

MSP Roadmap 2022-2026 Objectives & State of Preserve Report Update

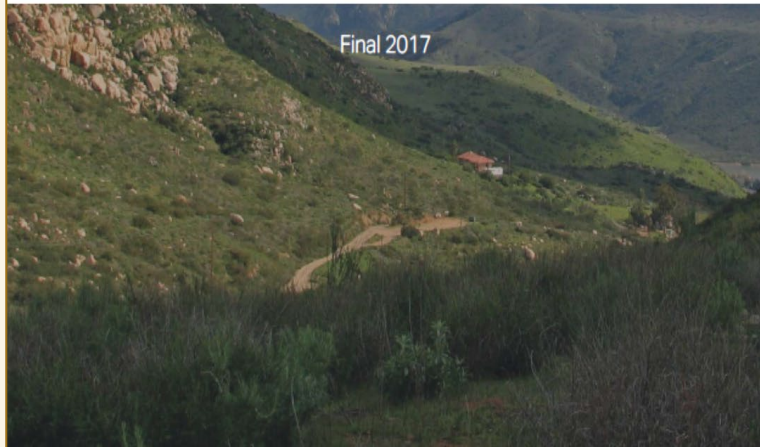
Kristine Preston
SDMMP Management & Monitoring Meeting 3.21.2017
4/27/2022



MSP Roadmap

5-Yr Updates

- 2013
- 2017-2021
- 2022-2026*
- 2027-2031



MSP 2017-2021 Species List

111 MSP Species (108 MSCP, MHCP, draft N. County Plan)

57 plants

7 invertebrates

1 fish

3 amphibians

5 reptiles

30 birds

8 mammals



MSP 2017-2021 Species List

133 MSP Species (108 MSCP, MHCP, draft N. County Plan)

68 plants

11 invertebrates

4 fish

4 amphibians

7 reptiles

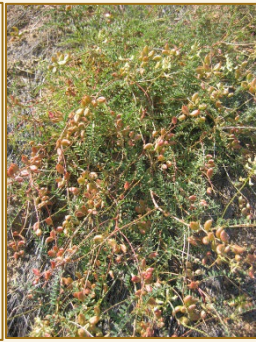
30 birds

9 mammals



MSP 2022-2026 Species List

133 MSP Species - 68 plants (+11 spp)



MSP 2022-2026 Species List

133 MSP Species

11 invertebrates (+4 spp)



MSP 2022-2026 Species List

133 MSP Species - 4 fish (+3 spp)



MSP 2022-2026 Species List

133 MSP Species - 4 amphibians (+1 spp)



MSP 2022-2026 Species List

133 MSP Species - 7 reptiles (+2 spp)



MSP 2022-2026 Species List

133 MSP Species - 30 birds (+2 spp, -2spp)

Removed:



Added:



MSP 2022-2026 Species List

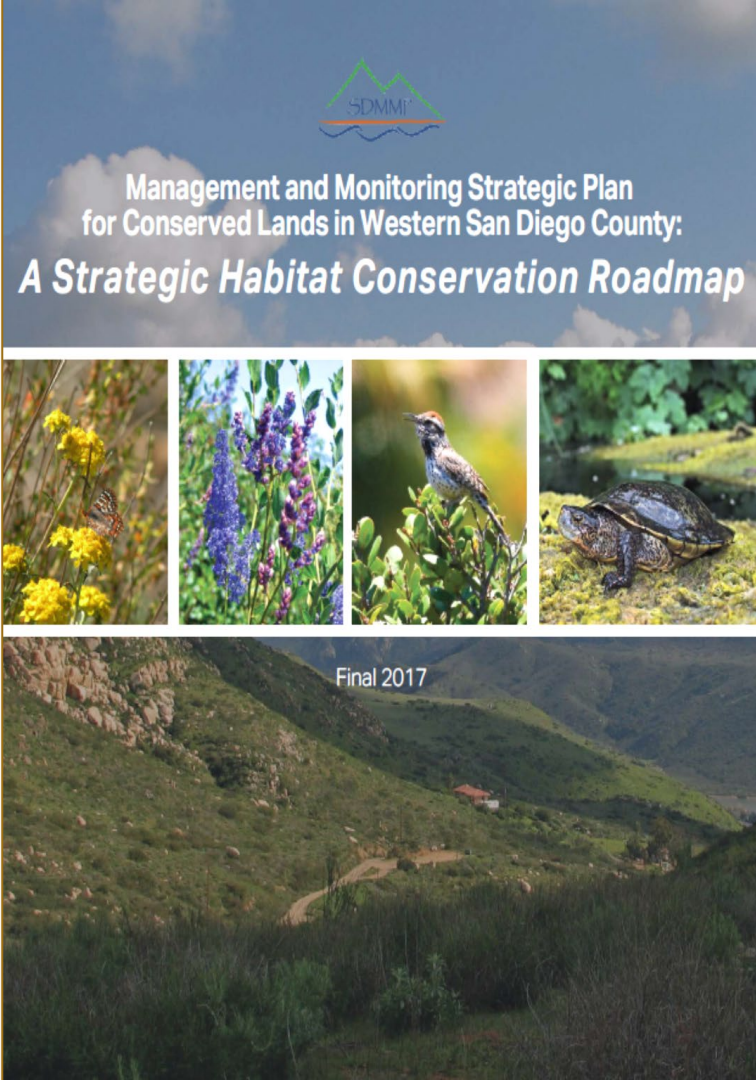
133 MSP Species - 9 mammals (+1 spp)



MSP Roadmap

Goals & Objectives

- Species
- Vegetation
- Threats



Adaptive Monitoring & Mgmt Approach

- Survey to find occurrences
- Monitor status, habitat & threats
- Conduct research & modeling to determine mgmt. strategy
- Prioritize mgmt. to ↓ threats & ↑ resilience of existing popns
- Implement mgmt. priorities
- Monitor mgmt. effectiveness & change as needed

https://sdmmp.com/
index.php

Mail - Preston, Kristine L - Outloc x SDMMP Home

ex.php

thern California Imported From Fire... California Native Gr... Advanced search California Native Gr... Data Basin San Diego Conserv

Photo: John Marks

San Diego Management & Monitoring Program

Home Portal Resources News About

Search

Applying science to conservation through collaboration

MMP's mission is to coordinate science-based biological management and monitoring of lands in San Diego that have been conserved through various conservation planning and mitigation efforts.

- MSP Portal
- Track MSP progress
- Spatial search
- Topic search
- Projects
- Species
- Vegetation communities
- Threats
- Preserves

MSP Portal

Management & Monitoring Strategic Plan: Goals, Objectives & Actions
The Management & Monitoring Strategic Plan provides goals, objectives and actions for species, vegetation communities, and threats/stressors. Use the MSP Portal to search this information spatially, by keywords, or by progress/status.

[Enter portal](#)

Projects

Project Profiles & Associated Reports, Data, and Maps
Numerous management and monitoring efforts are taking place across the South Coast Ecoregion. Search Projects to obtain more information on these efforts and view and download associated project reports, data, and maps.

[View projects](#)

Maps

Advanced GIS Viewer
Create maps using an advanced online ArcGIS software program which displays a specific set of spatial layers that allows users to access tools to investigate the layers interactively. SDMMP has numerous spatial layers available for users.

[Access viewer](#)

Library

Reports & Other Documents
Hundreds of reports and documents exist that describe conservation efforts in San Diego County and the region, and the plants and animals of conservation concern. Search the library to view and download documents.

[Browse library](#)

Highlighted Content

TransNet EMP Land Management Grant 10th Cycle
November 17, 2021 13:59pm

Announcements

Job Opportunity - Education Director (Earth Discovery Institute)
April 19, 2022 0:00am to June 22, 2022 0:00am

Upcoming Events

Mgmt./Mon. Coordination Meeting - April 2022
April 27, 2022 9:30am to April 27, 2022 11:30am

https://sdmmp.com/
tracker.php

ston, Kristine L - Outloc x Track MSP progress x +

t=species&Species=917698&MonMgtObjType=&FireObjType=&ObjectCode=&PlanObjType=&Status=&ManagementUnit=&Year=&Short=

Imported From Fire... California Native Gr... Advanced search California Native Gr... Data Basin San Diego Conserv...

Home Portal Resources News About

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San Diego Management & Monitoring Program

Home / Track MSP progress

Track MSP progress

> Narrow the objectives list with the following filters. Leave filters empty to view all results.

species	Management or monitoring...	Status...
Coastal cactus wren	Timing of fire objective...	Management unit...
Taxon category...	Objective code...	Year prioritized...
Species management category...	Objective modifier...	

> Click on type of results you would like, then hit "Submit".

Short Long Submit

Tracker results - long format

Export results

Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*

Goal: Protect, enhance, and restore suitable cactus scrub habitat for coastal cactus wrens to increase effective population size in each genetic cluster at a short term sustainable level (e.g. 50-100 wrens), rehabilitate habitat destroyed by wildfire, improve habitat quality to maintain populations during drought, enhance connectivity within and between genetic clusters to increase genetic diversity and rescue small populations, and manage anthropogenic predation risk to ensure the long term persistence (>100 years) of cactus wrens on Conserved Lands in the MSPA.

MGT-IMP-MGTPL CAMBRU-1 regional and/or local FOET 2017, 2018, 2019, 2020, 2021 NO

Management units: 2, 3, 4

From 2017 through 2021, continue implementing high priority management actions to: expand coastal cactus wren populations, rehabilitate habitat destroyed in the 2003 Cedar and 2007 Harris wildfires; improve connectivity within and between the Otay and San Diego/El Cajon genetic clusters (see occurrence table); and manage high risk of anthropogenic predation of adults and nestlings. These priority management actions are identified in the South San Diego County Coastal Cactus Wren Habitat Conservation and Management Plan prepared in 2015.

Actions Success criteria Associated Threats Related Objectives

Action	Statement	Action status	Projects
IMP-1	Following best practices in the South San Diego County Coastal Cactus Wren Habitat Conservation and Management Plan, design cactus scrub enhancement and restoration projects to provide high quality nesting and foraging habitat with large patches of cacti >1 m tall in a mosaic of open scrub that provides sufficient food resources for reproduction and survival, especially during drought. As they become available, incorporate the results from the Cactus Wren Demography, Foraging and Anthropod Study to create restoration palettes that favor plant species associated with important anthropod food resources. Design planting layouts to maximize water availability by allocating a portion of the plantings to more mesic sites, such as ravines, at the bottom of slopes, and on northerly and easterly aspects. Control invasive nonnative plants to ~20% absolute cover to reduce competition with native plants for water and light.	some occurrences are in progress	Otay River Valley Cactus Wren Habitat Restoration and Enhancement , Salt Creek Coastal Cactus Wren Habitat Restoration Project



Photo: Elyse Levy



Photo: Alexandra Houston



Photo: John Martin

Regional MONITORING



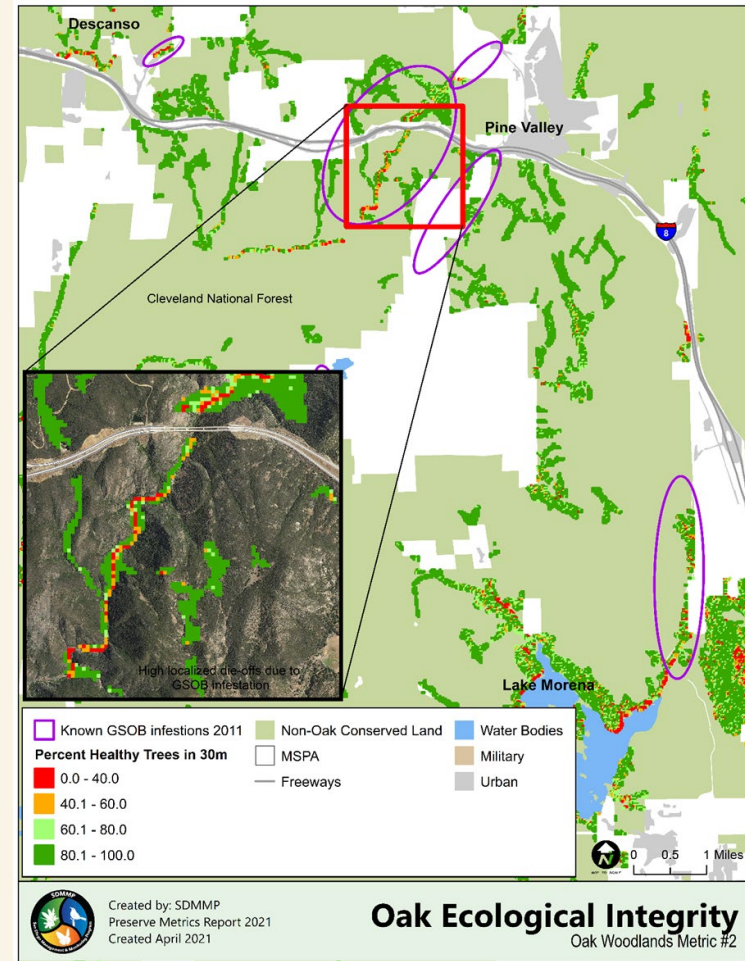
Photo: Chris Brown



Photo: Chris Brown

Vegetation Monitoring

- Ecological Integrity Modeling (2022-26)
- CSS, chaparral & grassland monitoring plan (2022-23) & VF species plans (2023)
- Pollinator monitoring plan (2022-2023)
- Monitor CSS, chaparral & Grassland, VF species & pollinators (2024-25)
- Riparian & oak monitoring plan & VF species plans (2024-2026)



Created by: SDMMP
Preserve Metrics Report 2021
Created April 2021

Oak Ecological Integrity
Oak Woodlands Metric #2

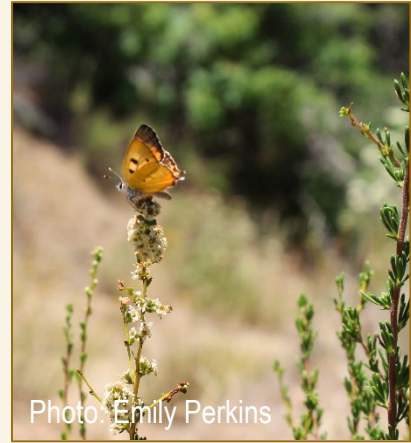
Rare Plant Monitoring – 2022-26



- IMG - 24 spp (6 sentinel)
- Discovery Surveys - 17 spp
- Data analysis & recommendations
- Genetics (Orcutt's spineflower, 3 Brodiaea spp)
- Veg (VF) monitoring – 9 spp

Invertebrate Monitoring - 2022 - 2026

- Crotch's bumblebee – pollinator monitoring plan (2022-2023), monitor 2024-2025
- Harbison's dunskipper - 2022, 2024
- Hermes copper – annual
- Quino checkerspot – plan (2022-2023) & monitor
- San Diego & Riverside fairy shrimp – vernal pool monitoring by landowners



Vertebrate Monitoring - 2022 - 2026

- American badger - plan (2023) & monitor
- Arroyo toad – plan (2022-23) & monitor annually
- Bell’s sparrow - veg plan (2023) & monitor 2024-25
- Blainville’s horned lizard – veg plan (2023) & monitor 2024-25
- California least tern – partners monitor
- Coast range newt – veg plan (2024-25)
- Coastal cactus wren – plan (2023) & monitor
- Coastal California gnatcatcher – 2024
- Golden eagle – plan (2022-23) & monitor



Photo: Richard Klafki

Vertebrate Monitoring - 2022 - 2026

- Grasshopper sparrow – veg plan (2023) & monitor 2024-25
- Least Bell's vireo – 2023, 2026 (SHB)
- Light-footed Ridgway's rail – partners monitor
- Loggerhead shrike – veg plan (2023) & monitor 2024-25
- Mountain lion - plan (2022-2023) & monitor
- Northern harrier – 2024
- Pallid & Townsend's bats – plan (2024-25) & monitor
- SD black-tailed jackrabbit – veg plan (2023) & monitor 2024-25
- Southern mule deer – plan (2025-26)

Vertebrate Monitoring - 2022 - 2026

- SW pond turtle – plan (2023-24) & monitor
- SW willow flycatcher – plan (2024-25) & monitor
- Stephen's kangaroo rat – partners monitor
- Tricolored blackbird – annual
- Two-striped garter snake – veg plan (2024-25) & monitor
- Western burrowing owl – partners monitor
- Western snowy plover – partners monitor
- Western spadefoot – plan (2022-2023) & monitor
- Yellow-breasted chat - veg plan (2024-25) & monitor

Threats Monitoring - 2022 - 2026

- Climate change – analyze climate data from weather stations
- Fire – analyze fire regime data
- Grazing monitoring plan (improve CSS, chaparral & grassland)
- Human use of preserves – regional camera monitoring
- Hydrology – Macrofaunal Index for Biological Integrity & stream flow monitoring
- Invasive species – Early Detection & Rapid Response (plants & animals)

Threats Monitoring - 2022 - 2026

- Loss of connectivity – meta-analysis connectivity data & monitoring plan
- Loss of ecological integrity – landscape modeling & veg monitoring
- Pests (shothole borer) - Monitoring Avian Productivity & Survival – (Tijuana River Valley)
- Pests (shothole borer) - Monitor least Bell's vireo territories (Tijuana River Valley, San Diego River)

MANAGEMENT



Rare Plant Management 2022-26

Management Strategic Plan
Seed Collection, Banking, and Bulking Plan
for
Conserved Lands in Western San Diego County



Prepared for
San Diego Association of Governments
Prepared by
Conservation Biology Institute and AECOM
in collaboration with
San Diego Management and Monitoring Program
March 2021

Management Strategic Plan
Framework Rare Plant Management Plan for
Conserved Lands in Western San Diego County



Prepared for
San Diego Association of Governments
Prepared by
Conservation Biology Institute and AECOM
in collaboration with
San Diego Management and Monitoring Program
March 2021

- Seed collection – 15 spp
- Implement mgmt. (TransNet & other grants, regional invasive sp control, land manager projects)

Vertebrate Management Plans

- American badger
- Arroyo toad
- Bats (finish)
- Coastal cactus wren (update)
- Coastal California gnatcatcher
- Golden eagle
- Mountain lion (BMPs in progress)
- Northern harrier
- Quino checkerspot
- SW pond turtle
- SW willow flycatcher
- Tricolored blackbird

San Diego County Hermes Copper (*Lycena hermes*) Habitat Conservation and Management Plan

Prepared for:
San Diego Association of Governments



Prepared by:
Department of Biology, San Diego State University
Dr. Daniel Marschallik and Dr. Douglas Deutschman, PI



24 April 2017

Burrowing Owl Conservation and Management Plan for San Diego County



Prepared by:
San Diego Zoo Institute for Conservation Research

In collaboration with:

San Diego Management and Monitoring Program

2017

South San Diego County Coastal Cactus Wren (*Campylorhynchus brunneicapillus*) Habitat Conservation and Management Plan

Prepared for:
San Diego Association of Governments



Prepared by:
The Nature Conservancy
In collaboration with
San Diego Management and Monitoring Program

June 18, 2015

Threat Management Plans & BMPs

- Altered hydrology
- Fire risk reduction
- Fire mgmt. plans
- Invasive Animals (finish)
- Grazing BMPs (CSS, chaparral & grassland)

Wildlife Infrastructure Plan for State Route 94, San Diego County Post Miles 15.27 to 30.00

Prepared for:
California Department of Fish and Wildlife
Natural Community Conservation Planning
Local Assistance Grant P1382108

Prepared by:
Conservation Biology Institute
in collaboration with
U.S. Geological Survey
Bureau of Land Management
San Diego National Wildlife Refuge
California Department of Transportation
California Department of Fish and Wildlife
Management and Monitoring Program



Management Priorities for Invasive Non-native Plants *A Strategy for Regional Implementation, San Diego County, California*

Prepared for:
San Diego Association of Governments
Contract No. 5001322

Prepared by:

Dendra Inc.



September 2012

COMPREHENSIVE MULTI-SPECIES CONNECTIVITY ASSESSMENT AND PLANNING FOR THE HIGHWAY 67 REGION OF SAN DIEGO COUNTY, CALIFORNIA



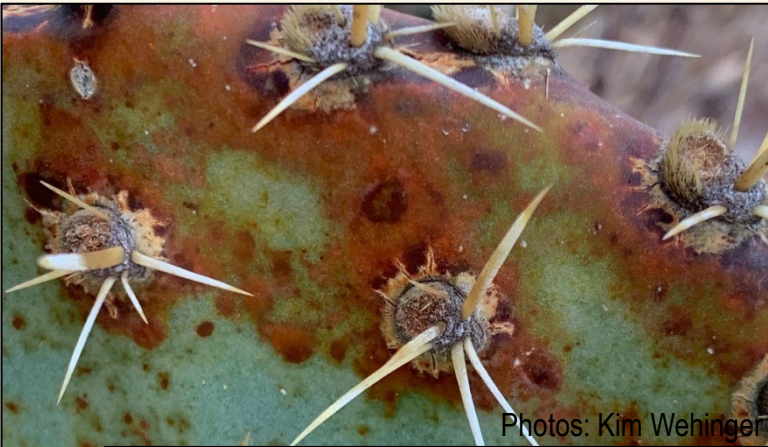
**Final Report
June 2017**

Prepared for:
SANDAG No. 5004388
Task Order 3

Prepared by:
Megan Jennings and Katherine Zeller

Cactus Pathogens

- AECOM collect samples - UC Davis to ID & test pathogenicity
- May have been around several years & plants may recover
- Determine BMPs for nursery & restoration



Photos: Kim Wehinger



Fire Management



- Resource advisor training/coordination
- Resource Avoidance Area Mapping & integration with fire mgmt. agencies

Shothole Borer-Fusarium Dieback



- UCD finished multi-year study
- Implement mgmt.

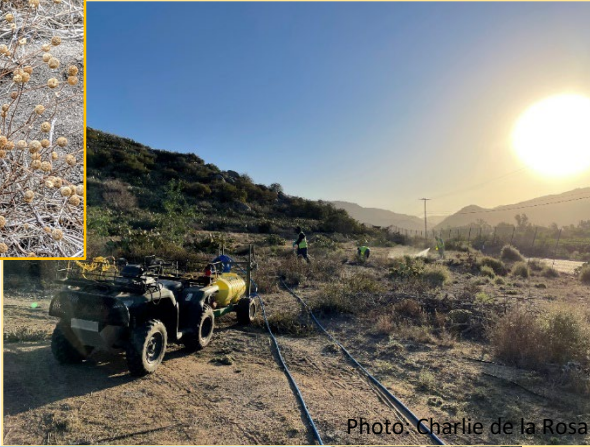


Photo: Charlie de la Rosa



Invasive Plants

- EDRR high priority sites
- Arundo retreatments
- *Oncosiphon pilulifer* (stinknet)

- Final editing
- USGS publication process
- Complete by fall?

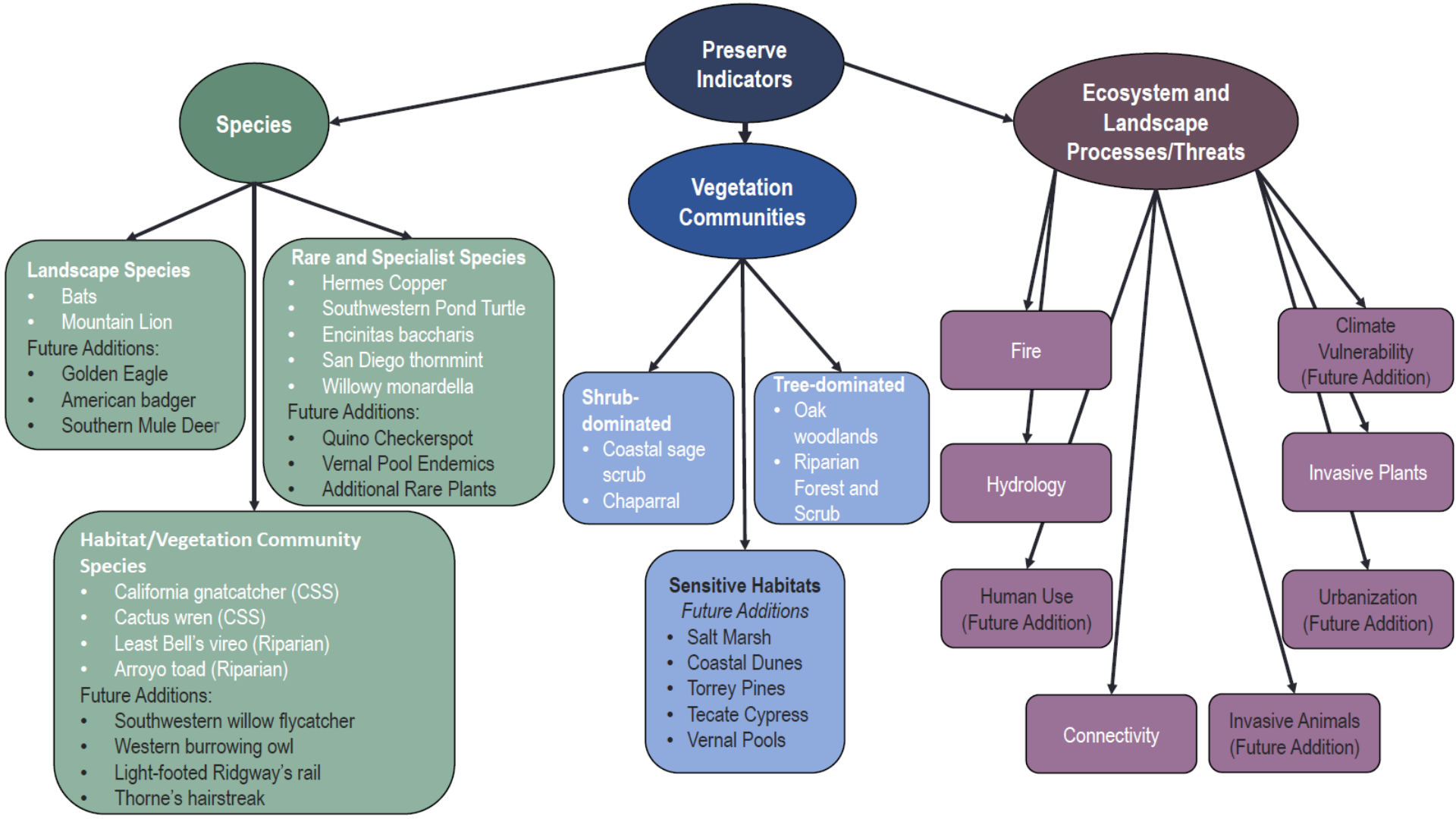
Prepared for the San Diego Association of Governments

State of the Regional Preserve System in Western San Diego County



Open-File Report 2022-XXX

U.S. Department of the Interior
U.S. Geological Survey



19 Indicators

- 2 (11%) in overall “good” condition
- 5 (26%) “caution”
- 7 (37%) “concern”
- 5 (26%) “significant concern”

Indicator Type	Indicator	Overall Condition	Trend	Confidence
Vegetation Community	Chaparral	Caution	Unknown	Moderate
Vegetation Community	Coastal Sage Scrub	Concern	Unknown	Moderate
Vegetation Community	Oak Woodlands	Caution	Unknown	Moderate
Vegetation Community	Riparian Woodlands	Good	Unknown	Moderate
Landscape Species	Bats	Caution	Unknown	Moderate
Landscape Species	Mountain Lions	Significant Concern	Declining	High
Rare and Specialist Species	Encinitas Baccharis	Caution	Improving	Moderate
Rare and Specialist Species	San Diego Thornmint	Caution	Improving	Moderate
Rare and Specialist Species	Willow Monardella	Concern	Unknown	Moderate
Rare and Specialist Species	Hermes Copper	Significant Concern	Declining	High
Rare and Specialist Species	Southwestern Pond Turtle	Concern	Improving	Moderate
CSS Vegetation Community Species	Coastal Cactus Wren	Concern	No change	High
CSS Vegetation Community Species	Coastal CA Gnatcatcher	Concern	Improving	High
Riparian Vegetation Community Species	Arroyo Toad	Significant Concern	Declining	Moderate
Riparian Vegetation Community Species	Least Bell's Vireo	Good	Improving	High
Ecosystem and Landscape-Scale Threats Indicators	Hydrology	Concern	Unknown	Moderate
Ecosystem and Landscape-Scale Threats Indicators	Connectivity	Significant Concern	Improving	Moderate
Ecosystem and Landscape-Scale Threats Indicators	Fire	Significant Concern	Declining	High
Ecosystem and Landscape-Scale Threats Indicators	Invasive Plants	Concern	Improving	Moderate

THANK YOU!!!!

