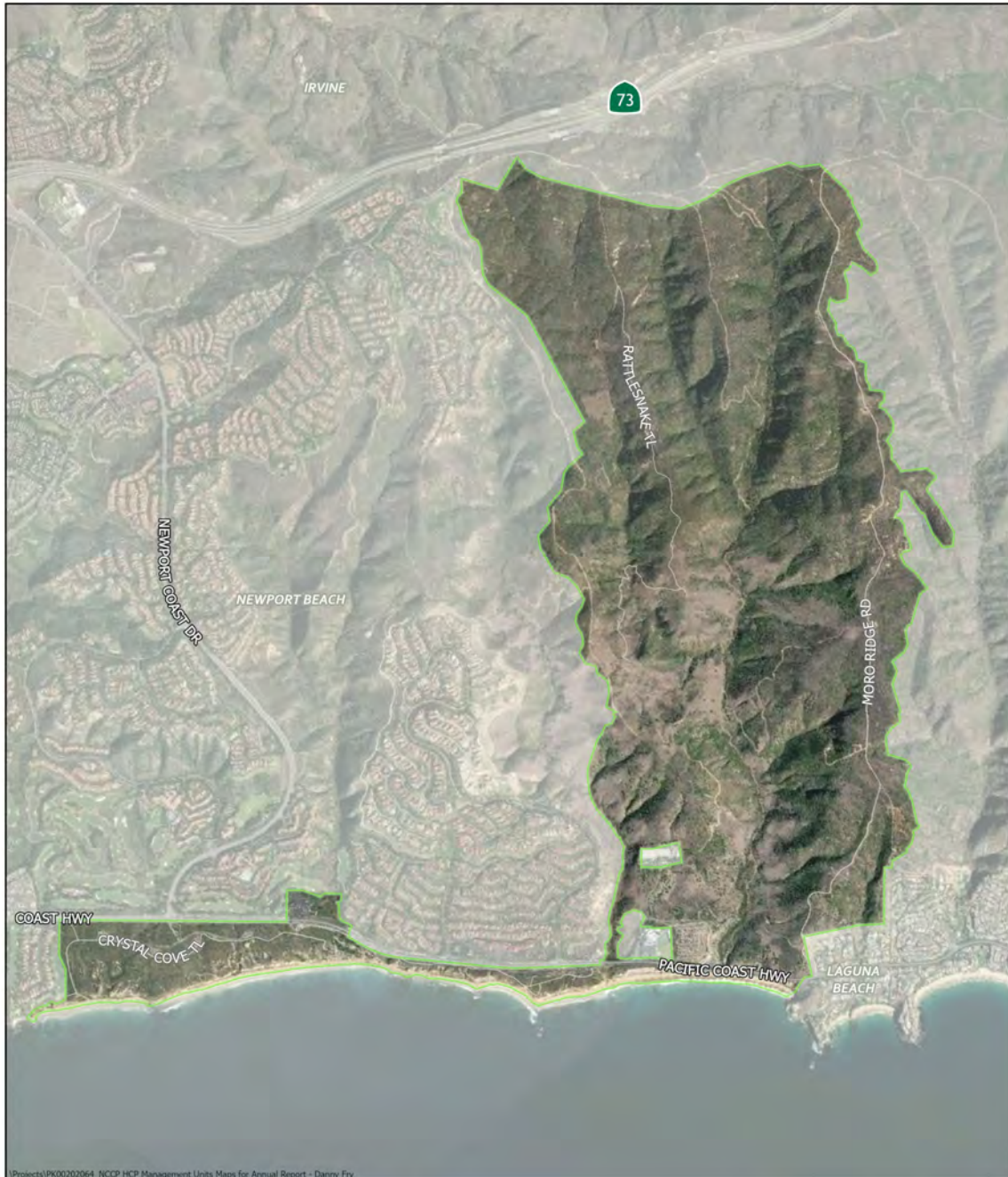
No

Maintenance of existing fuel management to be undertaken within the reserve?

No

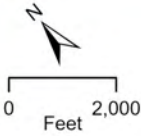
8.2 California Department of Parks & Recreation

Crystal Cove State Park



U:\Projects\PK00020264_NCCP_HCP_Management_Units_Maps_for_Annual_Report - Danny Fry

DESIGNED AND PRODUCED BY: DCCR DC Parks GIS
DATA SOURCE: DC Parks, OPR, Earthstar Geographics (Aerial Imagery)
<small>The County of Orange and DCCR/DC Parks/Surveys/GIS/ES make no representations or warranties regarding the registration or accuracy of the data from which this map was derived. Further the County, DC Parks, DC Parks/Surveys/GIS/ES shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.</small>
DATE: February 6, 2023



California Department
of Parks and Recreation
Crystal Cove
State Park



Land Manager Name

Ca Dept Parks Rec

Reporting Year

2023/2024

Park, open space or management unit

Crystal Cove SP

Website

<http://www.crystalcovestatepark.org>

Land owning entity:

California Department of Parks and Recreation (State Parks)

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

Crystal Cove State Park (CCSP) continued to be managed in a manner consistent with the habitat protection values of the OC NCCP/HCP, the Park's general plan, the Parks Draft (working) Natural Resource Management Plan, and the broader mission of State Parks. We continue to experience high visitation at CCSP, both in the backcountry and on our beaches, although our estimate decreased from the previous two years. Heavy winter rainfall in 2023 led to the erasure of a number of unauthorized "social" trails in the Park (through a combination of robust vegetation growth and near zero visitation with extended backcountry closures). None the less, unauthorized "social" trails persist in the park because a small number of mountain bikers continue to use them regularly.

Heavy rainfall from late December 2022 through April 2023 damaged several sections of road and trails. Repairs were completed by State Park heavy equipment operators in May of 2023 under the supervision of District natural and cultural resource staff. This maintenance work was covered by the CCSP general plan.

Large surf and high-tides in early January 2023 eroded beaches throughout Crystal Cove SP. State Parks carried out an emergency sand nourishment project at Moro Beach to protect the Lifeguard Headquarters building and the road to it from PCH. Approximately 15,000 cubic yards of sand was placed in front of the road and Lifeguard HQ building. As of December 2023, approximately half the sand remains. However, it is likely much of this "lost" sand has moved into shallow waters near shore and will accrete back on the beach during summer 2024.

In February of 2022, the 155-acre Emerald Fire burned approximately 80 acres of CSS and native grasslands along the coastal portion of Moro ridge. Native vegetation is recovering well with the aid of periodic spot weed control. Unfortunately, a new infestation of Sahara mustard was found on the contingent dozer line in early 2023. It is likely the weed hitch hiked on (dirty) heavy equipment as part of the initial incident response. State Parks natural resource staff, in partnership with OC Parks staff and volunteers, treated all detectable Sahara mustard in the winter and spring of 2023.

Fuel management practices and public access policies for the park were unchanged in 2023. State Parks continued to survey and treat invasive plants at a regional scale, including implementation of an EDRR program (in partnership with NCC).

Orange Coast District continued with site-prep on all three stages of “Bowl” Phase II habitat restoration project. When completed, the project will restore an additional 14 acres of CSS and 1 acre of native grassland over the next 4 years. It is funded by the Department’s Wildfire Resiliency Program.

Land IQ, with funding from NCC and the Wildlife Conservation Board (WCB), continued their habitat restoration project for western spadefoot toad on moro ridge. Progress also continued on the 7.5-acre CSS and grassland habitat restoration project lead by Irvine Ranch Conservancy in the lower moro area. Lastly, we expect completion of the Natural Resources Management Plan (NRMP) for Crystal Cove SP in 2024.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[Orange-Coast-Posted-Orders-2023-1-1.pdf](#)

Description of closure conditions and procedures.

The 2023 District Superintendent Posted Orders are attached. Posted Orders go through revisions, additions, and subtraction on an annual basis. No changes were made to property closure conditions or procedures in 2023. The Trail Use posted order (925-23-14) was updated in 2021 to reflect restrictions on e-bike use in Crystal Cove State Park.

Park closure data for 2023 under section C, i.

Relevant posted orders include:

925-23-01 Public Health and Safety Closure (p. 3)

925-23-03 Day use areas - Hours of Closure (p. 5)

925-23-14 Trail Usage (pg. 26)

925-23-23 Resource Protection - Closed Areas (pg. 44)

925-23-29 Temporary Rain Closures (p. 53)

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[CCSP-Closures-table-2023-1.xlsx](#)

Description of special events use for the property.

Crystal Cove State Park provides opportunities for the public to permit special events that include but, are not

limited to, private and commercial use events. Common examples of private events include weddings, parties, tours, and sporting events. Commercial uses include semi-regular activities such as wellness/fitness training, sporting competitions, nature tours, outdoor skills classes and recreational hikes/walks. CCSP also permits special events to support our Concession/Co-Op partner for fundraising events, education programming and open to the public interpretive events, such as art shows, walking tours and other recreational activities. The Special Event Application and policies is available for viewing/download at: http://www.crystalcovestatepark.org/special_events

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
District Superintendent	1	1
Environmental Scientist	4	3
Environmental Science Intern	6	4
Special Event coordinator	2	1.5
Interpreter	4	3.5
Facilities Maintenance Manager/Supervisor	4	4
Maintenance Park Aide	20	15
Park Aide (seasonal)	48	25
Peace Officer Ranger/Lifeguard	9	9
Lifeguard (seasonal)	61	22

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Kevin Pearsall	District Superintendent	kevin.pearsall@parks.ca.gov	(714) 377-2456

B. Visitation

a. Total number of public visitors to the property based on land owner’s estimate:

1605683

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

The day use estimate incorporates paid day user and campers. Admission based on the use of annual passes is incorporated into this estimate. Additionally, we maintain 9 trail counters in the Crystal Cove backcountry to estimate backcountry use, and counts are calibrated to each specific counter location. However, only counts from our trail counters near Ridge Park and Irvine Cove entrance gates, and on the eastern border with Laguna Coast

Wilderness (Moro Ridge), were included in the annual estimate to minimize double counting with visitors entering paid State Park parking lots or via Laguna Coast Wilderness south.

1.6M visitors is likely an underestimate of the true number because it doesn't include visitors in the historic district or on the coastal bluff trail that enter on foot or by shuttle buses/public transportation from nearby hotels and the City of Laguna Beach.

In 2024, State Parks will be utilizing a new, cell phone data based system to estimate attendance at CCSP. The data and analytics will be similar to what NCC used in it's recent recreation management studies led by Chris Monz at Utah State.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

For comparison, the estimated number of total visitors in 2022 was 1,868,835 and 3,276,731 in 2021. Thus, there has been a slight downward trend in visitation over the last 3 years. But visitation is still high; Orange Coast District of State Parks is the most visited District in the California State Park system.

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

E-bike users and to a lesser extent, drone users. The District has posted orders concerning both activities.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
01/22/2023	Tinkergarten (walk)	300
02/22/2023	Warrior Week	200
03/03/2023	La Vida Laguna (hike)	45
03/25/2023	Expert Active Hike	40
03/29/2023	La Vida Laguna (hike)	20
04/05/2023	CP-Carrillo hike	85
04/08/2023	Rock It Racing (bike race)	350
05/03/2023	Expert Active Hike	15
05/09/2023	La Vida Laguna (hike)	15
05/11/2023	La Vida Laguna (hike)	20
06/21/2023	CCSLA (Aquathlon)	60
06/30/2023	Expert Active Hike	35
07/23/2023	UCI Day Center Camp	40
07/31/2023	HB City JG's	100

08/11/2023	City of Santa Ana	50
09/11/2023	Earthroots Field School	20
09/17/2023	Five Points- PCT	800
09/23/2023	CSULB- Assoc Students	20
09/27/2023	Expert Active Hike	18
10/03/2023	Pacifica Christian HS	150
10/07/2023	Spectrum Sports	50
10/11/2023	CAVIAR- Beach Ball Film	80
10/24/2023	Expert Active Hike	25
10/27/2023	LBUSD-Boo Blast	500
10/29/2023	La Vida Laguna (hike)	15
11/07/2023	Expert Active Hike	30
12/02/2023	CCC Tree lighting	1000
12/16/2023	SoCal Trail Run	300
12/31/2023	Pearl Laguna	300

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
Ongoing	Continued use and creation of existing unauthorized trails	CSS	2

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Park rangers, lifeguard, and natural resource staff visually inspect trail conditions throughout the year during normal park operations. Following large rain events, supervising park ranger(s) or lifeguard(s) assess conditions once roads and trails are dry enough to drive and report back to staff about needed road closures, and where significant damage has occurred. Typically, at the conclusion of each rain season (May-June), park staff work with State Park heavy equipment operators or OCFA operators to repair damaged utility roads. Non-utility roads and trails are repaired by State Park maintenance and natural resource staff using heavy equipment and/or hand tools, as appropriate. Trail assistant volunteers and natural resource staff also assist with maintenance of single-track trails in the park.

While heavily used, authorized trails in the Park fared well for most of 2023. Heavy winter rainfall in 2023 caused

some road and trail damage in locations prone to winter erosion. The double-track trail down to Deer Canyon campground continued to require regular maintenance and repair due to the steep grades. The BFI trail (a single-track connection between Moro Ridge and Moro Canyon trails) was closed on 12/28/22 after heavy rain caused severe erosion and public safety concerns. A small trail reroute was performed in May of 2023 (described more below).

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Moro Beach Emergency Sand Nourishment Project

Start Date

2024-03-01

End Date

2023-03-22

Was facility identified in an applicable GDP or RMP?

No

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Sandy Beach	0.61

Coordination with NCC?

No

Nature of Impact: Temporary (# of Acres)

0.61

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

Approximately 14,974 cubic yards of beach sand (dredged from the mouth of Talbert Channel by OC Public Works) was transported to and placed on Moro beach to protect severely eroded public serving facilities in danger of being damaged by future large wave events. Facilities protected by this action included the lifeguard headquarters building, two public restrooms, and the access road to these facilities. This emergency sand nourishment project was permitted by the California Coastal Commission (emergency waiver) and ACOE (RGP63 permit).

Documentation: Reports, Notes, Photographs (Provide Reference)

- [G-5-23-0003-W-California-State-Parks-Emergency-Waiver.pdf](#)
- [6rgp63_NOC_MoroBeach_Signed.pdf](#)

Facility & Location

BFI Trail Reroute

Start Date

2023-05-01

End Date

2023-05-04

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
CSS	0.009

Coordination with NCC?

Yes

Nature of Impact: Temporary (# of Acres)

0.009

Restoration Actions Taken?

Yes

Please describe the actions taken or justify why no such actions were taken

A 50 ft section of the BFI single track was washed out in January 2023 from heavy rainstorms. Maintaining the existing alignment was infeasible and would have created a public safety hazard. In response, State Parks rerouted the trail in early May following consultation with USFWS, NCC, and CEQA review (see attached). The new 125 ft section of trail was created by Park natural resource staff and experienced trail steward volunteers using string trimmers (initial mowing) and hand tools. Less than 0.01 acres of CSS was removed and the old alignment is being restored through a combination of trail decompaction and reseeding. Symbolic fencing was also installed to keep the public out the restoration area. As of early 2024, native plants are repopulating the old alignment. A progress update will be included in the 2024 annual report.

Documentation: Reports, Notes, Photographs (Provide Reference)

- [Will-Miller-USFWS-Response-to-Emergency-BFI-Trail-Reroute-in-CCSP-2023.pdf](#)
- [NOE-ER-13128-BFI-Reroute-.pdf](#)

Facility & Location

Moro Canyon Road Repair

Start Date

2023-05-08

End Date

2023-05-12

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Annual grassland	0.02

Coordination with NCC?

No

Nature of Impact: Temporary (# of Acres)

0.02

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

Heavy winter rainfall in 2023 realigned portions of lower moro creek and impacted an approximately 60 foot section of Moro Canyon road that was built next to the creek. To restore public and emergency vehicle access, the roadway was realigned approximately 10 ft up slope away from the creek. The reroute cut into disturbed grassland dominated by black mustard. The old roadway is now part of moro creek. State Parks is considering a more substantial reroute for Moro Canyon road that moves it farther up slope and away from the creek. The existing road could then either be turned into a single track trail or decommissioned. After further internal discussion, State Parks will share its vision and recommendations with NCC and other agency partners.

Documentation: Reports, Notes, Photographs (Provide Reference)

- [Winter-2023-Road-and-trail-damage-CCSP.pdf](#)

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

NCC

Mitigation

No

Cactus Scrub Community Acres

10.48

Other Restoration Community Acres

0.22

Other Restoration Community Type

Seasonal ponds (for spadefoot toad)

If this is a formal restoration plan, please provide the name:

Habitat Restoration and Monitoring Plan for Crystal Cove State Park Upland Habitat Restoration & Seasonal Pool Creation—Western Spadefoot (*Spea hammondi*)

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2019-11-04

Anticipated End Date

2025-09-01

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Danny Fry, NCC

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Phase II Bowl Habitat Restoration in Moro Canyon

Mitigation

No

CSS Community Acres

14

Grassland Community Acres

1

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-03-15

Anticipated End Date

2026-05-01

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Lana Nguyen, State Parks

If this is a formal restoration plan, please provide the name:

The Bowl Phase II Restoration Plan for Crystal Cove State Park

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

6.5

Grassland Community Acres

1

If this is a formal restoration plan, please provide the name:

Habitat Mitigation and Monitoring Plan, BFI Restoration Site, Crystal Cove State Park

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2020-04-01

Anticipated End Date

2029-05-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin, IRC

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

State Parks initiated regular/annual surveys for ISHB in Crystal Cove beginning in 2017-2018. Detection efforts in 2023 included the use of ISHB sticky traps and lures in moro canyon, deer canyon, and the coastal terrace (Pelican Point area). Traps are collected and replaced every 4-6 weeks by SP staff, and "spent" traps are collected by UC extension for processing and beetle identification. A map of sticky trap locations within Crystal Cove SP is available upon request (there is no attachment option here).

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Willows (arroyo and black)	ISHB	lower moro canyon	45 (in 2021)
Arroyo willow	ISHB	Pelican lot 4 area	4 (in 2021)

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

In February of 2021, State Parks partnered with OCFA to remove a total of 45 willow trees in lower moro canyon that were heavily infested with ISHB. The objective was to remove the most heavily infected trees in an effort to slow ISHB spread further up the canyon and to surrounding areas (e.g. HOAs, LCW, etc.). Please see 2021 report for additional details and rationale.

No comprehensive assessment for infected trees nor tree removal occurred in 2023.

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[ISHB-tree-removal-info-sheet-2.16.21.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

Yes

Fuel Management Map

[Fuel-Management-Area-Map-CCSP-2023.pdf](#)

Project Number Referenced on the Map

01

Coordination with NCC (i.e., discussion and/or plan review)

No

Habitat Type(s) in Which Modification Occurred

- Annual grassland
- Disturbed vegetation
- CSS

General Description of Fuel Modification Technique Employed

- Mowing
- Pruning/thinning
- Shrub matrix/remove dead material

Approximate Area Treated in Acres

6.5

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

Maintenance

Project Number Referenced on the Map

02

Coordination with NCC (i.e., discussion and/or plan review)

No

Habitat Type(s) in Which Modification Occurred

- Annual grassland
- Disturbed vegetation
- CSS

General Description of Fuel Modification Technique Employed

- Mowing
- Pruning/thinning
- Shrub matrix/remove dead material

Approximate Area Treated in Acres

2.1

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

Maintenance

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

Yes

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

State Parks frequently receives applications to conduct research at Crystal Cove State Park, particularly from local Universities like UC Irvine. Research applications are reviewed and approved by natural resource staff to ensure field work and/or sample collections have no or only minor impact on natural resources, and advance our understanding of the Park and the natural world broadly. For a complete list of approved research projects at CCSP in 2023, please reach out to the Parks' Sr. Environmental Scientist Riley Pratt.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Picnic facilities
- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Pelican Area (Lot 4) - Amphitheater and Picnic Area Upgrades (33.579061 -117.8456).

Impact Size

0.05

Habitat Type

CSS

Identify any project lead(s) (i.e., utility, government department):

Riley Pratt

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

State Parks will continue with the Bowl Phase II restoration project (15 acre project). No new "active" restoration projects will be initiated in CCSP; however, new restoration projects will be initiated in other park units outside of the NCCP area.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

State Parks will continue to participate in regular (annual) meetings w/ regional partners (including NCC, OC Parks, and IRC) to set invasive plant control goals and actions for the reserve system as a whole. We expect to continue to monitor, map, and treat high priority invasive plants as well as treat high-priority EDRR species in 2024, similar in scope and scale to past years.

In 2024, we will further develop a plan to conserve rare native plants inhabiting the coastal terraces under threat by invasive plant species. The project will test the effectiveness of targeted invasive plants removal in paired, replicate plots containing at least 25% cover by rare plants. The project will initially involve re-surveying sites found to be rich in rare native plants in 2018 to establish baseline conditions and establish plot locations and assign treatments. This project will be done in collaboration with the Crystal Cove Conservancy.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Re-survey established transects in riparian habitat within moro and deer canyons. Surveys planned for summer 2024.

Other invasive species (please describe):

NA

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

State Parks has solicited Land IQ for an updated Fire Risk and Fuel Modification Zone Assessment along CCSP's southeast edge where these two residential communities exist. The aim is to let the results of this study inform any needed fuel management policy changes and formalize those changes in an updated fuel modification management

plan for the park. Contract is expected to be in place by end of 2024 and work completed in 2025.

Additionally, State Parks received additional funding in 2021-2025 to enhance habitat in existing fuel modification zones. This project will enhance habitat for coastal cactus wren while meeting fuel reduction objectives around Park infrastructure. It would also provide a demonstration area to the public on what “habitat friendly” fuel breaks look like.

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

State Parks works with two Laguna Beach HOAs to maintain hazard reduction zones adjacent to their property (Emerald Canyon and Irvine Crest Areas). Each year, the HOAs submit Right of Entry permit applications proposing to remove/manage vegetation extending 170 feet from edge of property, with the intensity of removal treatments (every 50 ft) dissipating with distance from property. Because the fuel management occurs in late spring, State Parks conducts nest surveys for birds and delineates any needed buffers from active nests/sensitive resources or postponements of treatments prior to their contractors entering the park to conduct their work.

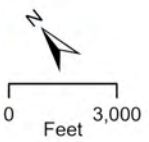
8.3 Orange County Parks

Aliso and Wood Canyons Wilderness Park



\\Products\PK00202064_NCCP_HCP_Management_Units_Maps_for_Annual_Report - Danny Fry

DESIGNED AND PRODUCED BY: DCCR OC Parks GIS
DATA SOURCE: OC Parks GIS; Earthstar Geographics (Aerial Imagery)
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DATE: February 6, 2023



Orange County Parks
Aliso and Wood Canyons
Wilderness Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Aliso & Wood Canyons WP

Website

<http://www.ocparks.com/parks/aliso>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Aliso & Wood Canyons Wilderness Park visitation dramatically lessened following peak visitation levels during COVID-19 in the prior two years. The park continued to recover from the May 2022 Coastal Fire. OC Parks conducted invasive plant surveys and targeted weed control to aid in the recovery of habitat values. The South Orange County Wastewater Authority (SOCWA) continued mitigating temporary impacts from the Sludge Force Main Replacement Project, and SCE performed work in preparation for future utility undergrounding.

In 2024, existing habitat restoration and mitigation projects will continue. The SOCWA temporary mitigation efforts will conclude if success criteria are met, and the mitigation plan for permanent impacts may be finalized and initiated. OC Parks will continue conducting ISHB and invasive weed surveys as well as controlling prioritized invasive weed species and capturing target plant populations and treatments in Calflora.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures.pdf](#)

Description of closure conditions and procedures.

Please see:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours – 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff

Closures for localized red flag conditions, as determined by staff

Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within the park.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y
Park Ranger	2	Y
Park Maintenance Supervisor	1	Y
Maintenance Worker (multiple classes)	2	Y
Staff Specialist	1	Y
Park Attendant	1	Y

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Adam Martinez	Supervising Park Ranger	adam.martinez@ocparks.com	949.923.2201
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

215943

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimates are based on parking data, visitor center logs, and trail cameras/counters.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 215,943

2022 - 398,025

2021 - 380,000

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Observations of motorized paragliding over the park and Sur-Ron electric bikes on park trails increased in 2023.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
01/10/2023	The Pearl hiking clinic	15
01/11/2023	The Pearl hiking clinic	15
02/07/2023	La Vida Laguna hiking event	15
04/19/2023	Board of Supervisor Wellness Walk event	20
11/12/2023	Dirt Fondo mountain bike event	100

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any

actions proposed or taken to address the degradation.

Trail conditions are monitored via wildlife cameras, ranger patrols, maintenance inspections, and reports from Laguna Canyon Foundation staff, park visitors, and volunteers. Camera monitoring of two unauthorized trails (Nestall and Smoothies) indicated increased unauthorized access. Plans to install preventative fencing are underway.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Aliso & Wood Canyons Wilderness Park; Meadows Trail; Addition of split-rail fencing

Start Date

2023-01-02

End Date

2023-06-30

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Annual grassland	0

Coordination with NCC?

No

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

Laguna Canyon Foundation staff added segments of split-rail fencing in strategic locations along Meadows Trail to prevent park users from creating unauthorized shortcuts between switchbacks on steeper sections of the trail.

Documentation: Reports, Notes, Photographs (Provide Reference)

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Aliso & Wood Canyons Wilderness Park; Paved road adjacent to Ben Brown's Golf Course; SCE pothole and pole project for utilities

Start Date

2023-01-12

End Date

2023-04-01

Was facility identified in an applicable GDP or RMP?

No

Coordination with NCC?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Developed	<0.01

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

SCE conducted emergency work to install eight potholes and one riser pole as part of undergrounding the Agate Powerline. The potholes were all located within the footprint of an existing paved roadway and the pole was located directly adjacent in the developed shoulder. Work did not impact habitat. The general work location is shown in the attached Google Earth exhibit.

Documentation: Reports, Notes, Photographs (Provide Reference)

- [SCE-ALWO-Pothole-Project.jpg](#)

V. Habitat Restoration and Enhancement**Did any habitat restoration or enhancement occur on the property?**

Yes

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

16.43

Riparian Community Acres

2.43

Other Restoration Community Acres

0.9

Other Restoration Community Type

Herbaceous wetland

If this is a formal restoration plan, please provide the name:

Final Habitat Mitigation & Monitoring Plan for the Coastal Treatment Plant Export Sludge Force Main Replacement Project 2019 [for SOCWA]

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2022-03-21

Anticipated End Date

2029-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for Cycle 8 surveys conducted in May 2023. The number of infested trees continued to drop from a peak in Cycle 5. It appears that trees may be successfully recovering, potentially due to a lack of surrounding ISHB pressure.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[ALWO-NCCP-Cycle-8-ISHB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

Yes

Fuel Management Map

[ALWO-FC-1.03-City-Grazing.pdf](#)

Project Number Referenced on the Map

1 - Work performed by the City of Laguna Beach Fire Department on behalf of the City

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Habitat Type(s) in Which Modification Occurred

- Annual grassland
- Disturbed vegetation

General Description of Fuel Modification Technique Employed

- Grazing

Approximate Area Treated in Acres

28

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

Maintenance

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing
Focused least Bells vireo surveys (Laguna Canyon Foundation) - Continuing
Focused California gnatcatcher surveys (Natural Communities Coalition / Leatherman) - Continuing
Post-fire leaf sampling research (UC Riverside) - Continuing
Post-fire seed collection (UC Irvine) - Continuing
Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Electric, telephone, cable television and natural gas facilities

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Pole 1: 33*31'27"N, 117*44'15"W; Pole 2: 33*31'25"N, 117*44'15"W (approximate; specific locations to be determined)

Impact Size

<0.01 ac

Habitat Type

Coastal sage scrub

Identify any project lead(s) (i.e., utility, government department):

SCE - Conceptual planning to underground power lines. Two new poles will be needed to span creek and several abandoned poles will be removed. Specifics remain to be determined.

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Water container: 33*32'10.75"N, 117*45'11.92"W (approximate; specific location to be determined)

Impact Size

200 sf

Habitat Type

Ruderal

Identify any project lead(s) (i.e., utility, government department):

City of Laguna Beach - Above-ground water for helicopter pulls during fire events

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Waterlines, reservoirs, associated facilities and regional water storage and treatment facilities

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) surveys and high-priority target weed control as outlined in the 5-year Invasive Plant Management Plan for the Coastal Reserve of the Nature Reserve of Orange County. Yellow starthistle (*Centaurea solstitialis*), Sahara mustard (*Brassica tournefortii*), stinkwort (*Dittrichea graveolens*), Arundo (*Arundo donax*), puncture vine (*Tribulus terrestris*), and spiny emex (*Rumex spinosus*) will constitute the primary target species. EDRR and target invasive weed treatment will continue in the Coastal Fire footprint and associated dozer lines.

Calflora and EDRR training for staff, contractors, and volunteers, including Laguna Canyon Foundation, is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

Cowbird trapping (Natural Communities Coalition) - Continuing

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

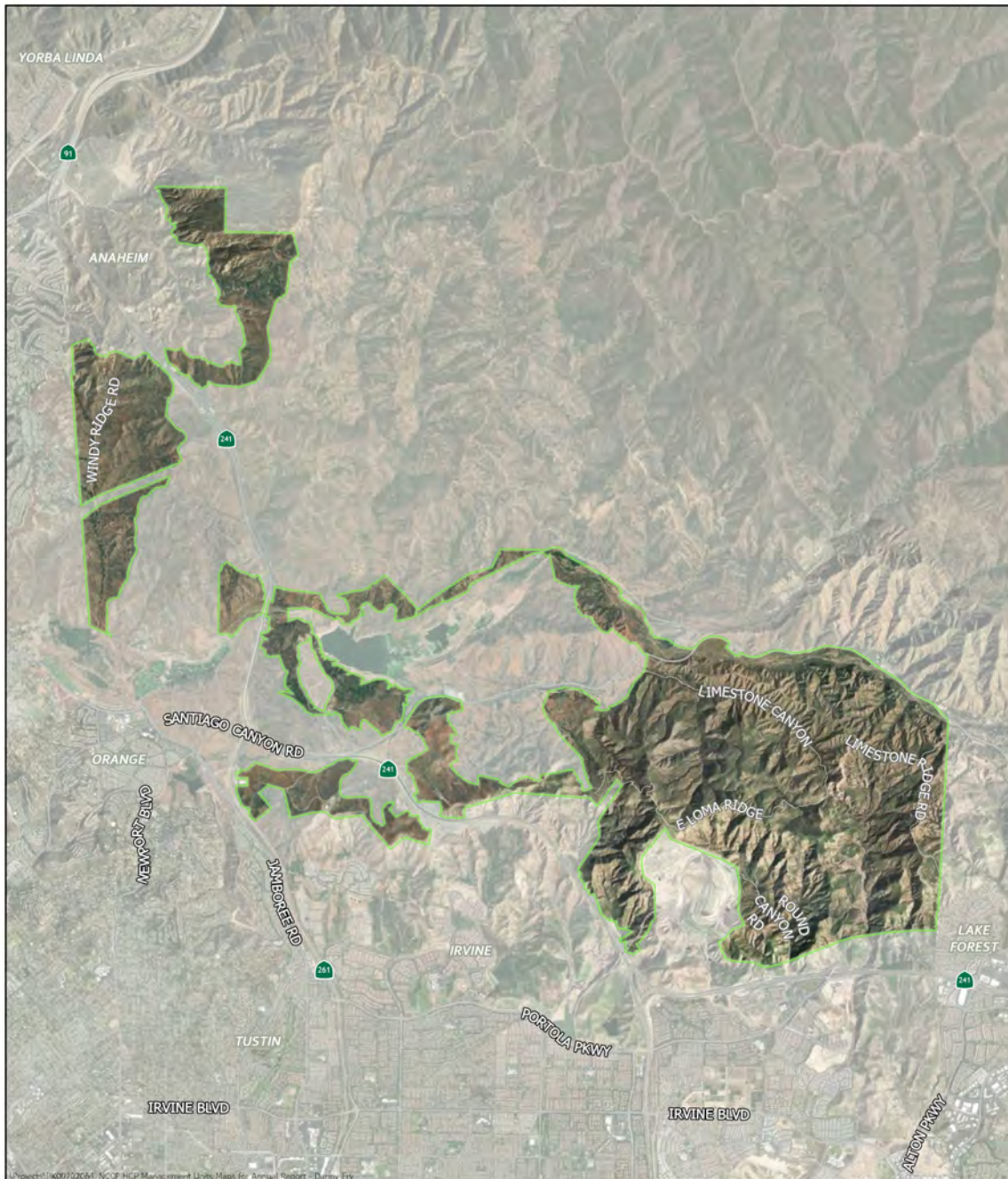
Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

Irvine Ranch Open Space



DESIGNED AND PRODUCED BY:
 OCCR
 OC Parks GIS

DATA SOURCE:
 OC Parks, OCPR, Earthstar Geographics (Aerial Imagery)

The County of Orange and OCCR/OC Parks/Surveys/GIS/LSI make no representations or warranties regarding the registration or accuracy of the data that select this map was derived. Neither the County, nor OCCR, OC Parks/Surveys/GIS/LSI shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



Orange County Parks
 Irvine Ranch
 Open Space



Land Manager Name

Irvine Ranch Conservancy

Reporting Year

2023/2024

Park, open space or management unit

Irvine Ranch Open Space

Website

<https://letsgooutside.org>

Land owning entity:

County of Orange

Land managing entity if different from above:

Irvine Ranch Conservancy

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

The Irvine Ranch Open Space received approximately 9,874 visitors for guided activities in 2023, which was 376 more than in 2022.

Regular annual inspections were conducted to assess erosion and vegetation encroachment within the designated trail system. Routine post-winter trail repairs were performed, and regular quarterly vegetation trimming was performed.

Trail width and trailside vegetation quality are monitored yearly, and there has been no significant change in trail width over time. Trail conditions are monitored continuously, and maintenance occurs as needed. Restoration and enhancement of multiple habitats is being conducted over 100 acres. One restoration project within the reserve received signoff from the regulatory agencies in September 2023. Efforts are underway to gain signoff for two additional restoration projects in 2024. Surveys and control of both invasive plant species and invasive beetles are ongoing and will continue in 2024.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Both Open and Hosted Limited Access

b. Is there an official written policy governing property closure conditions and procedures?

Yes

Description of closure conditions and procedures.

Unofficial: INTERNAL PROTOCOLS

OC Parks in collaboration with Irvine Ranch Conservancy uses internal protocols for cancellation of activities and closure of access to trails and roads that may occur in order to be consistent with the applicable resource plans. This may follow significant rain events and during periods of high fire danger such as official Red Flag Warnings. IRC will recommend closures for weather and other reasons, subject to the concurrence of the OC Parks Operations Manager. The OC Parks Operations Manager will provide additional guidance on closures based on trail condition assessments and provide status updates using trail status maps.

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

Description of special events use for the property.

OC Parks and IRC have developed internal guidelines in our efforts to adaptively manage human access at the Irvine Ranch Open Space. Currently, the Irvine Ranch Open Space allows one large event per month, per geographical management area (for example Black Star Canyon, Fremont Canyon, etc.). A large event is defined from 100 participants up to 600 participants. Additionally, the public activity calendar for each area where a large event is scheduled is blocked out for 1-3 days following the event to allow for a rest period. Trails available for special event use may be adjusted or completely restricted depending on surveyed nest locations or other sensitivities during breeding/nesting season. Special events will be rescheduled or cancelled in areas burned in major wildfires for at least one growing season to allow the area to recover with reduced human presence.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Operations Manager	1	
Supervising Park Ranger II	1	
Supervising Park Ranger I	1	
Park Ranger II	2	
Resource Specialist	1	
Park Maintenance Supervisor I	1	
Park Maintenance Worker II	1	
Park Maintenance Worker 1	1	

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Justin Sikora	Operations Manager	jsikora@ocparks.com	949-585-6481
Irvine Ranch Conservancy		4727 Portola Parkway Irvine, CA 92620	714-508-4757

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

9874

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

IRC manages the website www.LetsGoOutside.org, which promotes public access activities in the Irvine Ranch Open Space and the Irvine Ranch Natural Landmarks and is used to manage public activity registration, manage volunteer assignments, obtain public participant feedback, and automate reporting functions for activities. The registration system that IRC maintains on behalf of OC Parks allows the public to easily find and sign up for offered activities online. Once an individual completes registration for an activity, they receive an automated confirmation e-mail with a map to the location and additional instructions specific to the activity (clothing, trail conditions, etc.). The registered individual's information is also auto-populated into a Release of Liability Waiver that the volunteer or staff member leading the activity can print in advance. The pre-printed document is used both as the sign-in sheet and the Release of Liability Waiver, streamlining the sign-in process and minimizing the time before the event can commence.

After the activity, the leader returns to the website to fill out an online post-activity report form. This form confirms each participant's attendance in the database. Website functionality includes activity reports that are used to provide quarterly attendance reports, volunteer service hours, numbers of volunteers, number of activities, and other information to OC Parks as well as for NCCP reporting. Guided activity visitor numbers are reported to the landowner on a quarterly basis.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 9,874 visitors

2022 - 9,498 visitors

2021 - 2,286 visitors

These numbers are higher than previously reported due to a change in how visitation is quantified. Previously, activity leads would submit maps that were used to determine access to the Reserve. This information is no longer collected, so numbers from the previous two years were likely underestimates.

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

2023 - No

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
04/15/2023	Warrior Society/Post Event Awards/Blackstar Staging Area	300
04/05/2023	The Trailblazer Group/Trail Run/Blackstar	200
09/09/2023	The Trailblazer Group/Bike Ride/Fremont Canyon	300
11/10/2023	The Trailblazer Group/Bike Ride/Limestone Canyon	250
12/01/2023	The Trailblazer Group/Trail Run/Fremont	250
05/12/2023	The Trailblazer Group/Run Event/Limestone Canyon	250
06/02/2024	IRC/Special Event/Limestone Canyon	250

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
No current observations			

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored regularly throughout the year and after any significant rainfall event (>0.25"), and maintenance occurs within the limits of the trail-tread on an as-needed basis. Annual preventative maintenance includes, but is not limited to, filling rills and ruts, implementing industry-standard natural surface erosion control measures (grade dips, grade reversals, grade nicks, etc.), trail armoring, and sediment removal from existing erosion control features. Vegetation trimming is limited to maintenance of the scheduled trail widths per the approved RRMP. No trails were observed to have excessive erosion that required any maintenance beyond the routine anticipated annual post-winter repairs.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Shoestring Single-Track Trail: Tread Hardening. Existing trail tread received hardening utilizing approved "GeoGrid" turf mats, overlaid with 4" of engineered Class II Base. Approximately 450 lineal feet was re-surfaced, creating a crowned Causeway to eliminate the historical area of post-rain standing water. Approximate location Beginning/End. 33.75905617719462, -117.70280896125293 / 33.76010947677882, -117.70432624772367

Start Date

2023-10-10

End Date

2023-12-16

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
No Habitat Impacts	

Coordination with NCC?

No

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

Disturbance limited to the re-established trail footprint only

Documentation: Reports, Notes, Photographs (Provide Reference)

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

26.1

Grassland Community Acres

34.2

Riparian Community Acres

1.2

Woodland Community Acres

1

If this is a formal restoration plan, please provide the name:

West Loma II - OCTA HMMP: West Loma Subwatershed

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2013-10-21

Anticipated End Date

2023-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

No

CSS Community Acres

27.9

Grassland Community Acres

9.75

If this is a formal restoration plan, please provide the name:

West Loma I - Phase II Restoration Plan for Orange County Parks West Loma Subwatershed

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2010-01-01

Anticipated End Date

2029-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

0.8

Riparian Community Acres

0.5

If this is a formal restoration plan, please provide the name:

Agua Chinon OCTA - HMMP: Agua Chinon Subwatershed

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2013-01-01

Anticipated End Date

2023-09-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

6.89

Riparian Community Acres

7.65

Woodland Community Acres

2.42

If this is a formal restoration plan, please provide the name:

Agua Chinon OCWR - HMMP: Agua Chinon Wash San Diego Creek Watershed

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2013-01-01

Anticipated End Date

2024-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

No

Woodland Community Acres

2

If this is a formal restoration plan, please provide the name:

Enhancing Tecate Cypress to Promote Population Resilience

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2019-11-13

Anticipated End Date

2024-03-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin

Project Lead

Third party

Mitigation

No

CSS Community Acres

0.5

Grassland Community Acres

0.4

Woodland Community Acres

0.4

If this is a formal restoration plan, please provide the name:

Augustine Staging Area - Beautification and Enhancement

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2020-01-01

Anticipated End Date

2029-03-31

Performance Monitoring

No

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

No

Grassland Community Acres

0.3

If this is a formal restoration plan, please provide the name:

Pilot Project to Enhance Butterfly Habitat in Limestone Canyon

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2022-01-07

Anticipated End Date

2025-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi- Chin

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

GSOB-infested coast live oaks were identified in Weir Canyon in 2014 and have been monitored and treated each year. In 2017, a sycamore in Weir was discovered to have signs of ISHB infestation and was subsequently removed. Sycamores in Upper Weir and Agua Chinon Canyons were surveyed in 2020, but no infestations were detected. No surveys have been conducted for ISHB in those areas since 2020.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

GSOB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Coast Live Oak	GSOB	Weir and Gypsum Canyon	323

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

GSOB-infested coast live oaks were identified in Weir Canyon in 2014 and have been monitored and treated each year. In 2018, the infestation was found to have spread to isolated trees in Gypsum Canyon. In April and May 2023, approximately 1,440 coast live oaks, including known infested trees and adjacent uninfested trees, were treated with carbaryl.

In 2017, a sycamore in Weir was discovered to have signs of ISHB infestation and was subsequently removed. Sycamores in Upper Weir and Agua Chinon Canyons were surveyed in 2020, but no infestations were detected.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Trail condition monitoring is being revised to capture larger trail segments and to incorporate drone imagery to provide more information. There is ongoing long-term vegetation monitoring as well as monitoring and research related to wildlife, invasive tree pests and western spadefoot.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Trails

Location where above work is proposed to take place? (GPS approximate center of project location and

record below):

Upper Agua Chinon (bypass) trail implementation: shown on the Irvine Ranch Open Space RRMP (Exhibit G) - part of the long-term reduction of roads within the Limestone Canyon Preserve. - 4' wide multi-use trail approximately 2.02 miles. The lower and upper portions of the trail intersect with the existing Agua Chinon Road at the approximate coordinates of 33°41'40.6"N 117°41'21.5"W and 33°42'03.1"N 117°40'50.2"W. - a portion of the existing Agua Chinon road segment (approximately 3,990 lineal feet, 12' width) to be reclaimed to natural habitat and reduced to a 4' wide natural surface single-track trail. **No anticipated take

Impact Size

TBD

Habitat Type

Degraded grassland/scrub, chaparral, CSS

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Overlook Viewing Deck and approach trail: Implement the construction of the viewing deck and approach trail for the Overlook Trail viewpoint. 24' radius circular at-grade viewing deck with 3' wide by 80' long approach trail. Center point coordinates of the viewing deck 33°49'39.7"N 117°43'24.1"W. ** No anticipated take

Impact Size

.16 Acre

Habitat Type

Degraded Grassland

Identify any project lead(s) (i.e., utility, government department):

Adam J. Maywhort
Director-Planning & Infrastructure

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

IRC will continue to monitor and treat priority invasive plants and report the results in Calflora.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

IRC will continue to monitor and chemically treat known GSOB infestation in Weir and Gypsum Canyons as well as survey for GSOB and ISHB in other parts of the Reserve.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

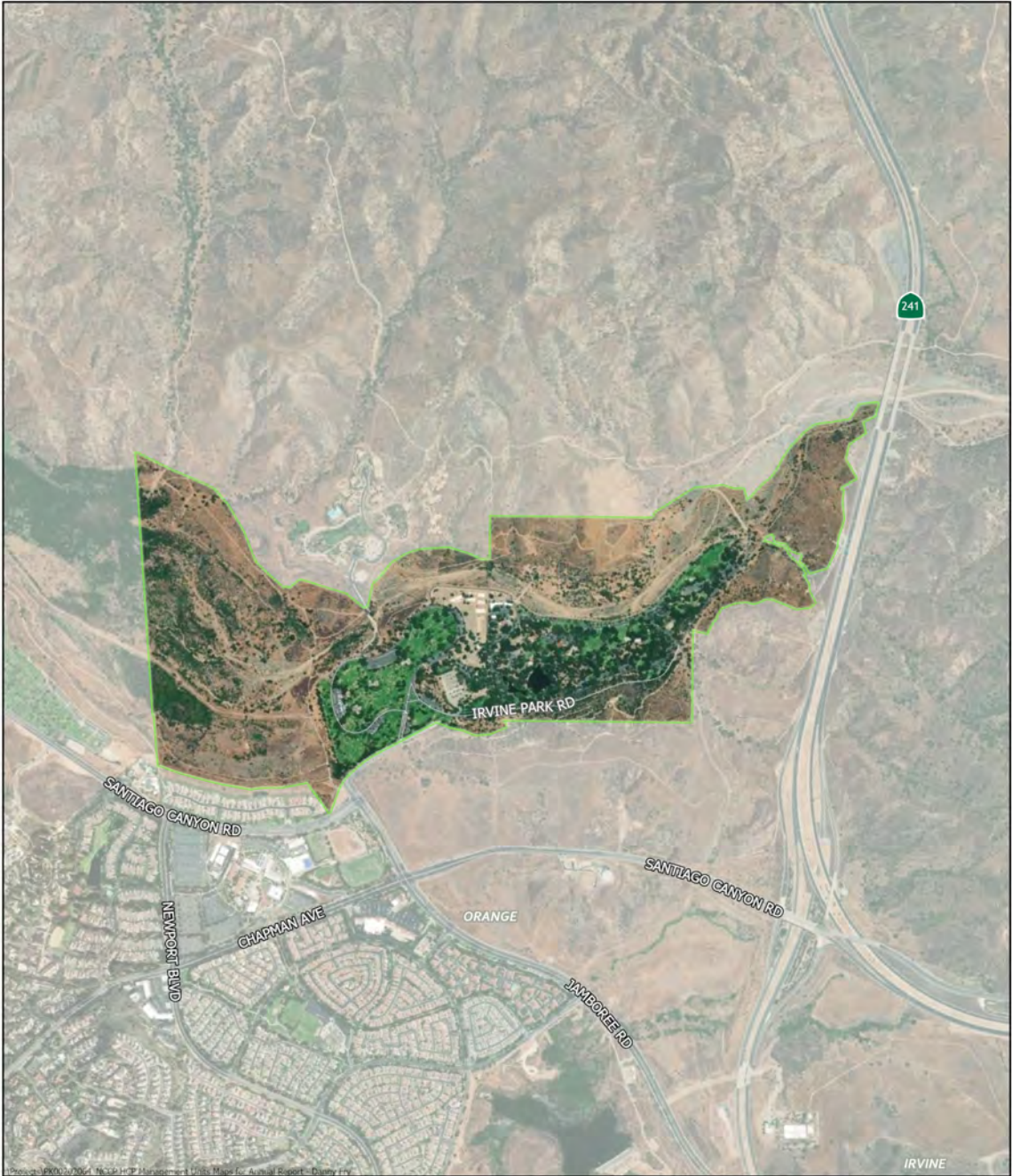
No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.3 Orange County Parks

Irvine Regional Park

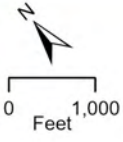


DESIGNED AND PRODUCED BY:
OC Parks
OC Parks GIS

DATA SOURCE:
OC Parks, OC Parks, Earthstar Geographics (Aerial Imagery)

The County of Orange and OC Parks/OC Parks/OC Parks/OC Parks/OC Parks make no representations or warranties regarding the registration or accuracy of the data from which this map was derived. Neither the County nor OC Parks/OC Parks/OC Parks/OC Parks/OC Parks shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



Orange County Parks
Irvine
Regional Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Irvine RP

Website

<http://www.ocparks.com/parks/irvine>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Irvine Regional Park visitation remained relatively stable. OC Parks completed enhancements to the Adventure Trail near the park entrance and initiated installation of a shade structure over a group shelter in the park's interior. The Irvine Ranch Water District (IRWD) continued maintaining habitat restoration for temporary impacts resulting from the 2022 installation of a 54-inch pipeline across a portion of Santiago Creek. In 2024, OC Parks will continue conducting ISHB and invasive weed surveys as well as controlling priority invasive weed species and capturing target plant populations and treatments in Calflora.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-1.pdf](#)

Description of closure conditions and procedures.

Please see:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff

Closures for localized red flag conditions, as determined by staff

Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year's annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-1.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year's annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y
Park Ranger	3	Y
Park Maintenance Supervisor	2	Y
Maintenance Worker (multiple classes)	14	Y
Maintenance Worker	2	N
Staff Specialist	1	Y

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Jason Arthur	Supervising Park Ranger	jason.arthur@ocparks.com	714.973.6834
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimates are based on parking data, visitor center logs, and monthly trends.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 1,698,663

2022 - 1,749,201

2021 - 1,377,944

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of uses were observed.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
04/08/2023	REI bike skills class	12
04/23/2023	REI bike skills class	10
05/13/2023	REI bike skills class	12
06/25/2023	REI bike skills class	12

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager**a. Does land owner or its land managing representative monitor trail conditions annually?**

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, visitor reports, and wildlife cameras. No new trail trends were observed. Three Safe Trails Awareness Day events were held to promote trail safety and respect; attendance totaled approximately 500 people.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all

roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Irvine Regional Park; Falcon Flats (interior of park); OC Parks group area shade structure

Start Date

2023-12-11

End Date

2024-01-31

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Developed	0

Coordination with NCC?

No

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

A shade structure is being constructed over an already-existing concrete pad to provide sun protection for visitors at the park's largest group shelter. The project occurs in an interior, developed area of the park and will result in no habitat impacts.

Documentation: Reports, Notes, Photographs (Provide Reference)

Facility & Location

Irvine Regional Park; Children's Trail (interior of park); OC Parks Habitat Adventure Trail enhancement

Start Date

2023-01-01

End Date

2023-10-14

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Oak woodland, developed	4

Coordination with NCC?

No

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

The project included enhancing the trail network, play elements, interpretative signage, and landscaping in an interior, developed area of the park near the park entrance. The project site was weeded to reduce non-native grasses and mustard before planting with native species. The project did not create temporary or permanent habitat impacts.

Documentation: Reports, Notes, Photographs (Provide Reference)

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Irvine Regional Park; Park interior; SCE utility pole replacement and fire hardening

Start Date

2023-06-27

End Date

2023-06-28

Was facility identified in an applicable GDP or RMP?

Yes

Coordination with NCC?

No

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Developed, woodland	0

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

Work was sited in interior, developed portions of the park. Fire hardening activities were limited to minor limbing of trees around the utility wires. Work was performed with a qualified biologist present.

Documentation: Reports, Notes, Photographs (Provide Reference)

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

0.11

Riparian Community Acres

0.14

If this is a formal restoration plan, please provide the name:

Baker Pipeline Restoration Project for the 54-inch Baker Pipeline Realignment in Reach 1U through Santiago Creek by Santiago Aqueduct Commission

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-11-30

Anticipated End Date

2024-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see the attached report for ISHB trapping program information and the 50 trap locations in the park.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
--	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[IRRE-NCCP-2023-Q2-ISHB-Trap-Monitoring-Summary.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing
Mountain lion movement study (Felidae Conservation in collaboration with UC Davis) - Continuing; initiated in 2023
Large carnivore rodenticide monitoring (UC ANR-Cooperative Extension) - Continuing; initiated in 2023
Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.
The OC Waste & Recycling oak woodland mitigation project is reported separately.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) surveys and high-priority target weed control as outlined in the 5-year Invasive Plan Management Plan for the Central Reserve of the Nature Reserve of Orange County. Yellow starthistle (*Centaurea solstitialis*), Sahara mustard (*Brassica tournefortii*), stinkwort (*Dittrichea graveolens*), spiny emex (*Rumex spinosus*), fountain grass (*Pennisetum setaceum*), and Arundo (*Arundo donax*) will constitute the primary target species.

Calflora and EDRR training for staff, contractors, and volunteers is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees will be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

Cowbird trapping (Natural Communities Coalition) - Continuing

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

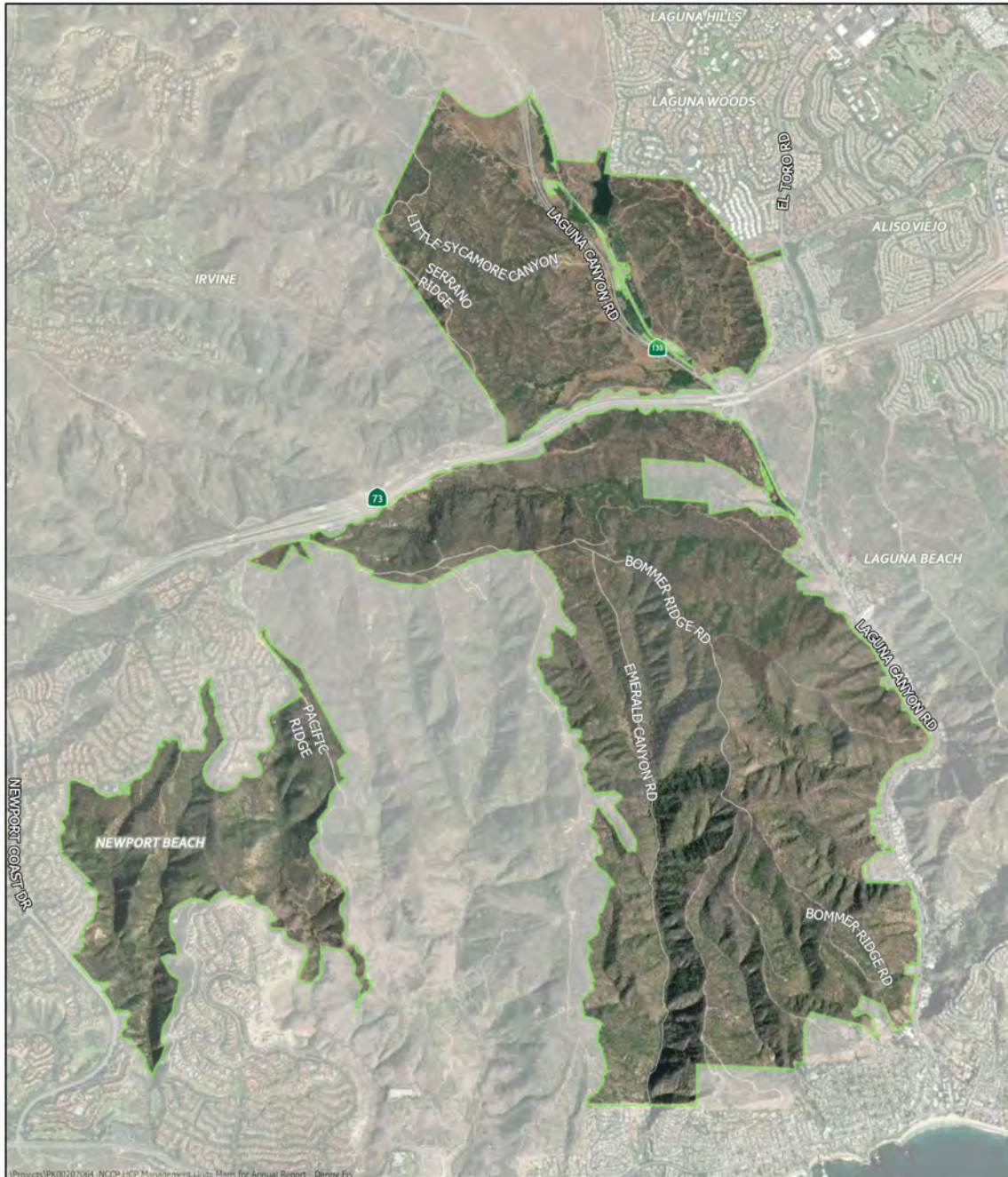
Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

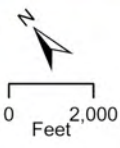
Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

Laguna Coast Wilderness Park



<p>DESIGNED AND PRODUCED BY: OCPA 909 Park St</p>	
<p>DATA SOURCE: OCPA, OPR, Barrister Geographic (Aerial Imagery)</p> <p><small>The County of Orange and OCPA/OCPA Parks/Survey/GIS/ESD make no representations or warranties regarding the regulation or accuracy of the data that appears on this map and/or data. Neither the County nor OCPA/OCPA Parks/Survey/GIS/ESD shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.</small></p>	
<p>DATE: February 6, 2023</p>	



Orange County Parks
 Laguna Coast
 Wilderness Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Laguna Coast WP

Website

<http://www.ocparks.com/parks/lagunac>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Laguna Coast Wilderness Park continued to see a reduction in visitation from peak COVID-19 levels. Restoration continued to repair fire suppression damages from bulldozer work related to the 2021 SR-73 Fire. The Natural Communities Coalition-sponsored spadefoot toad habitat restoration and USFWS-sponsored Pacific pocket mouse reintroduction projects continued. Efforts intensified to eradicate the only known North American population of the nonnative, invasive weed species, stinking Roger (*Osteospermum calendulaceum*). In 2024, OC Parks, LCF, and volunteers *Osteospermum calendulaceum*

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-2.pdf](#)

Description of closure conditions and procedures.

Please see:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff

Closures for localized red flag conditions, as determined by staff

Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year's annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-2.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year's annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y
Park Ranger	2	Y
Park Maintenance Supervisor	1	Y
Maintenance Worker (multiple classes)	2	Y
Staff Specialist	1	Y
Park Attendant	1	N

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Brad Barker	Supervising Park Ranger	brad.barker@ocparks.com	949.923.2201
Matt Major	Natural Resources Program Coordinator	matt.major@ocparks.com	657.266.4701

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimates are based on parking data, visitor center tallies, and trail cameras/counters.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 259,587

2022 - 283,827

2021 - 381,851

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of park uses were noted.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
01/2023 x 2	La Vida Laguna hiking event	30 total
01/2023 x 2	The Pearl hiking event	38 total
02/2023 x 2	La Vida Laguna hiking event	30 total
02/2023 x 2	The Pearl hiking event	38 total
03/2023 x 2	La Vida Laguna hiking event	30 total
03/2023 x 2	The Pearl hiking event	38 total
04/2023 x 2	La Vida Laguna hiking event	30 total
04/2023 x 2	The Pearl hiking event	38 total
05/2023 x 2	La Vida Laguna hiking event	30 total
05/2023 x 2	The Pearl hiking event	38 total
06/2023 x 2	La Vida Laguna hiking event	30 total
06/2023 x 2	The Pearl hiking event	38 total
07/2023 x 2	La Vida Laguna hiking event	30 total
07/2023 x 2	The Pearl hiking event	38 total
08/2023 x 2	La Vida Laguna hiking event	30 total
08/2023 x 2	The Pearl hiking event	38 total
09/2023 x 2	La Vida Laguna hiking event	30 total
09/2023 x 2	The Pearl hiking event	38 total

10/2023 x 2	La Vida Laguna hiking event	30 total
10/2023 x 2	The Pearl hiking event	38 total
11/2023 x 2	La Vida Laguna hiking event	30 total
11/2023 x 2	The Pearl hiking event	38 total
11/11/2023	Dirt Fondo mountain bike event	25
12/2023 x 2	La Vida Laguna hiking event	30 total
12/2023 x 2	The Pearl hiking event	38 total

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
01/01/2023	Unauthorized dumping	Ruderal, transitional riparian	<0.2

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via wildlife cameras, ranger patrols, maintenance inspections, and reports from Laguna Canyon Foundation staff, park visitors, and volunteers. Observations indicate continued persistence of unauthorized trail creation and usage. Staff and non-profit support partner Laguna Canyon Foundation will continue efforts to address unauthorized trails quickly and effectively.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Laguna Coast Wilderness Park 73 Dozer Scar Habitat Restoration Project

Mitigation

No

Cactus Scrub Community Acres

5

If this is a formal restoration plan, please provide the name:

Laguna Coast Wilderness Park 73 Dozer Scar Habitat Restoration Project

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-01-04

Anticipated End Date

2026-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

OC Parks GIS Manager

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report. The most recent ISHB survey occurred in May 2023 and includes the greatest total number of trees surveyed to date. Data indicates relatively stable infestation levels in the park. In addition to the surveys, 17 sticky traps were also placed in key locations in the park to collect flight pattern data over time.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[LACO-NCCP-Cycle-8-ISHB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

Yes

Project Number Referenced on the Map

Fire Compartment 2.09 - Nix Nature Center

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Habitat Type(s) in Which Modification Occurred

- Other

If You Selected Other, Please Specify:

Mixed native plantings surrounding Nix Nature Center

General Description of Fuel Modification Technique Employed

- Pruning/thinning
- Shrub matrix/remove dead material

Approximate Area Treated in Acres

1

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

Maintenance

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing

Mountain lion movement study (Felidae Conservation in collaboration with UC Davis) - Continuing; initiated in 2023

Plant moisture monitoring (Laguna Coast Fire Safe Council) - Continuing

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Encroachment: 33*33'23.27"N, 117*48'14.64"W

Impact Size

0.1 acres

Habitat Type

Ruderal, transitional riparian, coastal sage scrub

Identify any project lead(s) (i.e., utility, government department):

California Department of Fish & Wildlife - Pursuing enforcement with the adjacent HOA to remove illegal soils dumping on OC Parks land

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

The spadefoot toad restoration (Natural Communities Coalition) and Pacific pocket mouse reintroduction (US Fish & Wildlife Service / San Diego Zoo Wildlife Alliance) projects are reported separately.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) surveys and high-priority target weed control as outlined in the 5-year Invasive Plan Management Plan for the Coastal Reserve of the Nature Reserve of Orange County. Stinking Roger (*Osteospermum calendulaceum*), boneseed (*Chrysanthemoides monilifera* ssp. *monilifera*), Sahara mustard (*Brassica tournefortii*), stinkwort (*Dittrichea graveolens*), veldtgrass (*Ehrhart calycina*), and St. John's wort (*Hypericum canariense*) will constitute the primary target species. Calflora and EDRR training for staff, contractors, and volunteers, including Laguna Canyon Foundation, is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing Nix Interpretive Center fuel management and facility road/trail maintenance, including vegetation brushing and weed abatement, will continue.

Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Peters Canyon RP

Website

<http://www.ocparks.com/parks/peters>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Peters Canyon Regional Park visitation was similar to 2022. OC Parks continued restoration of decommissioned segments of East Ridge View Trail. The OC Public Works mitigation in upper Peters Canyon Wash continued and the next phase of downstream mitigation initiated. In 2024, existing habitat restoration and mitigation projects will continue. OC Parks will continue ISHB and invasive weed surveys and control prioritized species, capturing target plant populations and treatments in Calflora.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures.pdf](#)

Description of closure conditions and procedures.

Please see:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff
 Closures for localized red flag conditions, as determined by staff
 Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Steve Jax	Supervising Park Ranger	steve.jax@ocparks.com	714.973.6612
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner’s estimate:

318209

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimate is based on parking data and observation of monthly trends.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 318,209
2022 - 320,274
2021 - 362,242

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Observations of paragliding over the park and Sur-Ron electric bikes on park trails increased in 2023.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, and park visitor reports. No new trail trends were observed other than an increase in Sur-Ron electric bikes. All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

East Ridge Trail Realignment

Mitigation

No

CSS Community Acres

0.21

If this is a formal restoration plan, please provide the name:

East Ridge Trail Realignment Restoration

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-11-29

Anticipated End Date

2026-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

OC Parks GIS Manager

Project Lead

Third party

Mitigation

Yes

Riparian Community Acres

2.97

If this is a formal restoration plan, please provide the name:

Addendum No. 2 To the Peters Canyon Wash Habitat Mitigation Program For Lane Channel Maintenance Project and Barranca Channel Maintenance Project by OC Public Works

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2023-10-17

Anticipated End Date

2028-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

OC Parks GIS Manager

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for survey information. The May 2023 survey showed a minimal increase in the number of infested trees compared to the last survey cycle. Almost all infested trees are located at the southern end of the park.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low to Heavy - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[PECA-NCCP-Cycle-8-ISHB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing

Mountain lion movement study (Felidae Conservation in collaboration with UC Davis) - Continuing; initiated in 2023

Large carnivore rodenticide monitoring (UC ANR-Cooperative Extension) - Continuing; initiated in 2023
Christmas bird count (Sea and Sage Audubon) - Continuing
Vegetation Classification update (Natural Communities Coalition) - New
Least Bells vireo surveys (OC Public Works) - Completed in 2023

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Trails

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Regional Trail: 33°46'46.59"N, 117°45'33.32"W

Impact Size

Estimated 1.0 acres

Habitat Type

Coastal sage scrub and ruderal

Identify any project lead(s) (i.e., utility, government department):

OC Public Works - Regional Trails Plan (timeline unknown)

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Parking lot improvement: 33°47'05.50"N 117°45'41.84"W

Habitat Type

Developed

Identify any project lead(s) (i.e., utility, government department):

OC Parks - Install minor improvements in the footprint of an existing DG parking lot to prevent sedimentation into the surrounding area

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Storm drain and flood control facilities
- Access roads

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Storm drain: 33*46'55"N, 117*45'36"W

Impact Size

TBD

Habitat Type

Riparian, coastal sage scrub

Identify any project lead(s) (i.e., utility, government department):

The Irvine Company - 84" pipeline to Peters Canyon Reservoir for East Orange development

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

The OC Public Works Peters Canyon Wash mitigation projects are reported separately.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response surveys and high-priority target weed control as outlined in the 5-year Invasive Plant Management Plan for the Central Reserve of the Nature Reserve of Orange County. Sahara mustard (*Brassica tournefortii*), spiny emex (*Rumex spinosa*), artichoke thistle (*Cynara cardunculus*), fountain grass (*Pennisetum setaceum*), and stinkwort (*Dittrichia graveolens*) will constitute the primary target species.

Calflora and EDRR training for staff, contractors, and volunteers is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

Cowbird trapping (Natural Communities Coalition) - Continuing

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

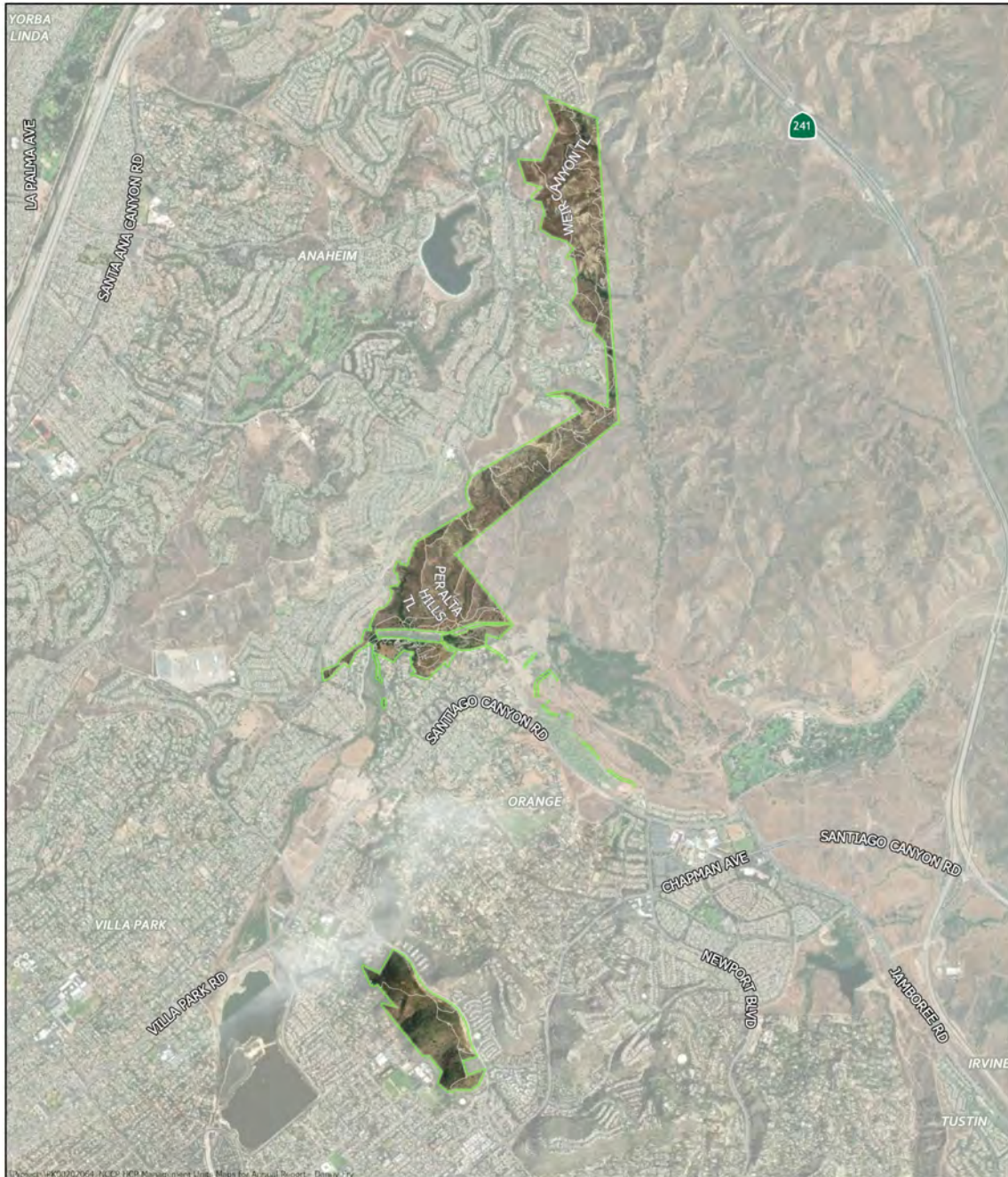
Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

Santiago Oaks Regional Park

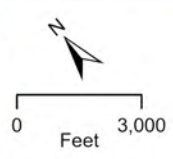


DESIGNED AND PRODUCED BY:
 OCPA
 OC Parks GIS

DATA SOURCE:
 OC Parks, OCPA; Earthstar Geographics (Aerial Imagery)

The County of Orange and OCPA/OC Parks/Survey/GIS/ES/IS make no representations or warranties regarding the registration or accuracy of the data shown on this map save as defined. Neither the County, nor OCPA/OC Parks/Survey/GIS/ES/IS shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



Orange County Parks
 Santiago Oaks
 Regional Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Santiago Oaks RP

Website

<http://www.ocparks.com/parks/santiago>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Santiago Oaks Regional Park experienced lower visitation than 2021 and 2022. The park began to recover from the July 2023 Serrano Fire, which burned approximately three acres of degraded coastal sage scrub.

Maintenance of an OC Waste & Recycling oak tree mitigation project continued.

In 2024, OC Parks will continue to conduct ISHB and invasive weed surveys and control prioritized invasive weed species, capturing target plant populations and treatments in Calflora.

* Please note, El Modena Open Space is included under the management of Santiago Oaks Regional Park.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-1.pdf](#)

Description of closure conditions and procedures.

Please see:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours – 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff

Closures for localized red flag conditions, as determined by staff

Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-1.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y
Park Ranger	1	Y

3. Property Supervisor Contact Information

Name	Title	Email	Phone
2023: Annelise Gannaway	Supervising Park Ranger	annelise.gannaway@ocparks.com	
2024: Candi Hubert	Supervising Park Ranger	candice.hubert@ocparks.com	714.973.6621
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner’s estimate:

133418

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimates are based on parking data and observation of monthly trends.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 133,418
2022 - 145,896
2021 - 196,049

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of park uses were noted.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	---	---	---

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, visitor reports, and wildlife cameras. No new trail trends were observed. The Windes and Pacifica Trails reopened following a month-long closure due to the July 2023 Serrano Fire.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Third party

Mitigation

Yes

Woodland Community Acres

8

If this is a formal restoration plan, please provide the name:

OC Waste & Recycling Oak Tree Mitigation and Monitoring Plan

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2014-01-01

Anticipated End Date

2034-01-01

Performance Monitoring

Yes

Data Archived in GIS Database

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for Cycle 8 survey information, conducted in May 2023. Note, the GSOB finding identified in the attached map has since been contradicted. The map is included to show the surveyed trees that did not contain signs of GSOB. The park will be resurveyed for ISHB in 2024.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low to Heavy - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[SAOA-NCCP-Cycle-8-GSOB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing

Mountain lion movement study (Felidae Conservation in collaboration with UC Davis) - Continuing; initiated in 2023

Large carnivore rodenticide monitoring (UC ANR-Cooperative Extension) - Continuing; initiated in 2023

Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

The OC Waste & Recycling oak woodland mitigation project is reported separately.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) surveys and high-priority target weed control as outlined in the 5-year Invasive Plant Management Plan for the Central Reserve of the Nature Reserve of Orange County. Sahara mustard (*Brassica tournefortii*), fountain grass (*Pennisetum setaceum*), Arundo (*Arundo donax*), castor bean (*Ricinus communis*), and Pampas grass (*Cortaderia selloana*) will constitute the target species in Santiago Oaks RP. Sahara mustard and fountain grass will constitute the primary target species in El Modena OS. Calflora and EDRR training for staff, contractors, and volunteers is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

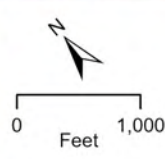
Talbert Regional Park



DESIGNED AND PRODUCED BY:
OC Parks GIS

DATA SOURCE:
OC Parks GIS; Esri; Google Earth; Aerial Imagery

DATE: February 6, 2023



Orange County Parks
Talbert
Regional Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Talbert NP

Website

<http://www.ocparks.com/parks/talbert>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Talbert Regional Park visitation was slightly less than 2022 and remained stable overall. Master planning efforts continued and a grant-funded habitat enhancement project was initiated in South Talbert.

In 2024, OC Parks anticipates finalizing a Master Plan for the park and completing the grant-funded habitat enhancement. Staff and contractors will continue to conduct ISHB and invasive weed surveys. Prioritized species will be controlled and target plant populations and treatments will be captured in Calflora.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-2.pdf](#)

Description of closure conditions and procedures.

Please see attached file:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff
 Closures for localized red flag conditions, as determined by staff
 Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-2.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1 (covers Talbert & Upper Newport Bay)	Y
Park Ranger	1 (covers Talbert & Upper Newport Bay)	Y
Maintenance Supervisor	1 (covers Talbert & Upper Newport Bay)	Y
Maintenance Worker (multiple classes)	9 (covers Talbert & Upper Newport Bay)	Y
Staff Specialist	1 (covers Talbert & Upper Newport Bay)	Y
Park Attendant	1 (covers Talbert & Upper Newport Bay)	N

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Derrick Ankerstar	Supervising Park Ranger	derrick.ankerstar@ocparks.com	714.923.2294
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner’s estimate:

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Staff estimate is based on visitor contacts and observation of monthly trends.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 117,250

2022 - 118,256

2021 - 117,000

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Observations of motorized paragliding over the park and Sur-Ron electric bikes on park trails increased in 2023.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
05/05/2023	OC Marathon running event	Unknown

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager**a. Does land owner or its land managing representative monitor trail conditions annually?**

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, and reports from park visitors and volunteers. No new trail trends were observed outside of an increase in Sur-Ron electric bikes.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Talbert Regional Park (South) Habitat Enhancement

Mitigation

No

If this is a formal restoration plan, please provide the name:

Talbert Regional Park (South) Habitat Enhancement

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2023-01-02

Anticipated End Date

2024-06-28

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

OC Parks GIS Manager

Other Restoration Community Acres

5

Other Restoration Community Type

Riparian transitional

CSS Community Acres

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for survey information. May 2023 surveys of North Talbert show continued reduced numbers of infested trees compared to previous survey cycles.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest - No treatment

Low to Heavy - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[TARE-NCCP-Cycle-8-ISHB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

Yes

Please explain why the GDP and/or Master Plan was created anew or amended.

Talbert Regional Park is in need of a Master Plan. Biological studies were conducted and master planning initiated in 2021, continuing through 2023. Following stakeholder input from the public, municipalities, and regulatory agencies, it is anticipated that the Master Plan will be finalized and approved in 2024.

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing
Large carnivore rodenticide monitoring (UC ANR-Cooperative Extension) - Continuing; initiated in 2023
Victoria Pond water quality monitoring (OC Public Works) - Continuing
Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

The Talbert Regional Park Habitat Enhancement project is grant-funded. The project received review from all regulatory agencies and has a Coastal Development Permit . Work initiated in 2023 and and is anticipated to be completed in 2024.

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

The OC Public works mitigation mitigation projects are reported separately.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) surveys and high-priority target weed control as outlined in the 5-year Invasive Plan Management Plan for the Coastal Reserve of the Nature Reserve of Orange County. Pampas grass (*Cortaderia selloana*), perennial pepperweed (*Lepidium latifolium*), Myoporum (*Myoporum laetum*), Brazilian pepper (*Schinus terebinthifolius*), palms (sp.), and ice plant (sp.) will constitute the primary target species.

Calflora and EDRR training for staff, contractors, and volunteers is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

Upper Newport Bay Nature Preserve

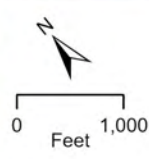


DESIGNED AND PRODUCED BY:
 OCPA
 OC Parks GIS

DATA SOURCE:
 OC Parks (OCPA); Earthstar Geographics (Aerial Imagery)

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DATE: February 6, 2023



Orange County Parks
 Upper Newport Bay
 Nature Preserve



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Upper Newport Bay NP

Website

<http://www.ocparks.com/parks/newport>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Upper Newport Bay Nature Preserve visitation increased slightly over 2022. Volutaria control efforts continued in partnership with Newport Bay Conservancy (NBC) and the California Department of Fish and Wildlife (CDFW).

In 2024, OC Parks, NBC, and volunteers will continue to perform invasive weed surveys and control prioritized species, capturing target plant populations and treatments in Calflora. Planning efforts are anticipated to continue for the OC Flood Control conceptual project to widen the Delhi Bridge and make trail and channel improvements.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-3.pdf](#)

Description of closure conditions and procedures.

Please see attached file:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff

Closures for localized red flag conditions, as determined by staff

Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year's annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-3.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by operations field and management staff. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year's annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1 (covers Upper Newport & Talbert)	Y
Park Ranger	1 (covers Upper Newport & Talbert)	Y
Maintenance Supervisor	1 (covers Upper Newport & Talbert)	Y
Maintenance Worker (multiple classes)	9 (covers Upper Newport & Talbert)	Y
Staff Specialist	1 (covers Upper Newport & Talbert)	Y
Park Attendant	1 (covers Upper Newport & Talbert)	N

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Derrick Ankerstar	Supervising Park Ranger	derrick.ankerstar@ocparks.com	714.923.2294
Alisa Flint	Natural Resources Program Coordinator	alisa.flint@ocparks.com	949.585.6470

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

652516

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Estimates are based on visitor center tallies and observation of monthly trends.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 652,516

2022 - 651,244

2021 - 622,495

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No new types of park use were noted.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
04/15/2023	Team World Vision running event	50
05/05/2023	OC Marathon running event	Unknown

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, and reports from Newport Bay Conservancy staff, park visitor, and volunteers. No new trail trends were observed.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for Cycle 8 surveys conducted in June 2023. Infestation rates appear to have remained stable since the Cycle 7 surveys.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Please see attached	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

General treatment prescriptions for OC Parks management by infestation severity follow:

Lowest- No treatment

Low - Soil injection with Imidacloprid, trunk spray of Bifenthrin with Cease/Nu Film 17

Amplifier - Remove tree

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[UPNE-NCCP-Cycle-8-ISHB-Map.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Monthly bird count (Sea and Sage Audubon) - Continuing
Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing
Large carnivore rodenticide monitoring (UC ANR-Cooperative Extension) - Continuing; initiated in 2023
Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Storm drain and flood control facilities

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Bridge and channel improvements: 33*39'10"N, 117*53'01"W

Impact Size

Tbd

Habitat Type

Ruderal and bare ground, estuarine, transitional

Identify any project lead(s) (i.e., utility, government department):

OC Flood Control - Planning underway to strengthen/widen bridge
improve trails
and revegetate. Specifics remain to be determined.

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks and Newport Bay Conservancy will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) and high-priority target weed control as outlined in the 5-year Invasive Plant Management Plan for the Coastal Reserve of the Nature Reserve of Orange County. Egyptian knapweed (*Volutaria tubiflora*), perennial pepperweed (*Lepidium latifolium*), Brazilian pepper trees (*Schinus terebinthifolius*), Pampas grass (*Cortaderia selloana*), and artichoke thistle (*Cynara cardunculus*) will constitute the primary target species.

Calflora and EDRR training for staff, contractors, and volunteers, including Newport Bay Conservancy, is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees may be removed and identified asset trees may be preventatively treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing and weed abatement, will continue.

8.3 Orange County Parks

Whiting Ranch Wilderness Park

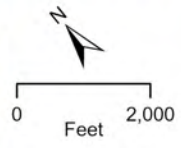


DESIGNED AND PRODUCED BY:
 OCPA
 WCPA GIS

DATA SOURCE:
 OCPA GIS; OCPA; Earthstar Geographics (Aerial Imagery)

The County of Orange and OCPA/OC Parks/Survey/GIS/ESD make no representations or warranties regarding the regulation or accuracy of the data shown within this map use derived. Further the County, nor OCPA/OC Parks/Survey/GIS/ESD shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



Orange County Parks
 Whiting Ranch
 Wilderness Park



Land Manager Name

Orange County Parks

Reporting Year

2023/2024

Park, open space or management unit

Whiting Ranch WP

Website

<http://www.ocparks.com/parks/whiting>

Land owning entity:

OC Parks

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

In 2023, Whiting Ranch Wilderness Park visitation reduced to the same level as 2021, remaining stable overall. The northwest portion of the park continued to recover from the October 2020 Silverado Fire and associated fire suppression efforts.

In 2024, OC Parks will continue invasive weed surveys and control of prioritized species, with plant population and treatment captured in Calflora.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

i. If yes, attach a PDF of the policy in the space below or provide a brief written summary

[RPRT-Closures-4.pdf](#)

Description of closure conditions and procedures.

Please see attached file:

Sec. 2-5-46 (d). Trails, trespassing and closed areas.

Sec. 2-5-215. Hours.

General practices follow:

Hours - 7:00 am to Sunset

Closures for wet and muddy conditions, as determined by staff
 Closures for localized red flag conditions, as determined by staff
 Closures following significant fires, as advised by OC Fire Authority and determined by staff

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

i. If yes, attach a PDF of the policy or provide a brief written summary in the space below

[RPRT-Competitive-Race-Events-Policy-4.pdf](#)

Description of special events use for the property.

All special event requests are subject to OC Parks permitting, which includes review by field operations, operations management, and natural resources. Permits are subject to compliance with special conditions tailored to individual events and resources within parks.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Supervising Park Ranger	1	Y
Park Ranger	1	Y
Maintenance Supervisor	1	Y
Maintenance Worker	1	Y
Maintenance Worker	1	N

3. Property Supervisor Contact Information

Name	Title	Email	Phone
2023: Candi Hubert	Supervising Park Ranger	candice.hubert@ocparks.com	
2024: Annelise Gannaway	Supervising Park Ranger	annelise.gannaway@ocparks.com	949.923.2244
Matt Major	Natural Resources Program Coordinator	matt.major@ocparks.com	657.266.4701

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

58725

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Staff estimates are generally based on parking data and trail counters.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 58,725

2022 - 62,662

2021 - 58,725

*Adjusted numbers for 2021-2022

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Observations of Sur-Ron electric bikes on park trails increased in 2023.

e. Were there any special events held for which special use permits were issued for the property?

Yes

i. Provide in the table below a summary of special events held for which special use permits were issued for the property.

Event Date	Type of Special Event	# of Participants
06/03/2023	Kemingser running event	250

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	--	--	--

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored via ranger patrols, maintenance inspections, visitor reports, and cameras/trackers. No new trail trends were observed other than an increase in Sur-Ron electric bikes.

All single-track trails received annual drainage repair, tread work, and brushing following the rainy season, and all roads were graded and brushed as needed.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Please see attached report for ISHB trapping program information and the six trap locations within the park .

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment

outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
---	--	--	--

iii. Did active management for invasive beetles occur on the property?

Yes

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

Management efforts are focused on front-country locations. Please see attached ISHB trapping information and trap placement for the park.

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[WHRA-NCCP-2023-Q2-ISHB-Trap-Monitoring-Summary.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Whiptail lizard parthenogenesis study (Natural Communities Coalition / USGS) - Continuing
Vegetation Classification update (Natural Communities Coalition) - New

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Additional Information:

OC Parks staff and volunteers will continue undertaking small-scale habitat and wildlife enhancement projects as resources permit.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Parks will continue Early Detection / Rapid Response (EDRR) and high-priority target weed control as outlined in the 5-year Invasive Plant Management Plan for the Central Reserve of the Nature Reserve of Orange County. Sahara mustard (*Brassica tournefortii*), fountaingrass (*Pennisetum setaceum*), Senecio (sp.), and stinknet (*Oncosiphon pilulifer*) will constitute the primary target species.

Calflora and EDRR training for staff, contractors, and volunteers is anticipated to continue in 2024.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

Monitoring will continue; identified amplifier trees will be removed and identified asset trees may be preventatively

treated. Adaptive management will be informed by research, monitoring data, and best practices.

Other invasive species (please describe):

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

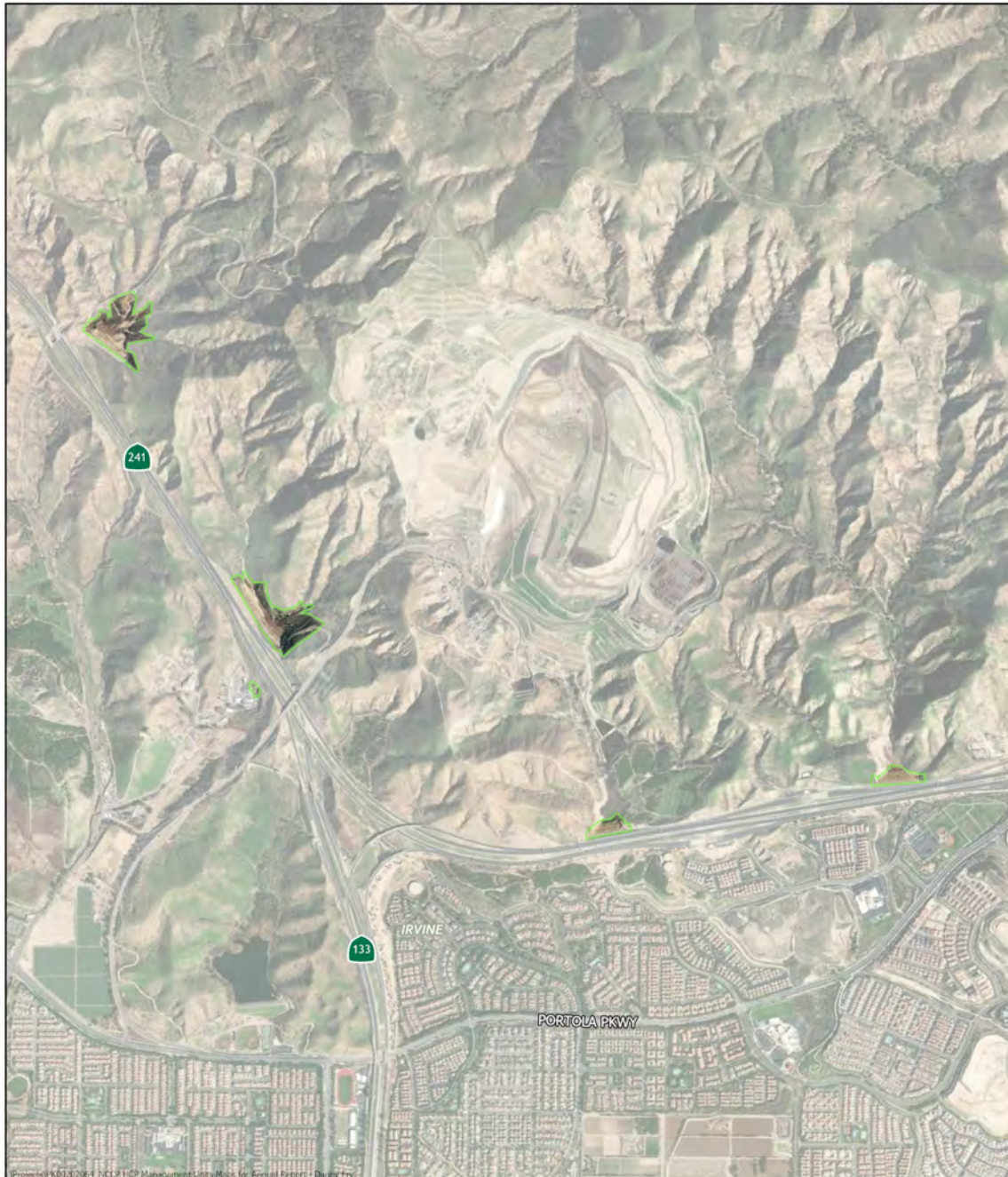
Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Existing road/trail maintenance, including vegetation brushing, and weed abatement will continue.

8.4 Orange County Public Works & Flood Control District

Orange County Public Works Projects Map 1

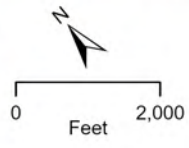


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 OC PW / OC FCD

DATA SOURCE:
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DATE: February 6, 2023

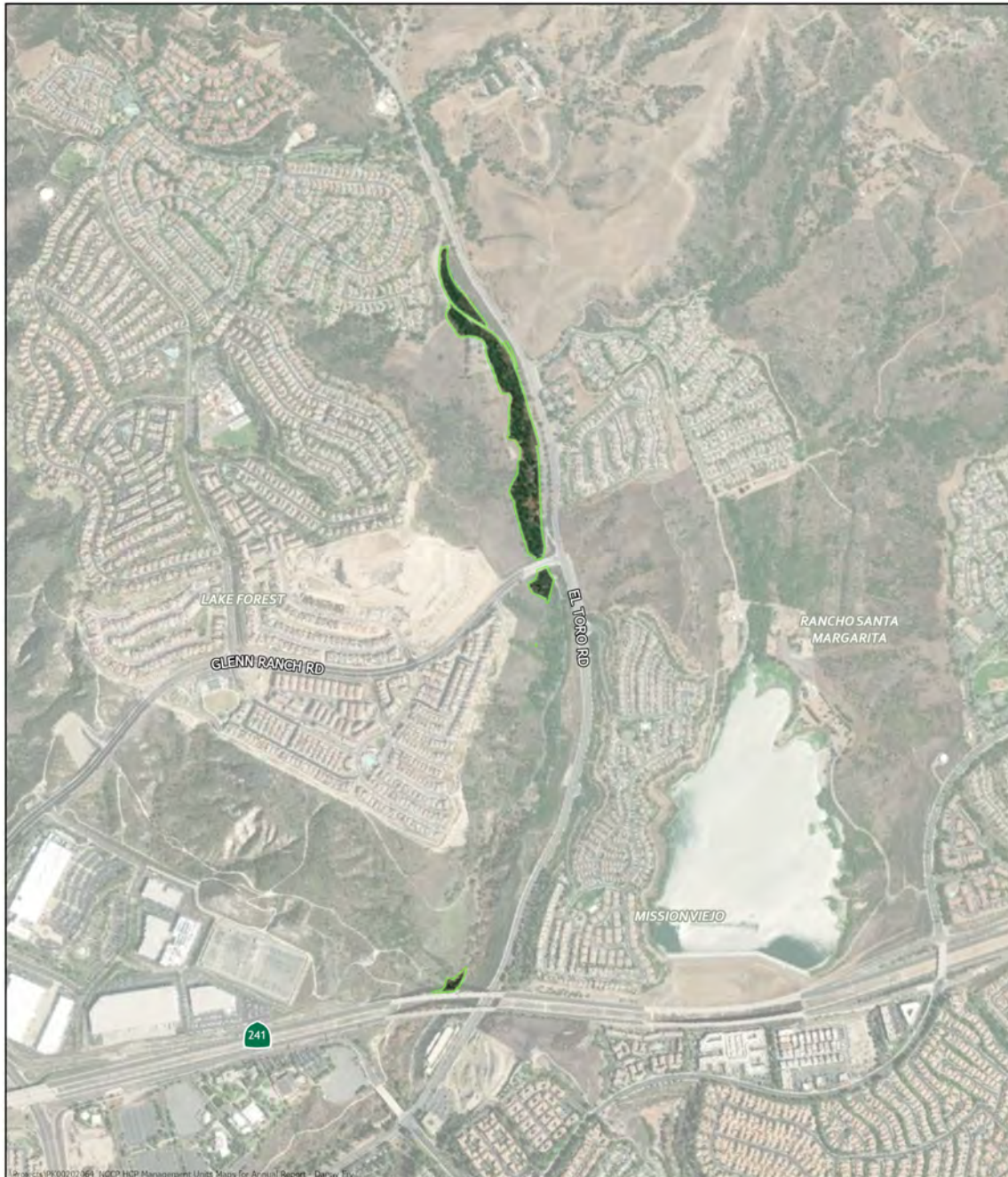


**Orange County Public Works /
 OC Flood Control District**
 Orange County
 Public Works Projects
 Map 1

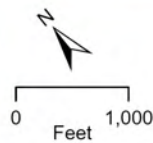


8.4 Orange County Public Works & Flood Control District

Orange County Public Works Projects Map 2



<p>DESIGNED AND PRODUCED BY: OCWR OC Parks GIS</p>	
<p>DATA SOURCE: OC Parks GIS; Earthstar Geographics (Aerial Imagery)</p> <p><small>The County of Orange and OCWR/OC Parks/Surveys/GIS/ISD make no representations or warranties regarding the regulation or accuracy of the data shown on this map, use, device, feature, the County, nor OCWR/OC Parks/Surveys/GIS/ISD shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.</small></p>	
<p>DATE: February 6, 2023</p>	

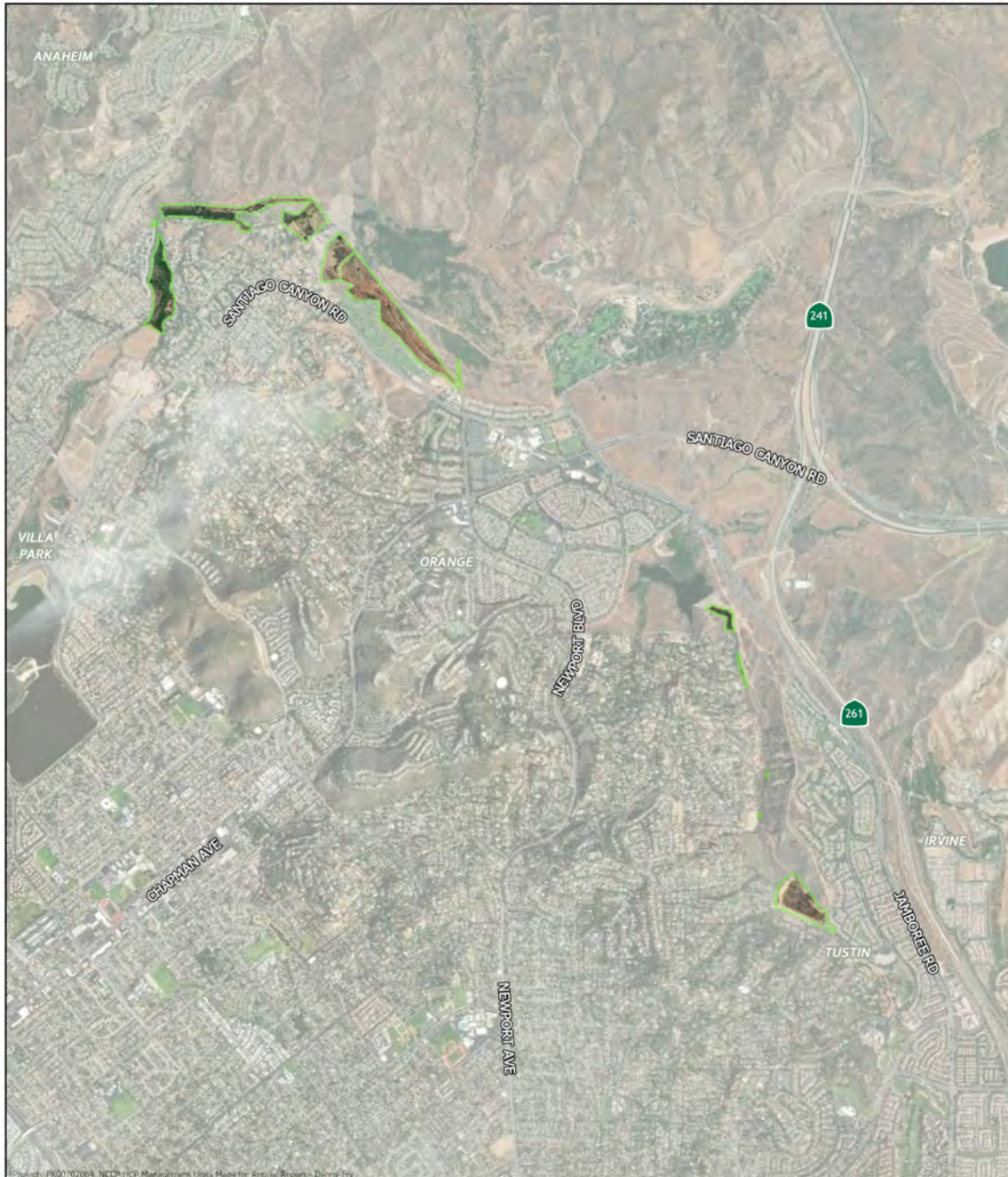


**Orange County Public Works /
OC Flood Control District**
Orange County
Public Works Projects
Map 2



8.4 Orange County Public Works & Flood Control District

Orange County Public Works Projects Map 3

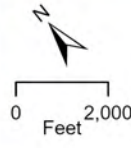


DESIGNED AND PRODUCED BY:
 OCPC
 90 Park 025

DATA SOURCE:
 OC Parks, OCPC; Earthstar Geographics (Aerial Imagery)

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DATE: February 6, 2023



**Orange County Public Works /
 OC Flood Control District**
 Orange County
 Public Works Projects
 Map 3



8.4 Orange County Public Works & Flood Control District

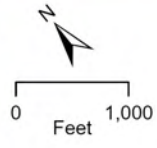
Orange County Public Works Projects Map 4



DESIGNED AND PRODUCED BY:
OCPC
OC Parks GIS

DATA SOURCE:
OC Parks, OCPC; Earthstar Geographics (Aerial Imagery)

DATE: February 6, 2023

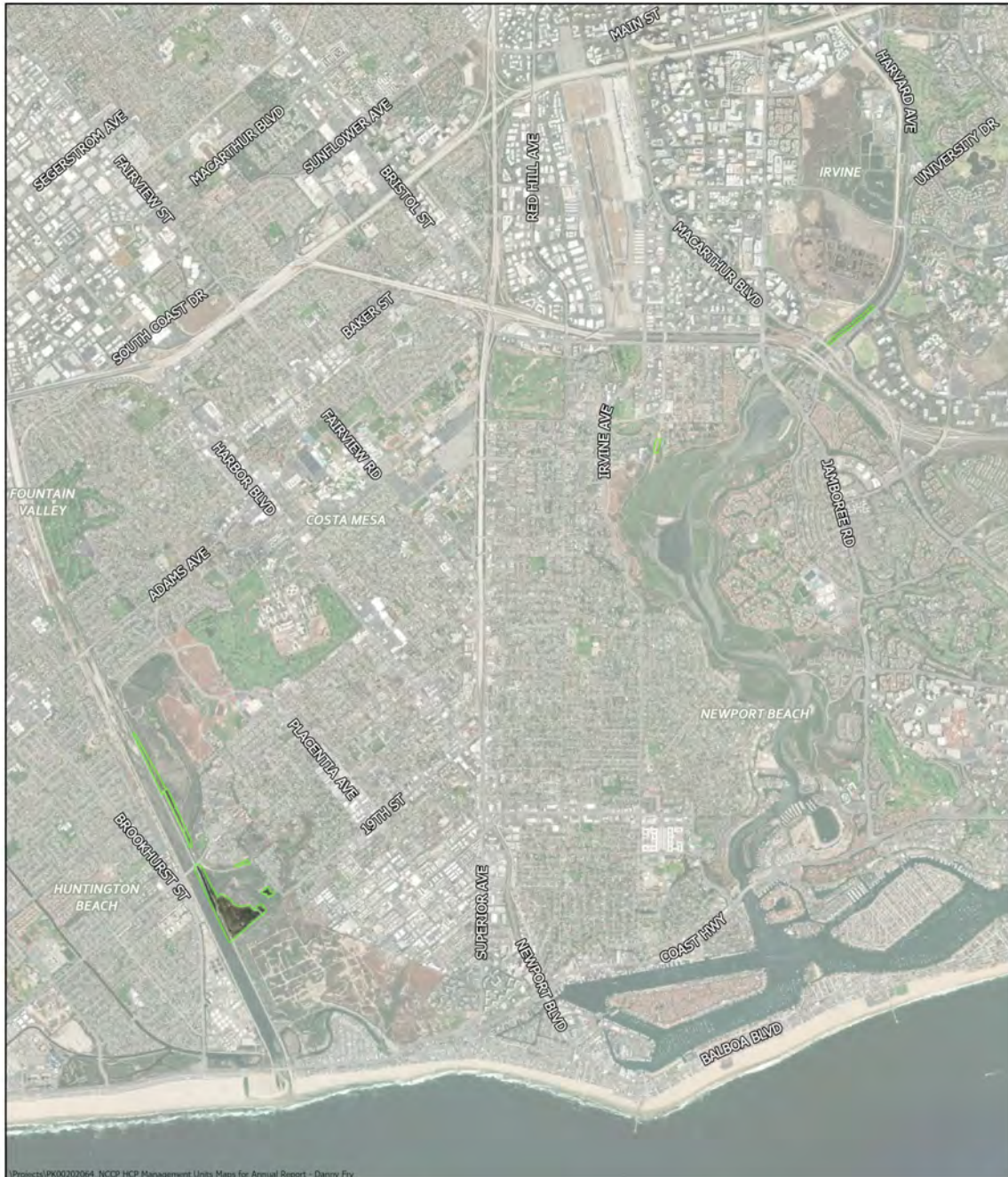


Orange County Public Works /
OC Flood Control District
Orange County
Public Works Projects
Map 4



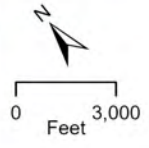
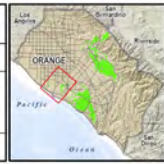
8.4 Orange County Public Works & Flood Control District

Orange County Public Works Projects Map 5



\\Products\PK00202064_NCCP HCP Management Units Maps for Annual Report - Danny Fry

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DATA SOURCE: OC Parks, OCWR, Earthstar Geographics (Aerial Imagery)
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DATE: February 6, 2023



**Orange County Public Works /
OC Flood Control District**
Orange County
Public Works Projects
Map 5



Land Manager Name

OC Public Works

Reporting Year

2023/2024

Park, open space or management unit

OCPW

Website

<http://www.ocpublicworks.com/>

Land owning entity:

OC Public Works/OC Flood Control District

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

OC Public Works actively manages six compensatory mitigation sites in the NCCP Reserve, all on OC Parks land. OC Public Works used 0.086 acre of take in 2023 for vegetation impacts related to geotechnical drilling at the Villa Park Dam Spillway. OC Public Works anticipated using 1.33 acres of take in the Laguna Coastal Streams watershed for a joint road project [SR-133] with Caltrans in 2020; however, construction of that project continues to be delayed. This anticipated take will roll over to 2024 in addition to the Peter's Canyon Bikeway project which is still in the design and permitting phase (anticipated take will be 0.77 acre) .

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

Yes

Description of special events use for the property.

OC Flood Control District property is not accessible to the public. Any access by contractors wishing to perform work within District property is subject to provision of an encroachment permit per Orange County, California Code of Ordinances (Title 9 - Water Quality--Orange County Flood Control District / Division 2 --Encroachments).

With regard to District-owned lands in the NCCP Reserve, tracking of take impacts is the responsibility of OC Public Works/Environmental Resources - Mitigation Program. Encroachment permits authorizing access to District lands is tracked by OC Public Works/ Development Services - Permitting.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Manager, Mitigation Program	1	.05

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Jennifer Shook	Manager, Mitigation Program	Jennifer.Shook@ocpw.ocgov.com	(714) 955-0615

B. Visitation

a. Total number of public visitors to the property based on lan owner's estimate:
Undocumented.

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

OC Flood Control District property is not accessible to the public. Any access by contractors wishing to perform work within District property is subject to provision of an encroachment permit per Orange County, California Code of Ordinances (Title 9 - Water Quality--Orange County Flood Control District / Division 2 --Encroachments).

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

Not applicable.

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Not applicable.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
00/00/0000	Not applicable		

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Some flood control access/service trails are used for passive recreation (walking/hiking/biking). Monitoring of access and service roads to/along/around District flood control channels and basins is conducted by OC Public Works - Operations & Maintenance Department.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Villa Park Dam Spillway - Geotechnical Investigation

Start Date

2023-09-15

End Date

2024-10-15

Was facility identified in an applicable GDP or RMP?

No

Coordination with NCC?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
CSS and Laurel Sumac Scrub	0.086

Nature of Impact: Temporary (# of Acres)

0.086

Restoration Actions Taken?

Yes

Please describe the actions taken or justify why no such actions were taken

To mitigate for impacts, OCPW implemented passive restoration through hand broadcasting of seed in the areas that did not bounce back after mowing or fine grading. However, in lieu of a revegetation maintenance and monitoring plan, OC Public Works opted to claim take credits for the temporary impacts.

Documentation: Reports, Notes, Photographs (Provide Reference)

- [Re_-EXTERNAL-Villa-Park-Dam-Spillway-temporary-vegetation-impacts-USFWS-concurrence.pdf](#)
- [Villa-Park-Dam-Spillway-Borings-Letter-to-Wildlife-Agencies.pdf](#)

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Lower Peters Canyon Reservoir Rotational Maintenance and Revegetation

Mitigation

No

Riparian Community Acres

9.634

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2023-09-15

Anticipated End Date

2033-09-15

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

OC Public Works

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on

the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Partially

i. If no or partially, please complete the table below:

Treatment Methodology	Invasive Plant Name	Habitat(s) Impacted	Area of Treatment (Square Meters)
Synthetic Herbicide	Oncosiphon pilulifer	riparian scrub	8000
Synthetic Herbicide	Lepidium latifolium	riparian scrub	8000

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

OC Public Works road infrastructure and OC Flood District drainage infrastructure lies mostly outside of the Reserve areas. However, OC Agricultural Commissioners office is using State funding to identify and survey invasive shot hole borer throughout Orange County, including areas within the NCCP in support of the State program (these surveys also include private property).

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

OC Public Works road infrastructure and OC Flood District drainage infrastructure lies mostly outside of the Reserve areas. The few small areas of property within the Reserve are monitored for potential invasive beetle impacts during ongoing routine maintenance and trees that pose a threat to public safety or have the potential to impede flood flows are removed. OC Public Works does manage mitigation sites on OC Parks property within the Reserve and monitor for invasive beetle activity. If we identify a growing problem, as signaled by branch or tree-die back, formal surveys or control strategies will be initiated .

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Access roads

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

33.582694, -117.761047

Impact Size

1.33 acre

Habitat Type

CSS

Identify any project lead(s) (i.e., utility, government department):

Caltrans
OC Public Works

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

33.784712, -117.758715

Impact Size

0.77 acre (Class 1 bikeway along Jamboree Road)

Habitat Type

CSS

Identify any project lead(s) (i.e., utility, government department):

OC Public Works (design lead)
OC Parks
Caltrans (Federal Partner since federal funds will be used)

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

OC Public Works mitigation program conducts invasive control as part of our routine maintenance of mitigation sites. Work is minimal as most of our sites are fairly well established with little non-native seed back by this point.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Other invasive species (please describe):

OC Public Works Agricultural Commissioner's office handles invasive species control for unincorporated property and OC Flood Control District.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

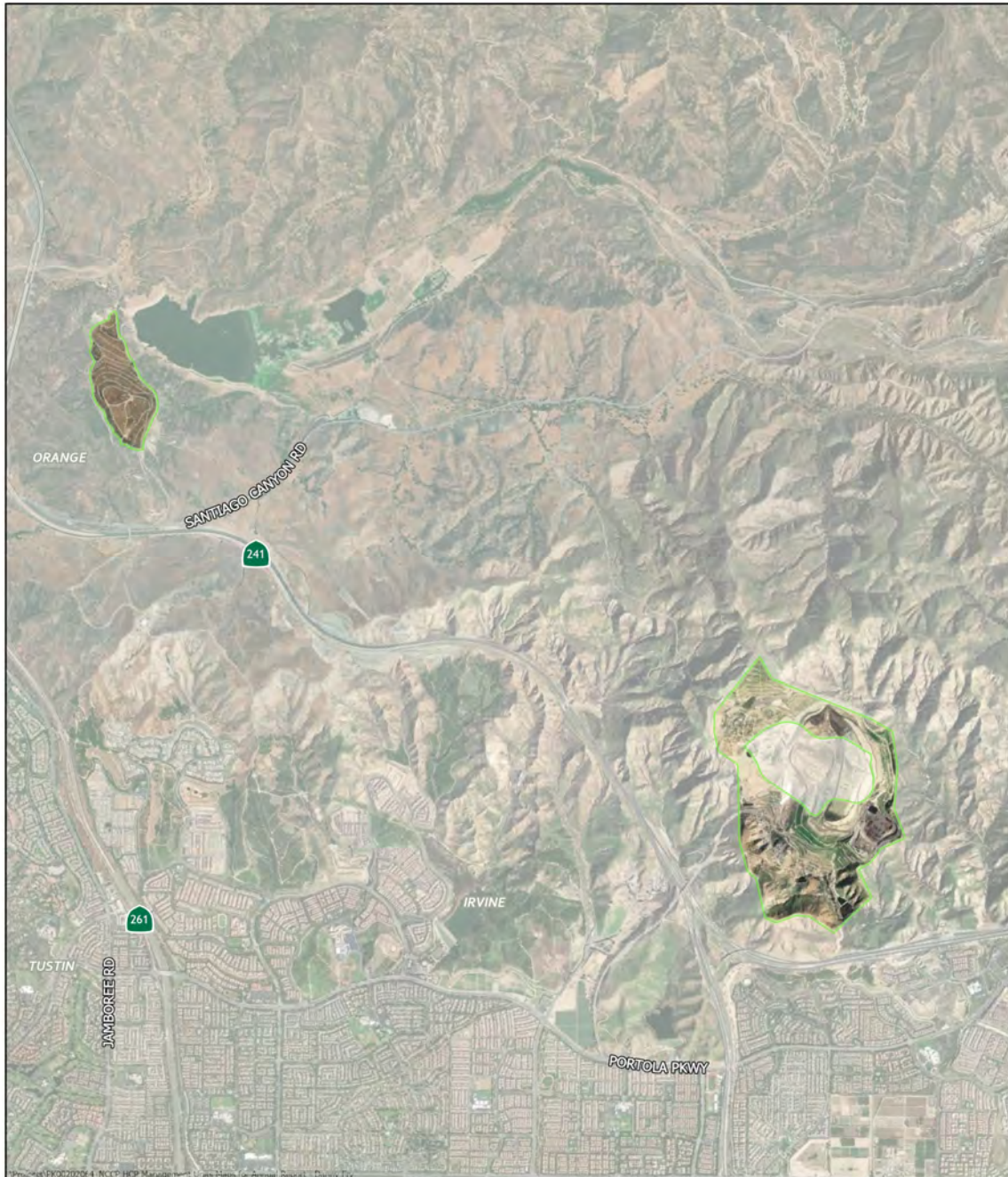
No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.5 Orange County Waste and Recycling

Orange County Waste and Recycling

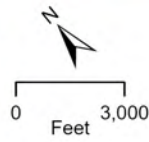


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 DCCB
 90 Park St

DATA SOURCE:
 OC Parks, OCPR, Earthstar Geographics (Aerial Imagery)

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DATE: February 6, 2023



**Orange County
 Waste and Recycling**



Land Manager Name

OC Waste Recycling

Reporting Year

2023/2024

Park, open space or management unit

OCWR

Website

<https://oclandfills.com>

Land owning entity:

County of Orange, Waste & Recycling

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

Within the Central/Coastal NCCP, OCWR has one active landfill and three managed closed landfills with sensitive habitat or proximity to sensitive habitat and the reserve. They include Frank R. Bowerman (FRB) Landfill, Santiago Canyon Landfill, Gothard Landfill, and Coyote Canyon Landfill. In 2023, FRB Landfill continued construction of Phase 8A-1 of landfill development and impacted coastal sage scrub (css) vegetation. Existing fuel modification on FRB Landfill was expanded around new office structures, impacting css. In addition to the FRB Landfill Wetland mitigation project, OCWR also directs two mitigation projects on OCParks property, located in Santiago Oaks Regional Park and Agua Chinon,

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Both Open and Hosted Limited Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Sr. Environmental Resource Specialist	1	100%
CEQA & Habitat Program Manager	1	100%

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Tom Koutroulis	OCWR Director	Tom.Koutroulis@ocwr.ocgov.com	714-834-4122
David Tieu	Central Region Deputy Director	David.Tieu@ocwr.ocgov.com	949-551-7102
Hany Ahmed	South Region Deputy Director	Hany.Ahmed@ocwr.ocgov.com	949-728-3043
Jorge Hernandez	North Region Deputy Director	jorge.hernandez@ocwr.ocgov.com	714-986-2391

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

185000

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

18 visitors in open spaces areas in 2023.

In 2023, an estimated 185,000 visitors have deposited trash, attended fundraisers, toured, and picked up compost/mulch on the landfill. On average 600 vehicles utilize the landfill, 6 days a week, minus holidays. 600 vehicles (6 days x 52 weeks-6 holidays) = 183,600 trash visitors. 183,600+ 1,400 miscellaneous visitors = 185,000 total visitors.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

The landfills have low visitor numbers in open space, which is consistent with numbers listed as 0 visitors in 2017, 2018, 2019, 2020, and 2021. 2022 had 25 visitors to open space areas.

The 185,000 landfill visitors accessed the landfill's developed areas.

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	N/A	N/A	0

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

No pedestrian hiking trails are open to the public on landfills located in Central/Coastal NCCP. Roads on the landfills are inspected regularly for erosion, overgrown vegetation, and are graded with a dozer or dirt grader

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

FRB Landfill Phase VIIIA-1 Landfill construction

Start Date

2023-07-25

End Date

2023-07-25

Was facility identified in an applicable GDP or RMP?

Yes

Coordination with NCC?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
Coastal Sage Scrub	0.48

Nature of Impact: Permanent (# of Acres)

0.48

Restoration Actions Taken?

No

Please describe the actions taken or justify why no such actions were taken

The area was monitored for nesting birds leading up to vegetation removal. Nesting activity was still present on July 15, therefore construction was delayed to July 25. Limits of vegetation removal were demarcated and monitored during removalwork.

Documentation: Reports, Notes, Photographs (Provide Reference)

- [Phase-VIIIA-1-drainage-4.jpg](#)

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

FRB Wetland Basin Mitigation Permit; CDFW permit 1600-2005-0735-R5; USACE and RWQCB SPL-2006-212-CJF

Mitigation

Yes

Riparian Community Acres

1.60

Other Restoration Community Acres

2.74

Other Restoration Community Type

2.74 wetland

If this is a formal restoration plan, please provide the name:

Habitat Mitigation and Monitoring Plan: Frank R. Bowerman Landfill Wetlands

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2013-02-01

Anticipated End Date

2026-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

No

Project Lead

Land owner

Mitigation

Yes

Other Restoration Community Acres

2.5

Other Restoration Community Type

Chaparral

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2018-11-18

Anticipated End Date

2025-11-30

Performance Monitoring

Yes

Data Archived in GIS Database

No

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Loma Ridge Landslide Remediation Chaparral Restoration

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

7.5

If this is a formal restoration plan, please provide the name:

OCWR Project for Habitat Restoration of the BFI Site Crystal Cove State Park

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2020-07-01

Anticipated End Date

2030-07-01

Performance Monitoring

Yes

Data Archived in GIS Database

No

Project Lead

Third party

Mitigation

Yes

Riparian Community Acres

17.1

If this is a formal restoration plan, please provide the name:

OCWR Agua Chinon Restoration Project

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2013-09-03

Anticipated End Date

2024-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

IRC

Project Lead

Third party

Mitigation

Yes

Woodland Community Acres

5

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2011-01-30

Anticipated End Date

2026-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

No

If this is a formal restoration plan, please provide the name:

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Partially

i. If no or partially, please complete the table below:

Treatment Methodology	Invasive Plant Name	Habitat(s) Impacted	Area of Treatment (Square Meters)
Synthetic Herbicide	Oncosiphon piluferum	CSS and riparian	100

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

No surveys were performed on closed sites: Santiago Canyon Landfill, Coyote Canyon Landfill, or Gothard Landfill. A limited number of beetle host species occur on these sites.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

SHB and GSOB surveyed on FRB Landfill.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

Yes

Project Number Referenced on the Map

6.01 Surrounding FRB office areas

Coordination with NCC (i.e., discussion and/or plan review)

No

Habitat Type(s) in Which Modification Occurred

- CSS

General Description of Fuel Modification Technique Employed

- Pruning/thinning
- Shrub matrix/remove dead material

Approximate Area Treated in Acres

7

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

Maintenance

Project Number Referenced on the Map

6.01 new fuel modification for expansion of FRB office areas

Coordination with NCC (i.e., discussion and/or plan review)

No

Habitat Type(s) in Which Modification Occurred

- CSS
- Chaparral

General Description of Fuel Modification Technique Employed

- Pruning/thinning
- Shrub matrix/remove dead material

Approximate Area Treated in Acres

0.5

Management Action Consistent with Stakeholder Guide (WFMP)

Yes

New Fuel Management Treatment or Maintenance of Existing

New

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Landfill gas recovery facilities
- Monitoring wells and maintenance facilities
- Other

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

FRB Landfill construction activities and landfill gas recovery facility

Impact Size

3

Habitat Type

CSS

Identify any project lead(s) (i.e., utility, government department):

OCWR, contact Aimee Halligan Habitat manager at aimee.halligan@ocwr.ocgov.com or FRB project manager Kevin Hanson at kevin.hanson@ocwr.ocgov.com

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

tamarix (Tamarix sp.) herbicide treatment and remove material

stink net (Oncosiphon pilulifer) herbicide treatment

black mustard (Brassica nigra) herbicide treatment and remove material

fountain grass (Pennisetum setaceum) herbicide treatment at Santiago Canyon Landfill

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Expansion of fuel modification surrounding FRB Landfill office buildings.

Maintenance of existing fuel management to be undertaken within the reserve?

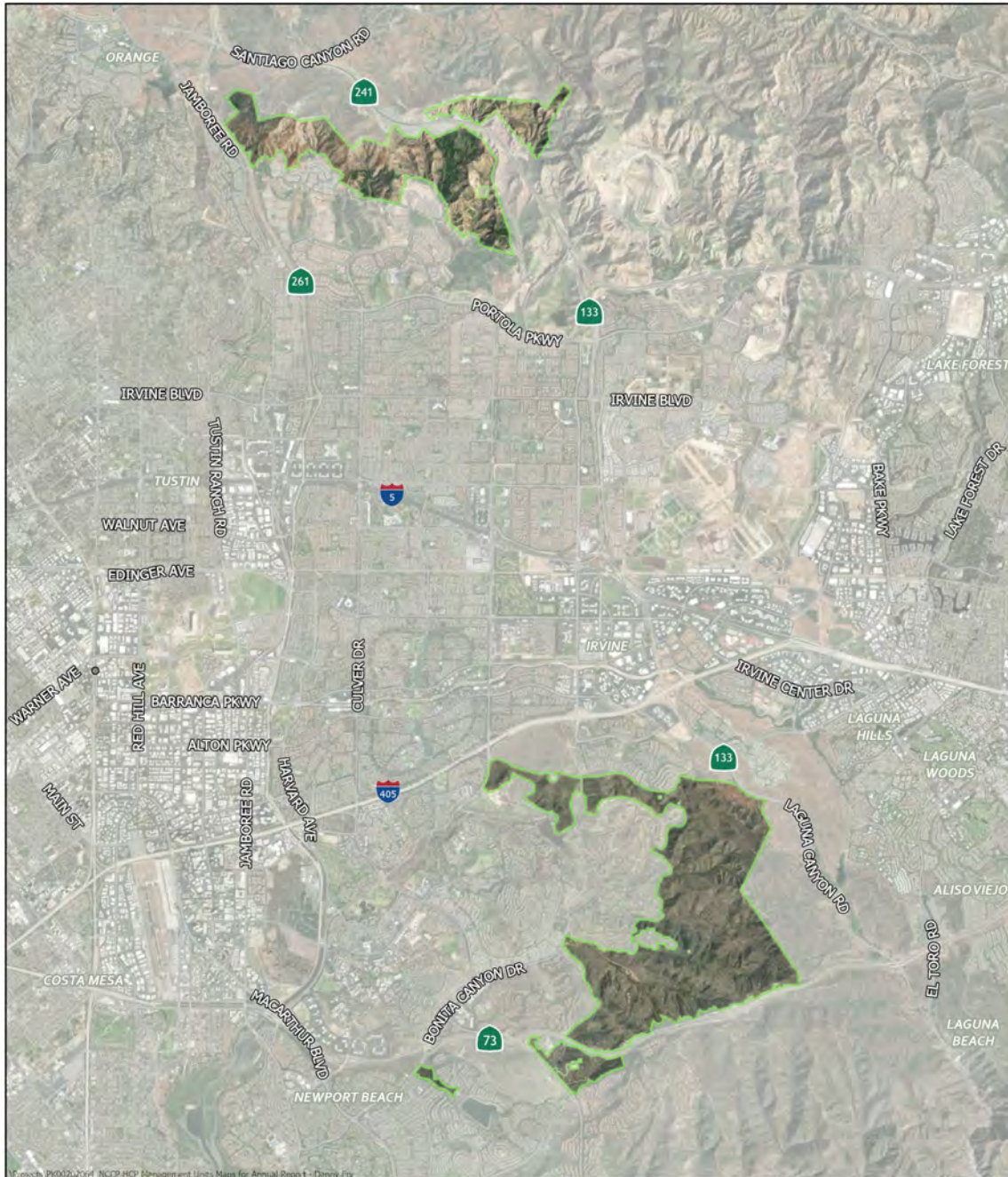
Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

Maintenance of fuel modification areas surrounding FRB occupied structures, flare station, and fuel tanks.

Maintenance of fuel modification surrounding the Coyote Canyon Landfill fare station.

8.6 City of Irvine Open Space Preserve



<p>DESIGNED AND PRODUCED BY: DOCK RE:R&S GIS</p> <p>DATA SOURCE: OC Parks, OCPI, Barristar Geographics (Aerial Imagery)</p> <p><small>The County of Orange and OC Parks/OCPI Parks/Surveys/GIS/ISD make no representations or warranties regarding the regulation or accuracy of the data shown within this map user interface. Further, the County, our OCPI/OC Parks/Surveys/GIS/ISD shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.</small></p> <p>DATE: February 6, 2023</p>	
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City of Irvine
Open Space Preserve



Land Manager Name

Irvine Ranch Conservancy

Reporting Year

2023/2024

Park, open space or management unit

City of Irvine

Website

<https://letsgooutside.org>

Land owning entity:

City of Irvine

Land managing entity if different from above:

Irvine Ranch Conservancy

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

The City of Irvine Open Space Preserve received approximately 4,718 visitors for guided activities in 2023. However, data from a trail counter placed at West Fork indicate similarly high levels of self-guided access as first observed in 2020, which was four-to-five times that estimated in 2019.

Regular annual inspections were conducted to assess erosion and vegetation encroachment within the designated trail system. Routine post-winter trail repairs were performed, and regular quarterly vegetation trimming was performed.

Trail width and trailside vegetation quality are monitored yearly, and there has been no significant change in trail width over time. Trail conditions are monitored continuously, and maintenance occurs as needed. A new fuel modification/habitat restoration project was initiated in the Bommer Canyon Preserve in 2023. Surveys and control of both invasive plant species and invasive beetles are ongoing and will continue in 2024.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Both Open and Hosted Limited Access

b. Is there an official written policy governing property closure conditions and procedures?

Yes

Description of closure conditions and procedures.

Irvine Ranch Conservancy (IRC) will be responsible for monitoring conditions in the Open Space Preserve, facilities, and trails, and will use its best judgment, experience, and knowledge of Best Management Practices to determine when the Open Space Preserve or parts of the Open Space Preserve should be temporarily closed (including consideration of whether adjacent open space areas are closed or open). IRC will immediately inform the Director of Community Services and other designated staff, the Open Space Patrol, and City staff in Bommer Canyon via email or text message of the need to temporarily close certain areas. Because of the timely nature of most temporary closures, the City shall respond within one hour of receipt of such messages should it disagree with or require clarification of IRC’s intent to close facilities. In the absence of a response, IRC will proceed with temporary closure.

IRC will also inform adjacent land managers of the closure and coordinate with them on closure activities on daily-access trails. The City Public Safety Department and Open Space Patrol may also initiate closure of the Open Space Preserve or facilities for police investigations, search and rescue, and other special events related to public safety. The City’s responsibilities regarding temporary closure and re-opening of trails and/or facilities includes deploying City staff to close the main gates and parking areas at trailheads, placing/removing temporary closure barriers at Bommer Canyon Trailhead, Quail Hill Trailhead and any other mutually agreed upon access locations, and assisting IRC in executing the temporary closure when needed and requested. IRC will supply temporary closure signs/barriers as well as create and install seasonal information signs that reference a phone number the public can use to obtain updated closure/re-opening information. Public activities led by IRC that are cancelled due to trail conditions will have a cancellation notice posted with the activity on the website, and all registered participants will be notified by email. The City will enforce terms and conditions of each temporary closure through its Open Space Patrol and Public Safety personnel.

IRC will maintain a telephone hotline with a local or toll-free number for the public to obtain information on any closures and re-opening schedule. The hotline number will be displayed on informational and temporary signage to aid the public in understanding the closure.

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

Yes

Description of special events use for the property.

The City is responsible for processing and administration of special use permits, special event permits, and other access permit requests upon review by IRC for compliance with the NCCP and applicable Recreation and Resource Management Plans. These include but are not limited to individual permits for such activities as photography shoots, recreational or exercise programs, special events in Bommer Cattle Camp that extend into the open space, and other access authorized or managed by the City, which will be coordinated with the IRC.

All permits will include access notification requirements for the permit holder which will include notification to the email access@irconservancy.org. After permits have been issued, IRC will coordinate notification of permitted access activities by the permit holder with appropriate City staff, City Permits Office, and Open Space Patrol rangers. IRC maintains and will continue to maintain an email address (access@irconservancy.org) where advance notification of access to the Preserve by permit holders can be posted and distributed electronically to relevant individuals including City staff.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Parks & Open Space Administrator	1	1
Community Services Manager	1	1
Open Space Ranger	1	1

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Casey Gnadt	Parks & Open Space Administrator	cgnadt@cityofirvine.org	949-724-7621
Kristin Auer	Community Services Manager	kauer@cityofirvine.org	949-724-7462
Dave Cardon	Open Space Ranger	dcardon@cityofirvine.org	949-724-7000

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

4718

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

IRC manages the website www.LetsGoOutside.org, which promotes public access activities in the City of Irvine Open Space Preserve and the Irvine Ranch Natural Landmarks and is used to manage public activity registration, manage volunteer assignments, obtain public participant feedback, and automate reporting functions for activities. The registration system that IRC maintains on behalf of the City allows the public to easily find and sign up for offered activities online. Once an individual completes registration for an activity, they receive an automated confirmation e-mail with a map to the location and additional instructions specific to the activity (clothing, trail conditions, etc.). The registered individual's information is also auto-populated into a Release of Liability Waiver that the volunteer or staff member leading the activity can print in advance. The pre-printed document is used both as the sign-in sheet and the Release of Liability Waiver, streamlining the sign-in process and minimizing the time before the event can commence.

After the activity, the leader returns to the website to fill out an online post-activity report form. This form confirms each participant's attendance in the database. Website functionality includes activity reports that are used to provide quarterly attendance reports, volunteer service hours, numbers of volunteers, number of activities, and other information to the City as well as for NCCP reporting. Guided activity visitor numbers are reported to the landowner on a quarterly basis.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 4,718 visitors
2022 - 4,344 visitors
2021 - 3,220 visitors

These numbers are higher than previously reported due to a change in how visitation is quantified. Previously, activity leads would submit maps that were used to determine access to the Reserve. This information is no longer collected, so numbers from the previous two years were likely underestimates.

Note that these numbers are only for guided activities and do not reflect the increase in self-guided access first observed in 2020. Data from a trail counter placed at West Fork indicate a four-to five-fold increase in activity since 2020 compared to 2019 (approximately 39,216 in 2023, 50,000 in 2022, 39,524 in 2021, 41,913 in 2020, and 8,046 in 2019).

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
Various Dates	Trail Short-Cutting	Black Mustard	Less than 500 sq ft.

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Trail conditions are monitored regularly throughout the year and after any significant rainfall event (>0.25"), and maintenance occurs within the limits of the trail tread as needed. Annual preventative maintenance occurs during the months of September through November and includes, but is not limited to, filling rills and ruts, implementing industry-standard natural surface erosion control measures (grade dips, grade reversals, grade nicks, etc.), trail armoring, and sediment removal from existing erosion control features. Vegetation trimming occurs between August 15th and February 15th and is limited to maintenance of the scheduled trail widths per the approved RRMP. No trails were observed to have excessive erosion that required any maintenance beyond the routine anticipated annual post-winter repairs.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Third party

Mitigation

No

CSS Community Acres

14

If this is a formal restoration plan, please provide the name:

Bommer Canyon Habitat Restoration Plan

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2018-08-20

Anticipated End Date

2027-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

No

CSS Community Acres

32.7

Other Restoration Community Acres

9.6

Other Restoration Community Type

Annual grassland enhancement

If this is a formal restoration plan, please provide the name:

Fire Prevention, Fuel Modification, and Restoration at Bommer Canyon Preserve

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2023-05-01

Anticipated End Date

2026-03-01

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Invasive shothole borer is known to occur in the City of Irvine Open Space Reserve, so surveys are conducted annually to determine if management is needed.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment

outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Black Willow	ISHB	Bommer Canyon	2
Arroyo Willow	ISHB	Bommer Canyon	8
Sycamore	ISHB	Bommer Canyon	3
Sycamore	ISHB	Shady Canyon	3

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

All infested trees that were surveyed are of low-to-moderate severity without dieback, so no management action was recommended.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Trail condition monitoring is being revised to capture larger trail segments and to incorporate drone imagery to provide more information. There is ongoing long-term vegetation monitoring as well as monitoring and research related to wildlife, invasive tree pests, and western pond turtle.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

What is the nature of the anticipated construction or maintenance project? (Check all that apply)

- Trails

Location where above work is proposed to take place? (GPS approximate center of project location and record below):

Orchard Hills Upper Loop Trail - The October 2020 fires damaged the Orchard Hills trail system. Post-fire cleanup included felling of damaged Eucalyptus windrow trees. Approximately 72 severely damaged trees were felled across the existing Upper Loop segment approximate start location 33.745115760174635, -117.7439983852915 / end location 33.74773102155344, -117.74132600017117. Re-establishment of the existing trail requires realignment approximately 80 to 100 feet east of the existing damaged/abandoned trail. The realignment will encompass approximately 1,382 lineal feet of 4' wide natural surface outside of the tree impact zone.

Impact Size

.12 acres

Habitat Type

Mixed Rudural Species

Identify any project lead(s) (i.e., utility, government department):

Adam J. Maywhort, Director-Planning & Infrastructure

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

IRC will continue to monitor and treat priority invasive plants and report the results in Calflora.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

IRC will continue to monitor ISHB in Bommer Canyon and Shady Canyon and recommend action as needed.

Other invasive species (please describe):

Invasive amphibians crayfish are monitored as part of annual western pond turtle population assessments.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.7 City of Newport Beach

Buck Gully Preserve

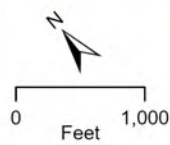
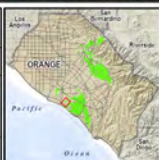


DESIGNED AND PRODUCED BY:
DCCA
R. Parks GIS

DATA SOURCE:
DCCA/OC/OCIR: Barrister Geographics (Aerial Imagery)

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DATE: February 6, 2023



City of Newport Beach
Buck Gully Reserve



Land Manager Name

Irvine Ranch Conservancy

Reporting Year

2023/2024

Park, open space or management unit

Newport Beach

Website

<https://letsgooutside.org>

Land owning entity:

City of Newport Beach

Land managing entity if different from above:

Irvine Ranch Conservancy

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

The Buck Gully trail received approximately 55,302 visitors in 2023 based on trail counter data and participation in guided activities.

Regular annual inspections were conducted to assess erosion and vegetation encroachment within the designated trail system. Routine post-winter trail repairs were performed, and regular quarterly vegetation trimming were performed. Planned maintenance for 2023 will include additional trail-tread hardening.

In 2023, maintenance and monitoring activities were performed on the illegal trail cut that occurred in 2019. Site preparation continued on a 1.5-acre restoration and a 1.4-acre site.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

Yes

Description of closure conditions and procedures.

Cancellation of public activities and temporary closure of access to trails and roads will occur consistent with the

applicable RRMPs, NCCP terms and conditions, and other deed restrictions and in connection with significant events, including but not limited to: National Weather Service Red Flag Warnings (or other high wind/high fire-risk periods); active fire; wet or muddy conditions; earthquake; damage due to inappropriate or unauthorized use; or any other event deemed a threat to the Buck Gully Reserve or public safety.

IRC will be responsible for monitoring conditions in the Buck Gully Reserve, facilities, and trails and will use its best judgment, experience, and knowledge of Best Management Practices to determine when the Reserve or parts of the Reserve should be temporarily closed (including consideration of whether adjacent open space areas are closed or open). IRC will immediately inform the designated City staff and the Park Patrol via email or text message of the need to temporarily close as well as the re-opening of certain areas. The City Public Safety Department and Park Patrol may also initiate closure of the Buck Gully Reserve or facilities for police investigations, search and rescue, and other special events related to public safety.

The City’s responsibilities regarding temporary closure and re-opening of trails and/or facilities include deploying City staff to close or re-open the trailheads, placing/removing temporary closure barriers at trail entrances located at 5th and Poppy Avenues, along San Joaquin Hills Road and any other mutually agreed upon access locations, and assisting IRC in executing the temporary closure when needed and requested. IRC will supply temporary closure signs/barriers to be used by Park Patrol staff during temporary closures. Public programs led by IRC that are cancelled due to trail conditions will have a cancellation notice posted with the activity announcement on the website (see Communications Section for discussion of the website), and all registered participants will be notified by email. The City will enforce terms and conditions of each temporary closure through its Park Patrol and Public Safety personnel.

ii. Has the policy been officially modified since the previous year’s annual report?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Recreation and Senior Services Director	1	.9
Park Patrol Ranger	1	.25

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Sean Levin	Recreation and Senior Services Director	slevin@newportbeachca.gov	949-644-3149
Justin Schmillen	Deputy Director of Recreation and Senior Services	jschmillen@newportbeachca.gov	949-644-3160

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

55302

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Trail counter data indicated there were 54,774 visitors in addition to 258 participants in Irvine Ranch Conservancy (IRC) volunteer-led activities (see below). Please note that trail counters cannot distinguish individual users and may be triggered by vegetation, so those data are a relative measure of use each year.

IRC manages the website www.LetsGoOutside.org, which promotes public access activities in the Buck Gully Reserve and Irvine Ranch Natural Landmarks and is used to manage public activity registration, manage volunteer assignments, obtain public participant feedback, and automate reporting functions for activities. The registration system that IRC maintains on behalf of the City allows the public to easily find and sign up for offered activities online. Once an individual completes registration for an activity, they receive an automated confirmation e-mail with a map to the location and additional instructions specific to the activity (clothing, trail conditions, etc.). The registered individual's information is also auto-populated into a Release of Liability Waiver that the volunteer or staff member leading the activity can print in advance. The pre-printed document is used both as the sign-in sheet and the Release of Liability Waiver, streamlining the sign-in process and minimizing the time before the event can commence. Information is collected and utilized in accordance with the City of Newport Beach Personal Information Privacy Act.

After the activity, the leader returns to the website to fill out an online post-activity report form. This form confirms each participant's attendance in the database. Website functionality includes activity reports that are used to provide quarterly attendance reports, volunteer service hours, numbers of volunteers, number of activities, and other information to the City as well as for NCCP reporting. Guided activity visitor numbers are reported to the landowner on a quarterly basis.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2023 - 55,302 visitors

2022 - 68,201 visitors

2021 - 66,520 visitors

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No. Presence of e-bike users on the one-way trail system was noted in 2020.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
None			

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Qualitative trail monitoring occurs throughout the year and after any significant rainfall event (>0.25"). Trail damage is reported to IRC's Infrastructure team, and issues are addressed as soon as possible. Trails are monitored regularly throughout the year, and maintenance occurs within the limits of the trail-tread as needed. Annual preventative maintenance occurs from September through November and includes, but is not limited to, filling rills and ruts and implementing industry-standard natural surface erosion control measures (grade dips, grade reversals, grade nicks, etc..). Trail armoring continues to be a key maintenance component for the year-round wet conditions due to upslope runoff. Vegetation trimming occurs between August 15th and February 15th and is limited to maintenance of the scheduled trail widths per the approved RRMP. No trails were observed to have excessive erosion that required any maintenance beyond the routine anticipated annual post-winter repairs.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

Yes

Facility & Location

Buck Gully Trail Segment from San Joaquin trailhead to 5th & Poppy trailhead.

Start Date

2023-09-15

End Date

2023-10-30

Was facility identified in an applicable GDP or RMP?

Yes

Impacts: Habitats or Sensitive Species

Type	Amount (Acres)
No Habitat Impacts	

Coordination with NCC?

No

Restoration Actions Taken?

Yes

Please describe the actions taken or justify why no such actions were taken

Approximately 4,300 lineal feet of the existing Buck Gully trail received tread hardening, additional erosion control

features, and trail-side post and cable fencing to deter off-trail uses. Hardening was performed with a combination of grading/re-contouring of the existing trail tread and amending the existing trail tread with a mix of "GeoGrid" turf mats and/or engineered class II base in selected areas.

Documentation: Reports, Notes, Photographs (Provide Reference)

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

3.1

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2020-02-01

Anticipated End Date

2029-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

If this is a formal restoration plan, please provide the name:

Buck Gully CSS Restoration - Sandcastle and Bobcat Tracts, Buck Gully Unauthorized Trail Restoration and Maintenance Project - Isabella, Buck Gully Unauthorized Trail Restoration and Maintenance Project - Castlecove

Project Lead

Third party

Mitigation

No

CSS Community Acres

1.5

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2020-11-01

Anticipated End Date

2023-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

No

CSS Community Acres

1.4

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2021-01-08

Anticipated End Date

2028-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

Yes

If surveys were not conducted, please explain why.

Invasive shothole borer is known to occur in the Buck Gully Reserve, so surveys are conducted annually to determine if management is needed.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
Arroyo Willow	ISHB	Buck Gully	11
Red Willow	ISHB	Buck Gully	1
Sycamore	ISHB	Buck Gully	1

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

All infested trees that were surveyed are of low-to-moderate severity without dieback, so no management actions were recommended. The numbers include possibly infested trees whose status could not be confirmed.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

Yes

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

Trail condition monitoring is being revised to capture larger trail segments and to incorporate drone imagery to provide more information. There is ongoing monitoring and research related to wildlife and invasive tree pests.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

IRC will continue to monitor and treat priority invasive plants and report the results in Calflora.

Invasive beetle control actions to be undertaken by land owner or contractor?

Yes

Please explain the invasive beetle control actions to be undertaken by land owner or contractor.

IRC will continue to monitor ISHB in Buck Gully and recommend action as needed.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

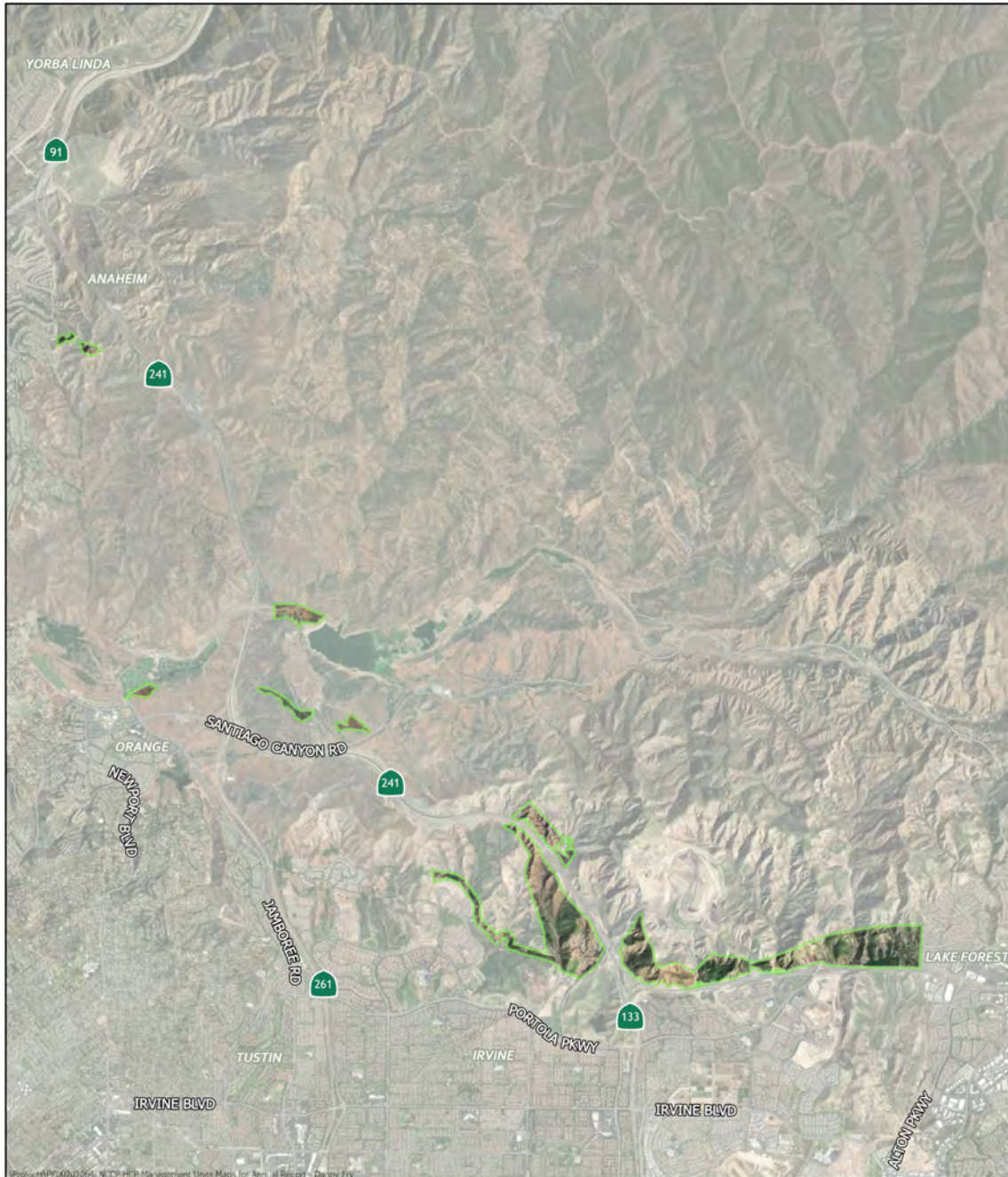
No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.8 Irvine Company

Irvine Company

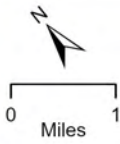


DESIGNED AND PRODUCED BY:
 DCCB
 80 Park St

DATA SOURCE:
 OC Parks (OCPR); Earthstar Geographics (Aerial Imagery)

The County of Orange and DCCB/OC Parks/Surveys/SSES/ES make no representations or warranties regarding the registration or accuracy of the data that supports this map use device. Further, the County, nor DCCB/OC Parks/Surveys/SSES/ES shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.

DATE: February 6, 2023



The Irvine Company



Land Manager Name

Irvine Ranch Conservancy

Reporting Year

2023/2024

Park, open space or management unit

Irvine Company

Website

<https://letsgooutside.org/>

Land owning entity:

Irvine Company (Irvine Company is the third party in some instances - see below)

Land managing entity if different from above:

Irvine Ranch Conservancy

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

The Irvine Company has continued to comply fully with its resource agency permit conditions through ongoing maintenance, monitoring, and reporting on all of its habitat mitigation sites within the Reserve. Notwithstanding post-Silverado Fire (2020) and drought-related effects, it also continues to meet the performance standards as required in each of the mitigation monitoring years and will continue to monitor them until performance standards are achieved. The Company's dedication to habitat restoration, specifically riparian habitat, within the Reserve is evident in the sites becoming fully established habitat for special-status species. No habitat impacts, fuel management, or public access occurred in 2023, and no significant changes or modifications are planned in 2024, aside from extended performance monitoring in areas affected by the Silverado Fire.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
N/A	N/A	N/A

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Irvine Ranch Conservancy		4727 Portola Parkway Irvine CA 92620	714-508-4757

B. Visitation

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

N/A

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

N/A

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

None

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A			

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

N/A

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

The Irvine Co. is both the land owner and third party.

Mitigation

Yes

Riparian Community Acres

7.38

If this is a formal restoration plan, please provide the name:

Planning Area 1 Habitat Mitigation and Monitoring Plan, dated Oct 2015

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2015-01-01

Anticipated End Date

2024-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

Project Lead

Third party

Mitigation

Yes

CSS Community Acres

3.21

Riparian Community Acres

1.26

Woodland Community Acres

0.34

If this is a formal restoration plan, please provide the name:

HMMP: OCTA Agua Chinon Subwatershed

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2013-01-01

Anticipated End Date

2024-06-30

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Yi-Chin Fang

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Partially

i. If no or partially, please complete the table below:

Treatment Methodology	Invasive Plant Name	Habitat(s) Impacted	Area of Treatment (Square Meters)
Other	Invasives were treated as part of the HMMP annual maintenance within the 7.43 acres and not conducted as part of a widespread invasive treatment control plan.		

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

Invasive beetles have not previously been observed, and suitable habitat is limited.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

Invasive beetles have not been observed to occur on the property.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

Yes

If yes, please fill out the following

Project Name	Habitat Type	Approximate Location	Area (acres)
Ongoing riparian maintenance and monitoring	Riparian	Orchard Hills NH3 & NH4	7.43

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

IRC will continue to monitor and treat priority invasive plants and partially report the results in Calflora.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

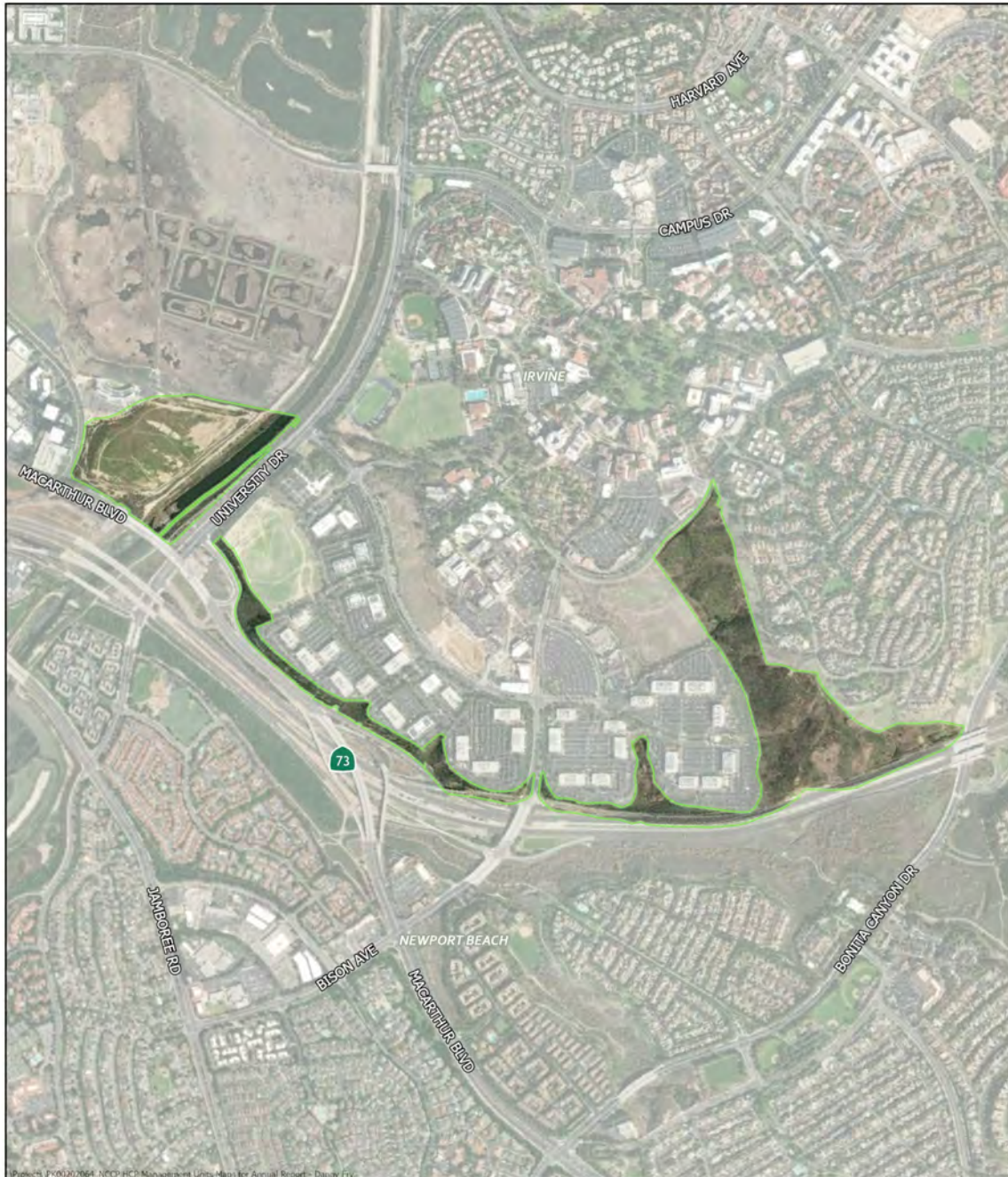
No

Maintenance of existing fuel management to be undertaken within the reserve?

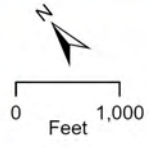
No

8.9 University of California, Irvine

Ecological Preserve



<p>DESIGNED AND PRODUCED BY: DCCR 95 Park St</p>	
<p>DATA SOURCE: UC Irvine, OCH: Barbara Geographics (Aerial Imagery)</p> <p><small>The County of Orange and OCH/UC Irvine/Geographics (Aerial Imagery) make no representations or warranties regarding the registration or accuracy of the data from which this map was derived. Further, the County, UC Irvine/OCH/UC Irvine/Geographics shall be liable under any circumstances for any errors, omissions, special, incidental or consequential damages with respect to any claims by any user or any third party on account of or arising from the use of this map.</small></p>	
<p>DATE: February 6, 2023</p>	



University of California, Irvine
 Ecological Preserve



Land Manager Name

UC Irvine

Reporting Year

2023/2024

Park, open space or management unit

Ecological Preserve

Website

<https://ecopreserve.ucnrs.org/>

Land owning entity:

University of California Irvine

I. Executive Summary**Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.**

Activities at the UCI Ecological Preserve in 2023 included: pedestrian trail use by recreational users, trail maintenance, management of invasive plant species and a tussock moth outbreak, research and teaching, stewardship of the fuel modification demonstration areas and the “Drought Net” study, and monitoring of White tailed kites, wildlife cameras, and monthly bird surveys.

A contract for a grant with the California Coastal Conservancy to expand the UCI Wildfire Safety and Healthy Habitats Restoration Project along its border with University Hills UCI-Nature was initiated December 2022. In 2023 we continued weed control as part of site preparation and in December we seeded approximately half the area with grassland forb species. In 2024 we'll plant bunchgrasses in January and then again in December and finish seeding the remaining areas.

In the restoration area of the Wildfire Safety and Healthy Habitats project, likely due to clearing of dense stands of mustard, a sensitive species of wildflower (*Convolvulus simulans*) was discovered again, having not been seen since 1977 and was documented through the IRVC digital herbarium. Two years ago in the same area another sensitive species emerged, *Phacelia ciliata*.

Research and teaching have continued on the long-term field experiment “Drought-net”. In spring of 2023, we determined through plant specimen and soil samples sent to a lab that the die back in shrubs across approximately half the study site was not due to the presence of phytophthora and therefore likely due to waterlogged soil based on its slope position and clay content. We decided to transition the focus of the site to education and abandon trying to replace plants and to maintain the original species composition of coastal sage scrub due to the die back. Perennial bunchgrasses were also established and monitoring of the site will continue. Activities at the UCI Ecological Preserve in 2023 included: pedestrian trail use by recreational users, trail maintenance, management of invasive plant species and a tussock moth outbreak, research and teaching, stewardship of the fuel modification demonstration areas and the “Drought Net” study, and monitoring of White tailed kites, wildlife cameras, and monthly bird surveys. UCI’s Environmental Collaboratory, Orange County Department of Education’s Inside the Outdoors (ITO), and Dana Hills High School interns will partner to develop a 5th-grade education program around the Drought Net research questions that help students develop their ability to understand the way that systems operate over space and time (systems thinking). The unit will be composed of four classroom activities and one five-

hour field trip that engage 5th-grade students in data collection related to project research questions. In addition, ten Dana Hills High School interns will work with UCI field staff to develop a demonstration plot next to the Drought Net site at UCI's Ecological Preserve for the 5th-grade students to learn about and practice data collection.

A contract for a grant with the California Coastal Conservancy to expand the UCI Wildfire Safety and Healthy Habitats Restoration Project along its border with University Hills UCI-Nature was initiated December 2022. In 2023 we continued weed control as part of site preparation and in December we seeded approximately half the area with grassland forb species. In 2024 we'll plant bunchgrasses in January and then again in December and finish seeding the remaining areas.

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Two theses were conducted at the Ecological Preserve this year, one an undergraduate thesis on the Impact of invasive Western Tussock Moth (*Orgyia vetusta*) on native California Buckwheat (*Eriogonum fasciculatum*) and the other a Masters thesis on White-tailed Kites of Orange County: Population Status, Habitat Use, and Management Recommendations.

UCI-Nature continued to plan a restoration project with UCI Campus Planning and Sustainability at the University owned San Joaquin Landfill. In 2023 this included working with a consultant to gather information and reach out to stakeholders. UCI Nature expanded soil sampling sites and the types of soils and geotechnical tests conducted based on these plans.

Invasive plant species mapping and control is primarily implemented by a small group of resident volunteers from the University Hills community that conduct weekly patrols. Entries are entered into Calflora. Staff time is limited, but supplemental spot control with herbicide is conducted as well.

Research and teaching use at the UCI Ecological Preserve in 2022-2023 increased five times the amount from 2021-2022 (from 218 to 1051).

A Masters in Conservation and Restoration Capstone Team conducted a thesis project on the kite study in collaboration with Bloom Biological and UCI Nature. The study is cited in the research section. A transmitter was installed on the male of a nesting pair to learn about their hunting behavior and home range 2023. A considerable amount of data was collected, but unfortunately, this male was found extremely weak and emaciated in the summer and efforts to increase nutrient uptake failed at Dr. Weldy's facility. Blood samples were collected to test for possible toxins, but unfortunately a mistake was made at the facility and they were never sent in for analysis. Kite monitoring will continue with Pete Bloom and UCI Nature in 2023-2024.

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II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

Open Access (see website above)

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Executive Director	1	.25
Research & Land Management Specialist	1	.2

3. Property Supervisor Contact Information

Name	Title	Email	Phone
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Megan Lulow	Executive Director	mlulow@uci.edu	949-500-8754
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B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

35000

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Rough estimation based on asking a handful of frequent resident users and staff observations. Estimates were broken down by week day use and weekend use and then summed.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

2020- 39,000
 2021- 35,000
 2022- 35,000
 2023- 35,000

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
1/01/2023	none	none	0

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Our trail monitoring is not systematic and simply involves staff walking the trails and noting changes, such as new spurs or the effectiveness of closures. There was an effort to close spur trails about 2019 by adding signs and eagle scouts roping lookout points. This was effective in most areas, but not all. With increased rains in 2022-2023, vegetation growth help to fill in trails unauthorized trails, however, rain also increased erosion. UCI Nature met with campus facilities and administrators to troubleshoot erosion control on certain stretches. We are hoping for implementation of some of these suggestions in 2024.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

UCI Wildfire Safety and Healthy Habitats Restoration Project

Mitigation

No

Grassland Community Acres

1

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-12-29

Anticipated End Date

2025-02-01

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Julie Coffey, UCI Nature

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

Yes, completely

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

The trees infested with beetles are in three areas of NCCP owned by UCI: 1) a riparian gully dominated by eucalyptus in the Ecological Preserve, 2) a riparian area of Research Park west of the Ecological Preserve and along the 73 where the wildlife culvert occurs (included within attachment of 2017 survey), and the other is along San Diego Creek adjacent to the UCI San Joaquin Marsh and San Joaquin Landfill. Surveys were conducted in 2017 marking uninfested and lightly infested trees in the Research Park area, and observed, but not surveyed in the other two areas. Another survey would be helpful to identify change of status in previously uninfested or lightly infested trees and for the other unsurveyed areas, but we are short on staff time to do this.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

Yes

i. If yes, identify the species:

ISHB

ii. Please complete the table limiting your responses to species occurrences or upload a attachment outlining the specifics below:

Infested Tree Species	Invasive Beetle Name	Infested Geographic Area of the Property	# of Infested Trees
sycamore	PSHB	see attachment	data on uninfested or lightly infested trees in search area, others were infested

iii. Did active management for invasive beetles occur on the property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

Attached is a summary of a survey conducted among UCI riparian areas, one of which is within the NCCP. Since then, infested trees have been observed in two other areas owned by UCI within the NCCP. We had engaged with Akif for treatment options, but have had insufficient funds to implement them. Another survey would be good to

conduct at this time prior to treatment.

Optional: upload a concise attachment regarding species occurrences, invasive beetle names, infested area and number of infested trees and actions taken or justify why no such actions were taken:

[Site-aerials-cover-estimate-raw-data-28.sep2017.pdf](#)

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

Yes

Fuel Management Map

[fuel-mod-areas-ecological-preserve.jpg](#)

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

UCI Wildfire Safety and Healthy Habitats Restoration Project

Mitigation

No

Grassland Community Acres

1

Coordination with NCC (i.e., discussion and/or plan review)

Yes

Start Date

2022-12-29

Anticipated End Date

2025-02-01

Performance Monitoring

Yes

Data Archived in GIS Database

Yes

Data Manager

Julie Coffey, UCI Nature

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

Yes

If yes, please enter additional details regarding the research pertaining to resources addressed by NCCP/HCP:

1. Research and teaching continued in 2023 on the long-term field experiment "Drought-net". UCI Nature and the Center for Environmental Biology staff are drafting a paper with Claudia Czimczik in Earth System Science on the study. In spring of 2023, we determined through plant specimen and soil samples sent to a lab that the die back of shrubs across approximately half the study site was not due to the presence of phytophthora and therefore likely due to waterlogged soil based on its slope position and clay content. We decided to transition the focus of the site to education and abandon trying to replace plants to maintain the original species composition of coastal sage scrub due to the die back. Perennial bunchgrasses were also established and monitoring of the site will continue. Multiple graduate students and classes from the Masters in Restoration and Conservation Science and Introduction to Ecology utilized the site for their instruction. UCI's Environmental Collaboratory, Orange County Department of Education's Inside the Outdoors (ITO), and Dana Hills High School interns will partner to develop a 5th-grade education program around the Drought Net research questions that help students develop their ability to understand the way that systems operate over space and time (systems thinking). The unit will be composed of four classroom activities and one five-hour field trip that engage 5th-grade students in data collection related to project research questions. In addition, ten Dana Hills High School interns will work with UCI field staff to develop a demonstration plot next to the Drought Net site at UCI's Ecological Preserve for the 5th-grade students to learn about and practice data collection.

2. Monitoring of kite nests and foraging behavior across the UCI Ecological Preserve and San Joaquin Marsh continued in 2023 and will continue in 2024. Just outside the Ecological Preserve a series of mowed and unmowed annual grassland plots were established to see if the kites preferentially use mowed plots. Additionally, small mammals and voles were sampled with bucket camera traps by UCI Nature and sherman live traps by Endemic Environmental. White-tailed kites have been observed nesting on the UCI campus and open space for over 50 years. Numbers of kite observations and nests have declined considerably in the county based on monitoring records over the past 20 years or so (data Pete Bloom, Scott Thomas). In recent years, kites have been observed nesting consistently along a row of eucalyptus bordering of the Ecological Preserve and University Hills and maintaining pairs is a conservation priority due to their decline elsewhere. Tree trimming and other disturbances such as harassment by crows and further development is a concern. In 2021 UCI Nature implemented a monitoring program with volunteers to track their activity with respect to hunting and nesting within a grid system superimposed on the Preserve. In addition, UCI Nature worked with University administrators to fund a study on White-tailed Kites in an

effort to summarize and document this pattern and investigate their foraging and nesting preferences with detailed observations and radio transmitters. In 2022 the study was initiated in collaboration with Bloom Biological, UCI Nature, and a Masters in Conservation and Restoration Science Capston team. Digitizing of historic nesting sites, follow up visits, a literature review, and putting a transmitter on a male nesting kite was conducted. The thesis is: Anderson, A., Guinea, R., Treminio, N., Estrella Mabini, N. White-tailed Kites of Orange County: Population Status, Habitat Use, and Management Recommendations. Capstone Thesis, Masters in Conservation and Restoration Science, UC Irvine. 2023.

3. Renee Trampush conducted an undergraduate thesis on the Impact of invasive Western Tussock Moth (*Orgyia vetusta*) on native California Buckwheat (*Eriogonum fasciculatum*) was completed in 2023 summarizing status on the reserve and actions taken to control the population by UCI Nature. Her adviser was Sarah Kimball with the Center for Environmental Biology.

4. Schlau, B. M., Huxman, T. E., Mooney, K. A. & Pratt, J. D. Three-way species interactions reverse the positive pairwise effects of two natives on an exotic invader. *Plant Ecol* (2023) doi:10.1007/s11258-023-01304-6.

5. Nell, C. S. et al. Consequences of arthropod community structure for an at-risk insectivorous bird. *PLOS ONE* 18, e0281081 (2023).

6. Vouchered checklist of the plants of the UCI Ecological Preserve; University of California, Irvine; Rebecca Crowe (UCI), Peter Bowler (UCI), Michael Simpson, San Diego State University (CSU)

7. Sea and Sage Audubon continued monthly bird surveys along set routes and enter data into ebird.

8. UCI Nature is also working with volunteers to maintain a carnivore camera trap at the culvert at the base of Research Park drainage leading to the Bonita Canyon corridor.

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

Yes

If yes, please fill out the following

Project Name	Habitat Type	Approximate Location	Area (acres)
--------------	--------------	----------------------	--------------

Landfill Restoration	Ruderal	San Joaquin Landfill	5
Wildfire Safety and Healthy Habitats Expansion	annual grassland	border of Ecological Preserve	1.4

Additional Information:

Landfill Restoration: UCI Nature and the Office of Physical and Environmental Planning will continue planning for a restoration project of the San Joaquin Landfill in 5 acres increments. We hope to start weed control in fall 2024. In 2023 we hired a consultant to gather information and reach out to stakeholders. In addition, UCI Nature expanded soil sampling sites and the types of soils and geotechnical tests conducted based on recommendations by the consultant.

Wildfire Safety and Healthy Habitats: In 2023 weed control continued as part of site preparation in the spring and fall and then seed of native grassland species were seeded across a little over half the acreage. Two areas were left unseeded because additional weed control was needed. These areas will be seeded in 2024 and bunchgrasses and pseudognaphalium californica will be planted in January 2024 and December 2024.

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

UCI Nature is coordinating with partners on mapping and control of invasive species along the west/south side of Reach 1 of San Diego Creek, but perennial pepperweed is extensive and we don't know that volunteers and staff will be able to get to all populations on UCI property. University Hills volunteer group plans to continue their patrols of the Ecological Preserve into 2024. Volunteers and staff will continue to patrol the Ecological Preserve for target species and enter them into Calflora if funds exist. UCI Nature staff participate in meetings with the OC Weed Coordinating Group.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Other invasive species (please describe):

We will monitoring and try to control for the tussock moth if they are observed in substantial numbers again.

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

Yes

Please explain the maintenance of existing fuel management to be undertaken within the reserve.

We will continue to maintain and monitor the existing footprint of the wildfire safety and healthy habitats demonstration project and will expand the weed control area (1.4 ac) as part of site preparation for planting and seeding in 2023 and 2024. Thinning of eucalyptus will be implemented late 2024 or early 2025.

8.10 Irvine Ranch Water District

San Joaquin Reservoir

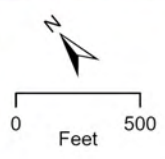


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DATE: February 6, 2023



Irvine Ranch Water District
 San Joaquin Reservoir



Land Manager Name

Irvine Ranch Water Dist

Reporting Year

2023/2024

Park, open space or management unit

San Joaquin Reservoir

Website

<http://www.irwd.com>

Land owning entity:

Irvine Ranch Water District

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

There were no major management efforts completed this year.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Natural Resource Manager	1	

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Ian Swift	Natural Resource Manager	swift@irwd.com	(949)433-5837

B. Visitation

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

There is no visitation

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

There is no visitation

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
01/01/2023	No Impacts Noted		

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

N/A

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

No

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

No surveys were conducted based on type/usage of site.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

No beetles have been surveyed at site.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

No

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.10 Irvine Ranch Water District Syphon Reservoir Preserve



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DATA SOURCE:
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DATE: February 6, 2023



Irvine Ranch Water District
Syphon Reservoir Preserve



Land Manager Name

Irvine Ranch Water Dist

Reporting Year

2023/2024

Park, open space or management unit

Syphon Reservoir Preserve

Website

<https://www.irwd.com>

Land owning entity:

Irvine Ranch Water District

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

No new management practices have occurred this year.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Natural Resource Manager	1	

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Ian Swift	Natural Resource Manager	swift@irwd.com	(949)433-5837

B. Visitation

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

No Visitors Allowed At This Location

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

Total visitors is same as last year.

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
	No Impact		

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

N/A

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

No

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

No surveys were conducted due to the type of premises.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

No surveys deemed necessary due to type of premises.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

No

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.11 Transportation Corridor Agencies

Bonita Creek

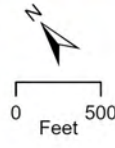


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DATE: February 6, 2023



Transportation Corridor Agencies
 Bonita Creek



Land Manager Name

Transportation Corridor Agencies

Reporting Year

2023/2024

Park, open space or management unit

Bonita Creek

Website

<https://thetollroads.com/about-tca/environment/places/>

Land owning entity:

Transportation Corridor Agencies

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

Bonita Creek Channel work plan for 2024 includes: as needed exotic species [such as pampas grass and eucalyptus saplings] and trash removal; as needed maintenance of the Austin Vault Sand Filter at Bison Avenue; use of public trail; minimal maintenance along the City of Newport Beach Bonita Creek Trail, including cutting back vegetation and removal of exotics; and a guided [Spring] tour.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

Both Open and Hosted Limited Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Manager, Environmental Planning	1	1

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Doug Feremenga	Manager	dferemenga@thetollroads.com	949.754.3496

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate?

Undocumented.

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

None

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

None

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

No

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	N/A	N/A	N/A

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

TCA staff conducts quarterly and as needed (e.g. post storm) monitoring of the site. In 2023 ponding was observed within the constructed wetland that operates as a water quality facility in conjunction with the Austin Vault Sand Filter at Bison Avenue. Work to maintain this facility and restore the water quality facility to working order is proposed in the 2024 Workplan. The rest of the site is in good repair. Vegetation communities, including but not limited to, arroyo willow thickets, Goodding's willow - red willow riparian woodland and forest, California sagebrush- (purple sage) scrub, and coyote brush scrub, is healthy and continue to provide foraging habitat, nesting/denning sites and shelter for numerous species of birds such as California Gnatcatcher and Least Bell's vireo, as well as other wildlife.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

No

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

Surveys of invasive beetles were not in the 2023 Workplan. TCA will coordinate with OCFA and other landowners regarding future surveys.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

N/A

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

Yes

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

As needed exotics removal such as pampas grass and eucalyptus saplings.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Other invasive species (please describe):

N/A

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.11 Transportation Corridor Agencies

Coyote Canyon

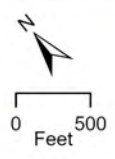


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DATA SOURCE:
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DATE: February 6, 2023



Transportation Corridor Agencies
 Coyote Canyon



Land Manager Name

Transportation Corridor Agencies

Reporting Year

2023/2024

Park, open space or management unit

Coyote Canyon

Website

<https://thetollroads.com/about-tca/environment/places/>

Land owning entity:

Transportation Corridor Agencies

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

The Coyote Canyon Landfill continues to be self-sustaining. No restoration, fuel management, public access or any other activities resulting in habitat impacts occurred in 2023. No maintenance activities were required in 2023 and none are anticipated in 2024.

II. Use Policies, Monitoring and Management**A. Use Policies, Procedures and Oversight****1. Use Policies and Procedures****a. Public Access Description for the Property**

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
Manager, Environmental Planning	1	1

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Doug Feremenga	Manager, Environmental Planning	dferemenga@thetollroads.com	949.754.3496

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate?
Undocumented.

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

N/A

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

N/A

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

N/A

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
N/A	N/A	N/A	N/A

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

No

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

No

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

N/A. The habitat isn't expected to support beetles.

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

N/A

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

No

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No

8.12 Southwest Resource Management Association

Portola South

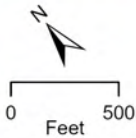


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DATA SOURCE:
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DATE: February 6, 2023



Southwest Resource Management Association
Portola South



Reporting Year

2023/2024

Park, open space or management unit

Portola South

Land owning entity:

Southwest Resource Management Association

I. Executive Summary

Provide a brief summary of the highlights relating to habitat impacts, restoration, fuel management and public access, as well as significant changes or modifications planned next year.

SRMA has conducted habitat restoration on 4 acres of the site as well as mountain bike trail decommissioning, blocking access to old trails, posting signs, controlling large woody weed species and patrolling. The site is not open to the public, although the Edison hike trail has been on the property for many years and residents still use the road despite signs to the contrary. No fuel management or other fire reduction practices are conducted due to the property being wildlife habitat and not for fire control for nearby homes. There will be no significant changes to land management practices next year and any modifications would need to be approved by FWS and DFW.

II. Use Policies, Monitoring and Management

A. Use Policies, Procedures and Oversight

1. Use Policies and Procedures

a. Public Access Description for the Property

No Public Access

b. Is there an official written policy governing property closure conditions and procedures?

No

c. Is there an official written policy governing special events use of the property?

Yes

Description of special events use for the property.

The site was set aside for impacts from another project and is not open to the public under the SRMA property transfer document and restrictive covenant.

ii. Has the policy been officially modified since the previous year’s annual report?

No

2. Oversight: Property Dedicated Staffing by Position

Position Title	Number of Positions	FTE
SRMA Ranger	1	Part Time

3. Property Supervisor Contact Information

Name	Title	Email	Phone
Kerwin Russell	Field Supervisor	krussell@srma-ca.org	9095534349

B. Visitation

a. Total number of public visitors to the property based on land owner's estimate:

Undocumented.

b. What method(s) is/are used to estimate visitation? Summarize in the box below.

Ranger encounters hikers/bikers and keeps number. Public is not supposed to access site, but does so when ranger is not there.

c. Compare the estimated number of total visitors this year to the past two years in the space provided below. If estimates for previous years do not exist for the property, please know the goal in future annual reports is to have estimates for three consecutive years to document visitation trends.

N/A

d. Were there new types of park users or uses observed over the past year (e.g., geocaching, use of drones, ebikes, etc.) that could warrant a management response or need for development of a new visitor policy? Please list new users and/or uses below.

Mountain bikes use the site and cut new trails, degrading habitat and creating erosion problems. Trails are removed when found and active trails are closed off. Some are re-opened by users weeks later, causing a constant management issue.

e. Were there any special events held for which special use permits were issued for the property?

No

f. In the table provided below, please identify any documented impacts to habitat from unauthorized property uses.

Date of Observation	Description of Impact	Habitat Type	Estimated Acres
Many dates	Mountain bikes	CSS	3

C. Monitoring Performed by Land Owner or Land Manager

a. Does land owner or its land managing representative monitor trail conditions annually?

Yes

i. If yes, summarize methodology in the space below and describe the general trend you observed for the property, and identify any specific trails where conditions are found to be degraded and any actions proposed or taken to address the degradation.

Visual observations are used to track new and old trails (vegetation filling in, new trails cut and new tracks seen on ground, etc.). When trails are found, they posted, crossed with wire or blocked with brush piles. Trail blocking is a constant management activity and is more of an issue on weekends and holidays.

ii. Are notes, photographs or other documentation of the monitoring performed archived?

Yes

III. Recreation Facility Construction and Maintenance

Did any recreational facility construction or maintenance occur or do such facilities occur on the property?

No

IV. Infrastructure Facility Construction and Maintenance

Did any infrastructural facility construction or maintenance occur or do such facilities occur on the property?

No

V. Habitat Restoration and Enhancement

Did any habitat restoration or enhancement occur on the property?

Yes

Project Lead

Land owner

Provide project name and/or permit number if the project is on behalf of an agency other than the land owner.

Trumark Restoration

Mitigation

Yes

CSS Community Acres

4

Cactus Scrub Community Acres

0.10

If this is a formal restoration plan, please provide the name:

Trumark Mitigation

Coordination with NCC (i.e., discussion and/or plan review)

No

Start Date

2022-07-19

Anticipated End Date

2026-12-31

Performance Monitoring

Yes

Data Archived in GIS Database

No

VI. Invasive Species Control

A. Plants

NCC Contractor Results will be summarized based on Cal Flora records.

1. Did the land owner/manager or their staff, volunteers or contractor treat invasive plant species on the property?

Yes

a. Were the results of the invasive plant control efforts for the property conducted by the land owner/manager or their contractor reported to CalFlora?

No, not at all

i. If no or partially, please complete the table below:

Treatment Methodology	Invasive Plant Name	Habitat(s) Impacted	Area of Treatment (Square Meters)
Synthetic Herbicide	tumbleweed, mustard	CSS	25x25

B. Beetles

1. Were active surveys conducted on the property for invasive beetles?

No

If surveys were not conducted, please explain why.

No funds or staff to conduct

2. Were any invasive beetle occurrences discovered prior to or during the reporting year on this property?

No

Provide a brief summary or explanation regarding species occurrences and justify the actions or lack of actions taken in the space provided and/or upload a specific attachment below:

Not as far as we know.

VII. Fire Management Activities

Fire incident reports to be completed by NCC and summarized in Section 4.1 of this annual report.

A. Fuel Management

Did any fuel management projects occur on the property?

No

VIII. Work Plan

Proposed Work Plan for Use, Monitoring and Management

Property closure policy: new or amended?

No

Property special use policy: new or amended?

No

GDP and/or Master Plan: new or amended?

No

Change in methodology for estimating property visitor use?

No

Change in methodology for monitoring changes in trail conditions and/or reporting?

No

Research (ongoing or new)?

No

Recreational Facility Construction and Maintenance (As defined in Section III)

Recreation facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Infrastructure Facility Construction and Maintenance (As defined in Section IV)

Infrastructure facility construction or maintenance with anticipated temporary or permanent habitat impacts?

No

Habitat Restoration and Enhancement (For only projects 0.25 acres or more)

Mitigation habitat restoration to be initiated?

No

Non-mitigation habitat restoration initiated?

No

Invasive Species Control

Invasive plant control actions to be undertaken by land owner (not NCC)?

Yes

Please explain the invasive plant control actions to be undertaken by land owner (not NCC).

Continue control of mustard in select areas, keep tamarisk and palms out of riparian area on north side of property.

Invasive beetle control actions to be undertaken by land owner or contractor?

No

Fuel Management Activities

Installation of new fuel management to be undertaken within the reserve?

No

Maintenance of existing fuel management to be undertaken within the reserve?

No