

# **M2 NATURAL COMMUNITY CONSERVATION PLAN/HABITAT CONSERVATION PLAN – 2025 ANNUAL REPORT**



Prepared by:

Orange County Transportation Authority  
550 South Main Street, PO Box 14184  
Orange, CA 92863  
Contact: Lesley Hill  
714-560-5759



May 2026



# Contents

|                                                                                                   | Page       |
|---------------------------------------------------------------------------------------------------|------------|
| <b>Executive Summary.....</b>                                                                     | <b>1</b>   |
| Tracking Impacts from Covered Activities.....                                                     | 1          |
| OCTA Preserves .....                                                                              | 2          |
| OCTA-Funded Restoration Projects.....                                                             | 3          |
| Additional Conditions for Coverage .....                                                          | 5          |
| Public Outreach .....                                                                             | 5          |
| Plan Funding .....                                                                                | 5          |
| Plan Administration.....                                                                          | 5          |
| <b>Chapter 1 Background and Introduction .....</b>                                                | <b>1-1</b> |
| 1.1 Background.....                                                                               | 1-1        |
| 1.2 Introduction.....                                                                             | 1-1        |
| 1.3 Compliance Matrix.....                                                                        | 1-1        |
| <b>Chapter 2 Tracking Impacts from Covered Activities.....</b>                                    | <b>2-1</b> |
| 2.1 Covered Freeway Improvement Projects.....                                                     | 2-1        |
| 2.1.1 Status of OCTA M2 Freeway Improvement Projects.....                                         | 2-1        |
| 2.1.2 Tracking of Habitat Impacts from Covered Freeway Improvement Projects.....                  | 2-6        |
| 2.1.3 Consistency Determinations for Covered Freeway Improvement Projects .....                   | 2-7        |
| 2.2 Tracking for Covered Plant Species Policy .....                                               | 2-8        |
| 2.2.1 Covered Plant Species Credits/Debits Ledger .....                                           | 2-8        |
| 2.3 Tracking Impacts on Habitat Types Resulting from Covered Activities within<br>Preserves ..... | 2-11       |
| 2.4 Maintaining Rough Proportionality .....                                                       | 2-11       |
| <b>Chapter 3 OCTA Preserves.....</b>                                                              | <b>3-1</b> |
| 3.1 Introduction.....                                                                             | 3-1        |
| 3.2 Preserve Status .....                                                                         | 3-5        |
| 3.2.1 Bobcat Ridge Preserve.....                                                                  | 3-5        |
| 3.2.2 Eagle Ridge Preserve .....                                                                  | 3-7        |
| 3.2.3 Live Oak Creek Preserve .....                                                               | 3-9        |
| 3.2.4 Pacific Horizon Preserve .....                                                              | 3-11       |
| 3.2.5 Silverado Chaparral Preserve .....                                                          | 3-14       |
| 3.2.6 Trabuco Rose Preserve .....                                                                 | 3-16       |
| 3.2.7 Wren’s View Preserve.....                                                                   | 3-19       |
| <b>Chapter 4 OCTA-Funded Restoration Projects .....</b>                                           | <b>4-1</b> |

|                   |                                                                        |            |
|-------------------|------------------------------------------------------------------------|------------|
| 4.1               | Introduction .....                                                     | 4-1        |
| 4.2               | Restoration Project Status .....                                       | 4-2        |
| 4.2.1             | Agua Chinon/Bee Flat Canyon .....                                      | 4-2        |
| 4.2.2             | Big Bend .....                                                         | 4-4        |
| 4.2.3             | City Parcel .....                                                      | 4-5        |
| 4.2.4             | Fairview Park .....                                                    | 4-7        |
| 4.2.5             | UCI Ecological Reserve.....                                            | 4-9        |
| 4.2.6             | Aliso Creek .....                                                      | 4-10       |
| 4.2.7             | Chino Hills State Park.....                                            | 4-12       |
| 4.2.8             | Harriet Wiedner Regional Park .....                                    | 4-14       |
| 4.2.9             | Lower Silverado Canyon .....                                           | 4-16       |
| 4.2.10            | North Coal Canyon.....                                                 | 4-18       |
| 4.2.11            | West Loma .....                                                        | 4-20       |
| 4.2.12            | USFS Dam Removal.....                                                  | 4-22       |
| <b>Chapter 5</b>  | <b>Additional Conditions for Coverage.....</b>                         | <b>5-1</b> |
| 5.1               | Introduction .....                                                     | 5-1        |
| 5.1.1             | Arroyo Chub.....                                                       | 5-1        |
| 5.1.2             | Many-stemmed Dudleya .....                                             | 5-1        |
| <b>Chapter 6</b>  | <b>Public Outreach.....</b>                                            | <b>6-1</b> |
| 6.1               | Public Outreach Overview .....                                         | 6-1        |
| 6.1.1             | EMP Public Outreach Events and Meetings .....                          | 6-1        |
| 6.1.2             | Preserve-Specific Public Outreach Events .....                         | 6-1        |
| 6.1.3             | Regional Coordination and Collaboration .....                          | 6-2        |
| <b>Chapter 7</b>  | <b>Plan Funding .....</b>                                              | <b>7-1</b> |
| 7.1               | Summary of Endowment Process.....                                      | 7-1        |
| 7.2               | Current Status of Endowment Funding .....                              | 7-2        |
| <b>Chapter 8</b>  | <b>Plan Administration.....</b>                                        | <b>8-1</b> |
| 8.1               | NCCP/HCP Administrator.....                                            | 8-1        |
| 8.2               | Minor Modifications to Plan, Permits, and Implementing Agreement ..... | 8-1        |
| 8.2.1             | Fairview Park Restoration Project Modification.....                    | 6-1        |
| 8.3               | Minor or Major Amendments to the Plan .....                            | 8-2        |
| 8.4               | Changed Circumstances.....                                             | 8-2        |
| <b>Chapter 9</b>  | <b>References .....</b>                                                | <b>9-1</b> |
| <b>Appendix A</b> | <b>Covered Freeway Improvement Projects Habitat Tracking Ledger</b>    |            |
| <b>Appendix B</b> | <b>Annual Schedule for Effectiveness Monitoring</b>                    |            |

**Appendix C**      Biological Monitoring Report for OCTA M2 Preserves: Trabuco Rose, Pacific Horizon, Bobcat Ridge, Silverado Chaparral, Wren’s View, Live Oak Creek, and Eagle Ridge, 2026

**Appendix D**      2025 Summary Letter for Maintenance Activities Performed on OCTA Preserves (RECON Number 9779), March 2026

## Tables

| Table |                                                                                            | Page |
|-------|--------------------------------------------------------------------------------------------|------|
| 1-1   | M2 NCCP/HCP Compliance Matrix .....                                                        | 1-2  |
| 2-1   | OCTA M2 Freeway Improvement Projects Status .....                                          | 2-2  |
| 2-2   | OCTA M2 Freeway Improvement Project Program-to-Date Habitat Impact Tracking Sheet.....     | 2-7  |
| 2-3   | OCTA M2 Freeway Improvement Project Consistency Determinations.....                        | 2-8  |
| 2-4   | Focused Plant Survey Data .....                                                            | 2-9  |
| 2-5   | Covered Plant Species Credits and Debits Ledger .....                                      | 2-10 |
| 2-6   | Rough Proportionality of Impacts and Conservation Credits Ledger .....                     | 2-13 |
| 2-7   | Conservation Credits Achieved to Date .....                                                | 2-14 |
| 3-1   | OCTA Preserves.....                                                                        | 3-1  |
| 3-2   | OCTA Preserve Wide Actions .....                                                           | 3-2  |
| 4-1   | OCTA-Funded Restoration Projects – Rounds 1 and 2 .....                                    | 4-1  |
| 6-1   | EMP Public Outreach Events 2020.....                                                       | 6-1  |
| 6-2   | Preserve-Specific Public Outreach Events 2020 .....                                        | 6-2  |
| 6-3   | Collaboration with Regional Management and Monitoring Programs 2020 .....                  | 6-2  |
| A-1   | Covered Freeway Project Habitat Impact Tracking Ledger .....                               | A-1  |
| A-2   | Status of Restoration Activities for Temporary Impacts from Covered Freeway Projects ..... | A-2  |
| B-1   | Annual Schedule for Effectiveness Monitoring on OCTA Preserves.....                        | B-1  |

## Figures

| Figure |                                                                 | Page |
|--------|-----------------------------------------------------------------|------|
| 1      | OCTA M2 NCCP/HCP Preserves and Funded Restoration Projects..... | ES-5 |

## Acronyms and Definitions

---

ACOE – Army Corps of Engineers

CAGN – Coastal California gnatcatcher

Caltrans – California Department of Transportation

CBB – Crotch’s bumble bee

CCC - California Coastal Commission

CCW – Coastal cactus wren

CDFW – California Department of Fish and Wildlife

CEs – Conservation Easements

CHL – Coast horned lizard

CHSP – Chino Hills State Park

CNDDDB – California Natural Diversity Database

COI – Certificate of Inclusion

CSS – Coastal sage scrub

ECR – Environmental Commitment Record

EMP – Environmental Mitigation Program

EOC – Environmental Oversight Committee. The EOC is made up of two OCTA Board members and representatives from Caltrans, the Wildlife Agencies, ACOE, environmental groups, and the public. The EOC makes recommendations on the allocation of environmental freeway mitigation funds and monitors the execution of a master agreement between OCTA and state and federal resource agencies.

ESA – Endangered Species Act

FMP – Fire Management Plan

GLA – Glenn Lukos Associates

GSOB – Gold spotted oak borer (beetle)

HCP – Habitat Conservation Plan

HMMP – Habitat Mitigation Monitoring Plan

I – Interstate

IA – Implementing Agreement

IML – Intermediate mariposa lily

IRC – Irvine Ranch Conservancy

ISHB – Invasive shot hole borer

ISMP – Invasive Species Management Plan

MSD – Many-stemmed dudleya

M2 – The renewed Measure M (or Measure M2)

M2 NCCP/HCP – OCTA M2 Natural Communities Conservation Plan / Habitat Conservation Plan adopted on November 2017. Also referred to as Plan.

NCCP – Natural Community Conservation Plan

NCCPA – Natural Community Conservation Plan Act

OC Parks – Orange County Parks

OCTA – Orange County Transportation Authority

OTW – Orangethroat whiptail

RMP – Resource Management Plan

SCAG – Southern California Association of Governments

SCE – Southern California Edison

SR – State Route

UCI – University of California, Irvine

USFS – United States Forest Service

USFWS – U.S. Fish and Wildlife Service

Wildlife Agencies – the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS), collectively referred to as the Wildlife Agencies

## Executive Summary

---

This is the eighth Annual Report for the Orange County Transportation Authority (OCTA) renewed Measure M (M2) Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP or Plan), covering all activities between January 1, 2025, and December 31, 2025. This report summarizes the tracking of impacts associated with covered freeway improvement projects and other management and monitoring activities on Preserves (Covered Activities). It also provides an update of the status and activities on the OCTA Preserves, progress on the implementation of OCTA-funded restoration projects, and additional Plan administration and public outreach activities. This Annual Report has been prepared to comply with the state NCCP and federal HCP annual reporting requirements and will be submitted to the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS), collectively referred to as the Wildlife Agencies, for review. Once the Annual Report has been finalized, it will be presented to the OCTA Environmental Oversight Committee (EOC) and will be available for public review.

### Tracking Impacts from Covered Activities

OCTA keeps account of the Plan-to-date impacts on habitat types from all covered freeway improvement projects to ensure impacts stay within the caps established within the Plan. To date, a total of **9.2 acres of habitat impacts have been authorized relative to a cap of 141.0 acres**. In addition, OCTA uses a consistency determination checklist to evaluate how and when avoidance and minimization measures are implemented on covered freeway improvement projects. No projects had consistency determinations drafted, modified, or completed within the timeframe of this Annual Report. Other tracking requirements include:

- *Tracking for Covered Plant Species Policy* – OCTA tracks the credits for covered plant species protection (on Preserves) and restoration/enhancement (restoration projects) relative to allowable impacts. The Plan-to-date balance for each plant species is net positive (intermediate mariposa lily (*Calochortus weedii* var. *intermedius*, IML) [+933], many-stemmed dudleya (*Dudleya multicaulis*, MSD) [+57], southern tarplant (*Centromadia parryi* ssp. *australis*, ST) [+59,377]).
- *Tracking Impacts on Habitat Types Resulting from Covered Activities within Preserves* – The Plan establishes a cap that no more than 13 acres (approximately 1%) of the natural habitat within the OCTA Preserves will be impacted by Preserve management activities. To date, no measurable permanent impacts have been recorded on the Preserves.
- *Maintaining Rough Proportionality* – The Plan requires implementation of conservation measures roughly proportional in time and extent to impacts on natural communities and Covered Species. To date, eight restoration projects, Big Bend, City Parcel, Bee Flat, University of California, Irvine (UCI) Ecological Reserve, United States Forest Service (USFS) Dam Removal, Agua Chinon, Lower Silverado Canyon, West Loma, North Coal Canyon, and Aliso Creek have received sign-off from the Wildlife Agencies as meeting their success criteria and have achieved conservation credits that keeps the Plan ahead of allowable impacts.

## OCTA Preserves

OCTA acquired seven properties resulting in the protection of 1,236<sup>1</sup> acres of natural habitat (see Figure 1). In all instances, the seven Preserves are located within priority conservation areas and immediately adjacent to other protected lands. These Preserves add to the protection of large blocks of natural open space in areas important for regional conservation. OCTA has completed Resource Management Plans (RMPs) for each Preserve that includes Preserve-specific goals and objectives and defines an appropriate level of public access and trail use consistent with protection of biological resources. An update to the RMPs is currently underway. OCTA will be coordinating the updated language with the Wildlife Agencies. It is anticipated that Conservation Easements (CEs) will be established and recorded in the near future. Templates have been developed and are currently under review with CDFW legal counsel. Currently, each Preserve is managed by OCTA. OCTA is considering potentially transitioning to a long-term Preserve Manager and is working to identify potential Preserve Managers. Ideally, the potential long-term Preserve Manager will be included in the review and discussions of the CEs before they are recorded to help avoid management limitations and keep selection opportunities open.

OCTA has contracted the following consulting firms to support Preserve management:

- (1) Glenn Lukos Associates (GLA) to provide biological monitoring, oversee implementation of the approved invasive species management plans (ISMPs), assist with public outreach events, and general program needs including CE support.
- (2) RECON Environmental to support general Preserve stewardship including maintenance of access roads, tree trimming, and control of public access. RECON will also be assisting with updating the RMPs.
- (3) High Level Security Services (HLSS) to assist with patrol of the Preserves to help deter trespassing, vandalism and provide enforcement as needed.
- (4) Guida Surveying Inc. to perform property surveying services.

Most notably, focused surveys for covered bird species and covered mammal monitoring were conducted in 2025. In addition, focused monitoring efforts concluded for the 2022 Coastal Fire burn area at the Pacific Horizon Preserve. GLA also analyzed several years of mammal camera data to describe the movement of the OCTA covered mammals within each Preserve. An access agreement and easements for all existing Southern California Edison (SCE) infrastructure (excluding Bobcat Ridge) were recorded in 2025. Maintenance activities included (but were not limited to) annual vegetation maintenance (related to fire prevention and invasive species removal), and fencing, gate and sign repairs. In addition, OCTA hosted numerous Preserve-specific outreach events to educate the public about property value and public access. OCTA will continue to offer managed access for many of its Preserves consistent with the approved RMPs.

---

<sup>1</sup> The acreage of natural habitat preserved is based on best available information used during the preparation of RMPs and may be slightly different from acreages reported in the M2 NCCP/HCP.

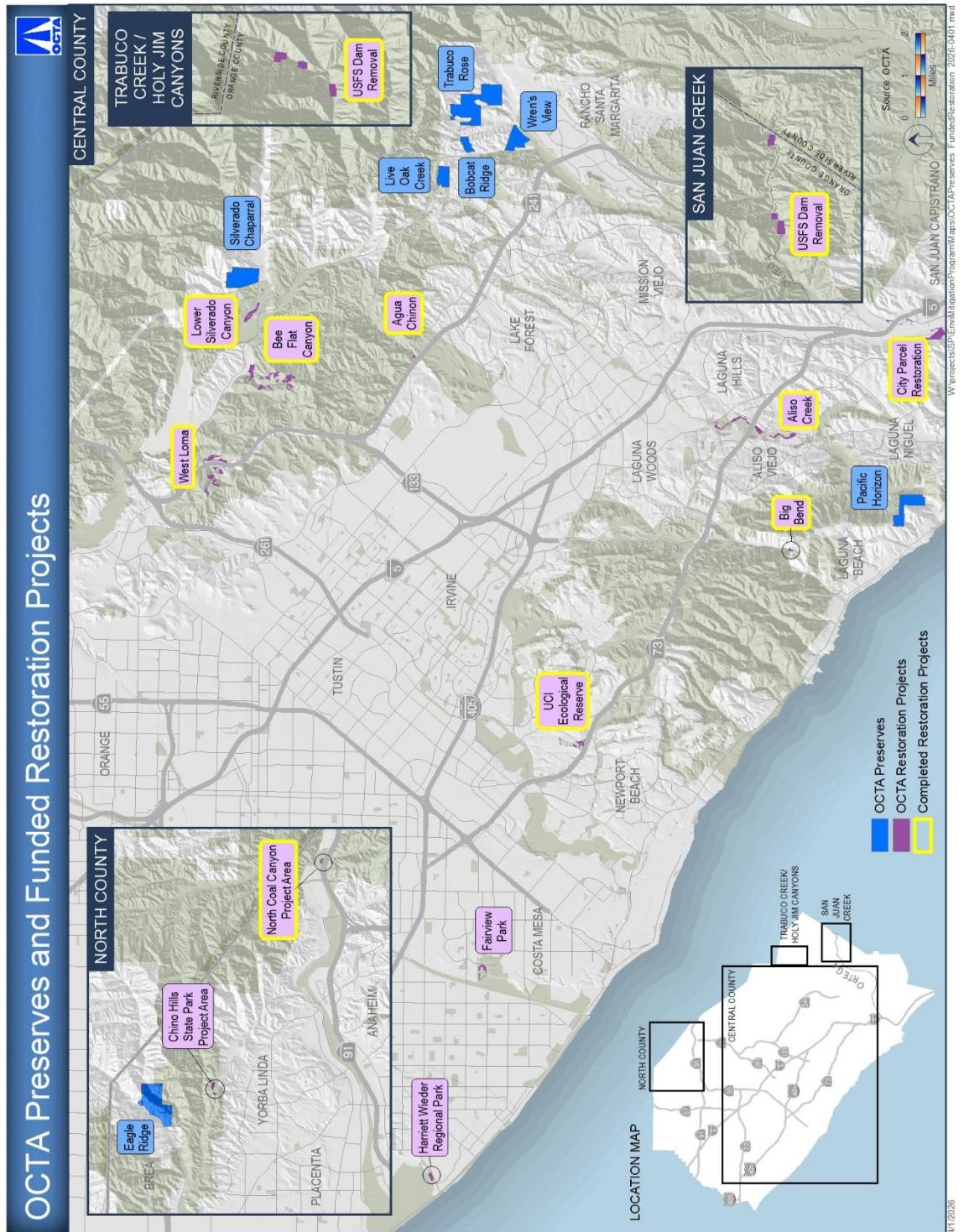
## OCTA-Funded Restoration Projects

OCTA has approved funding for 13<sup>2</sup> restoration projects (including a dam removal project) that will result in over 350 acres of restored habitats and improvements to habitat functions for Covered Species. The restoration projects occur throughout the Plan Area in core habitat areas and within key habitat linkages and riparian corridors (see Figure 1). The restoration projects are on lands that are currently managed and will enhance habitat for Covered Species. OCTA is working with the restoration project sponsors to complete implementation and monitoring of the restoration activities. At completion, the restoration projects must meet their success criteria to achieve sign-off from the Wildlife Agencies. To date, ten of the 13 restoration projects have obtained sign-off. The remaining three restoration projects are at different stages of this process.

---

<sup>2</sup> Previous annual reporting stated that there were 12 restoration projects. One of the restoration projects (Irvine Ranch Conservancy) is comprised of two distinct geographical areas and thus are reported as two projects. Moving forward, 13 restoration projects will be referenced to keep consistent with other OCTA reports.

**Figure 1 – OCTA M2 NCCP/HCP Preserves and Funded Restoration Projects**



## Additional Conditions for Coverage

As part of the Conservation Analysis (Chapter 6) in the Plan, there are two Covered Species, arroyo chub (*Gila orcutti*) and MSD, noted for additional conditions for coverage which are above and beyond the acquisition of the OCTA Preserves and funding of restoration projects. In 2022, the OCTA-funded USFS Dam Removal restoration project was completed and approved. This restoration project satisfied the conditions for coverage of arroyo chub.

OCTA is currently implementing an MSD restoration/enhancement project at the Pacific Horizon Preserve. This project is intended to expand the existing population and meet the criteria needed to achieve coverage for this species. Additional information pertaining to these efforts is included in Chapter 3.2.4.1 Pacific Horizon Management and Monitoring Summary. If this project does not successfully meet the MSD set requirements, OCTA will fund a separate restoration project within Orange County.

## Public Outreach

OCTA is committed to transparency in how the M2 funds have been and are being used to implement the Plan and the broader Environmental Mitigation Program (EMP). OCTA has conducted a variety of public outreach activities aimed at informing and engaging the public on the overall EMP as well as Preserve-specific issues and events. These have included public meetings during the preparation of the Preserve RMPs, maintaining a website with information and documents related to the program, and engaging in various outreach efforts. In 2025, OCTA participated in six Preserve-specific public outreach events.

## Plan Funding

The primary source of funding for the Plan derives from the M2 transportation sales tax designed to raise money to improve Orange County's transportation system. As part of the M2 sales tax initiative, at least five percent of the revenues from the freeway program will be set aside for the M2 EMP revenues. There are sufficient funds available through the M2 EMP to cover the implementation of the Plan. OCTA is currently in the final years of a 12- to 15-year process (target of fiscal year 2027/2028) to accumulate and establish, in perpetuity, an endowment that will provide a long-term funding source to cover ongoing Preserve management and monitoring, adaptive management, and responses to changed circumstances. The current M2 EMP revenue stream is used to cover Plan implementation and administration until the endowment is fully funded.

## Plan Administration

OCTA is responsible for implementing the Plan and staffing an NCCP/HCP Administrator position. OCTA has designated Lesley Hill as the NCCP/HCP Administrator. Her role includes overseeing Preserve management and monitoring, coordinating with restoration project sponsors, serving as the primary point of contact with the Wildlife Agencies, ensuring avoidance and minimization measures are implemented pursuant to the Plan, tracking impacts and conservation, assisting with public outreach, and preparing this annual report.

The Plan outlines how modifications and minor/major amendments can be made to the Plan. In response to unauthorized maintenance activities by SCE on two OCTA Preserves, a minor amendment to the Plan has been proposed to document utility poles and maintenance areas within various Preserves. Coordination with SCE began in 2020, resulting in an access agreement and easements for all infrastructure (excluding Bobcat Ridge) which were recorded in 2025. Additionally, SCE is in the process of obtaining a Coastal Development Permit (CDP) from the California Coastal Commission (CCC) for past and ongoing activities at the Pacific Horizon Preserve (and adjacent properties). The CDP process, delayed by the 2022 Coastal Fire, is ongoing as SCE continues to collaborate with the CCC, Wildlife Agencies and OCTA. Additional information regarding this coordination can be found in Section 3.2.4.1 of this report. No major amendments to the Plan are proposed.