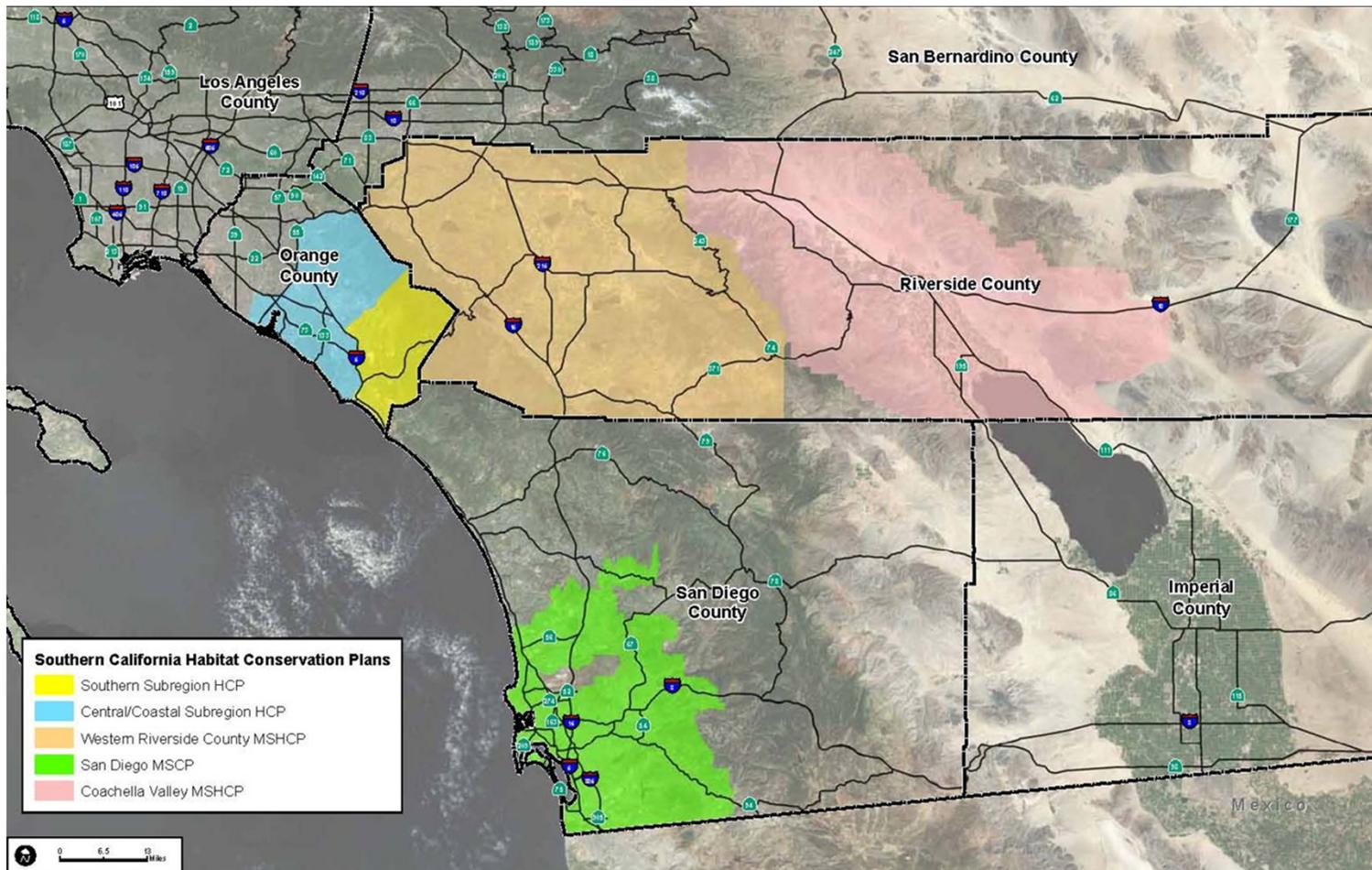


# Introduction

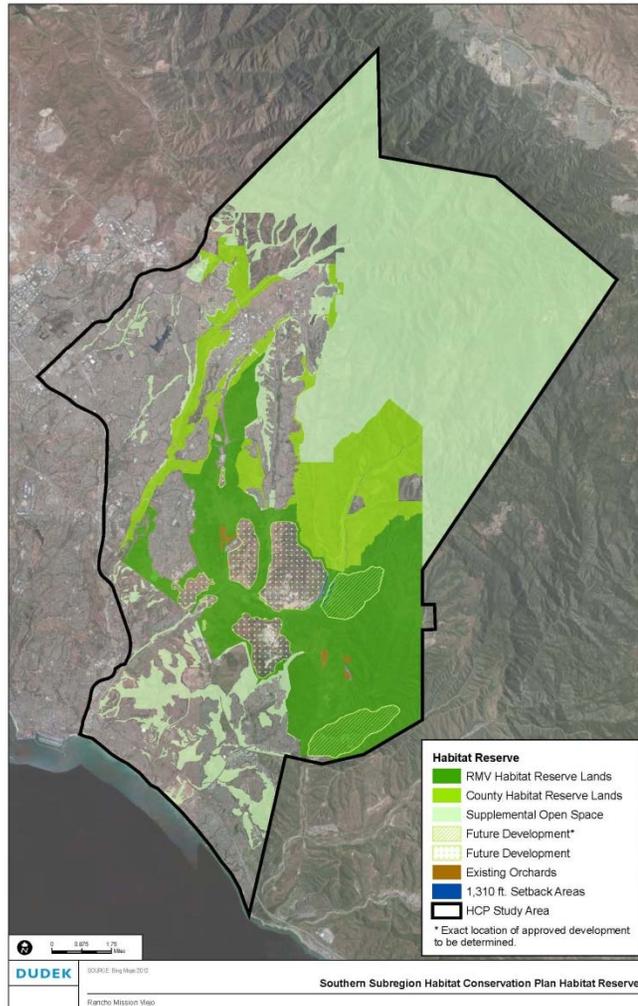


Laura Coley Eisenberg  
Senior Vice President – Open Space & Resource Management  
Rancho Mission Viejo

# Southern California Habitat Conservation Plans



# Southern Subregion Habitat Conservation Plan



## ☞ Three Permittees:

- County of Orange
- Santa Margarita Water District
- Rancho Mission Viejo

## ☞ Hardline Habitat Reserve

- 32,818 acres
  - 11,950 County Parks
  - 20,868 RMV lands
- 32 Covered Species
- 9 Conserved Vegetation Communities
- Aquatic Resource Conservation Areas

# Listed Species

## ☞ Birds

- California gnatcatcher
- Least Bells vireo
- Southwestern willow flycatcher



## ☞ Invertebrates

- Riverside fairy shrimp
- San Diego fairy shrimp

## ☞ Amphibians

- Arroyo toad

## ☞ Plants

- Thread-leaved brodiaea

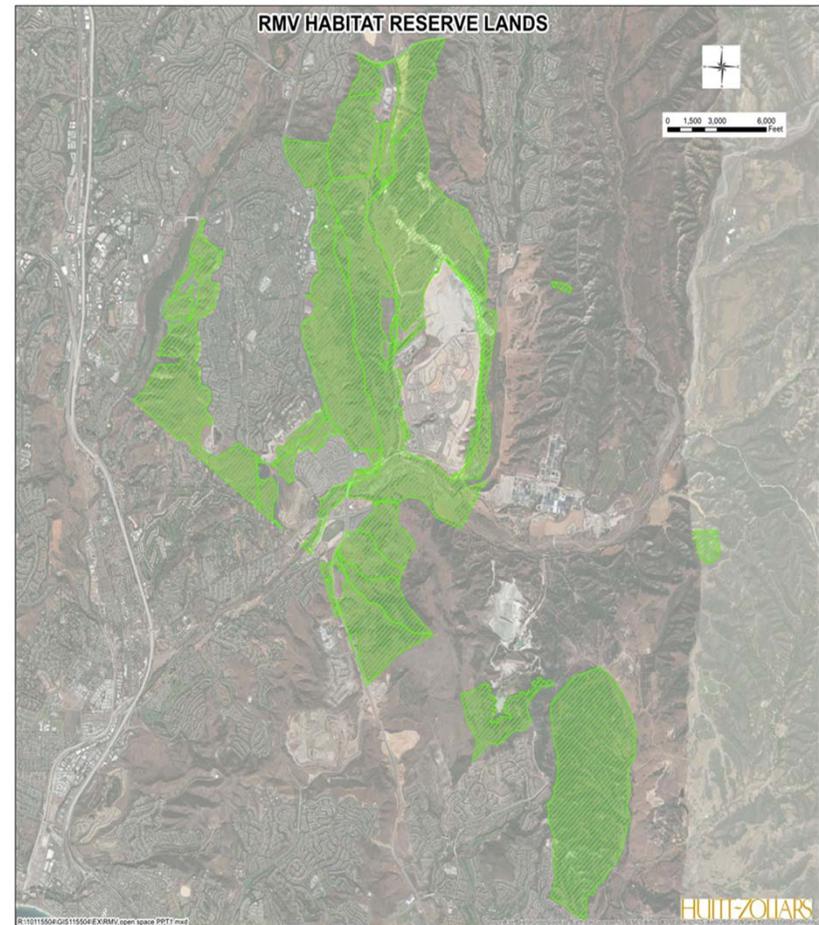
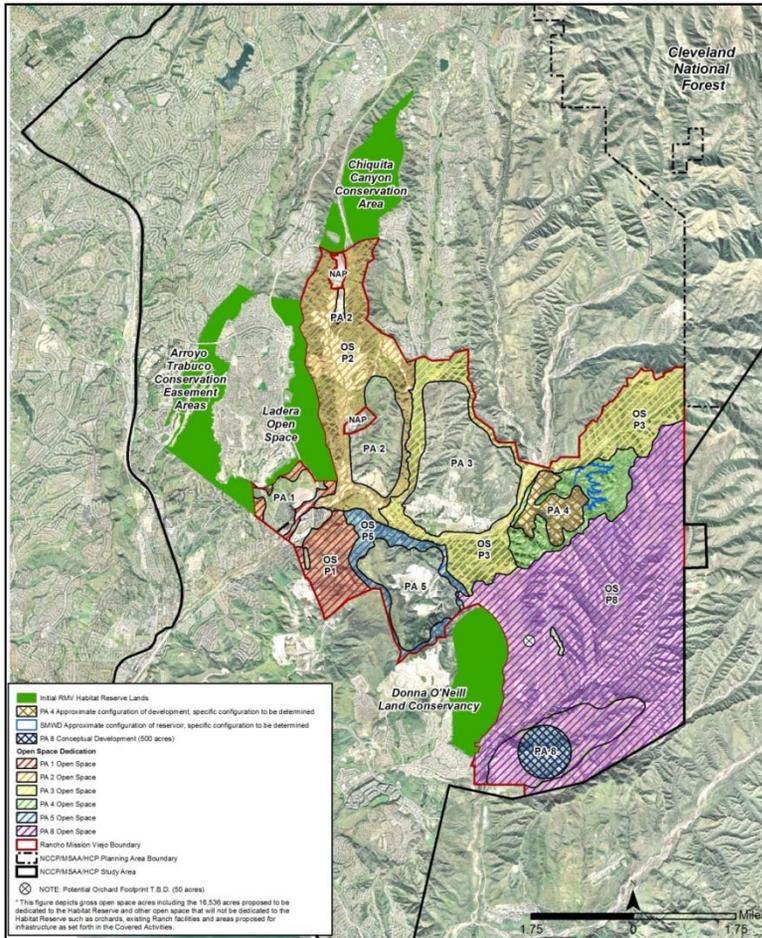


# Conserved Vegetation Communities

- ☞ Coastal Sage Scrub
- ☞ Chaparral
- ☞ Grassland
- ☞ Riparian
- ☞ Freshwater Marsh
- ☞ Alkali Meadow
- ☞ Open Water
- ☞ Streamcourses
- ☞ Woodland & Forest



# Enrollment of Lands into Habitat Reserve



# Habitat Reserve Management Structure

- ∞ Five components of management structure
  - County NCCP/MSAA/HCP Administrative Coordinator – coordination of the Habitat Reserve Management Program within the Habitat Reserve
  - Rancho Mission Viejo Land Trust – collection, investment and distribution of funding for the benefit, preservation and enhancement of the RMV Habitat Reserve Lands
  - RMV Reserve Manager – manage and monitor the RMV Habitat Reserve Lands pursuant to the approved NCCP/MSAA/HCP
  - The Reserve at Rancho Mission Viejo – non-profit 501 (c)(3) who will hold conservation easement on RMV Habitat Reserve lands
  - Science Panel – input into management priorities and monitoring protocols to obtain best available scientific information

# Management and Monitoring

## ∞ Management

- Adaptive Management
  - Based on Conceptual Models per Vegetation Community
  - Based on Conceptual Models per Species
  - Designed to adapt to stressors on the environment, such as
    - Fire
    - Flood
    - Invasive Species

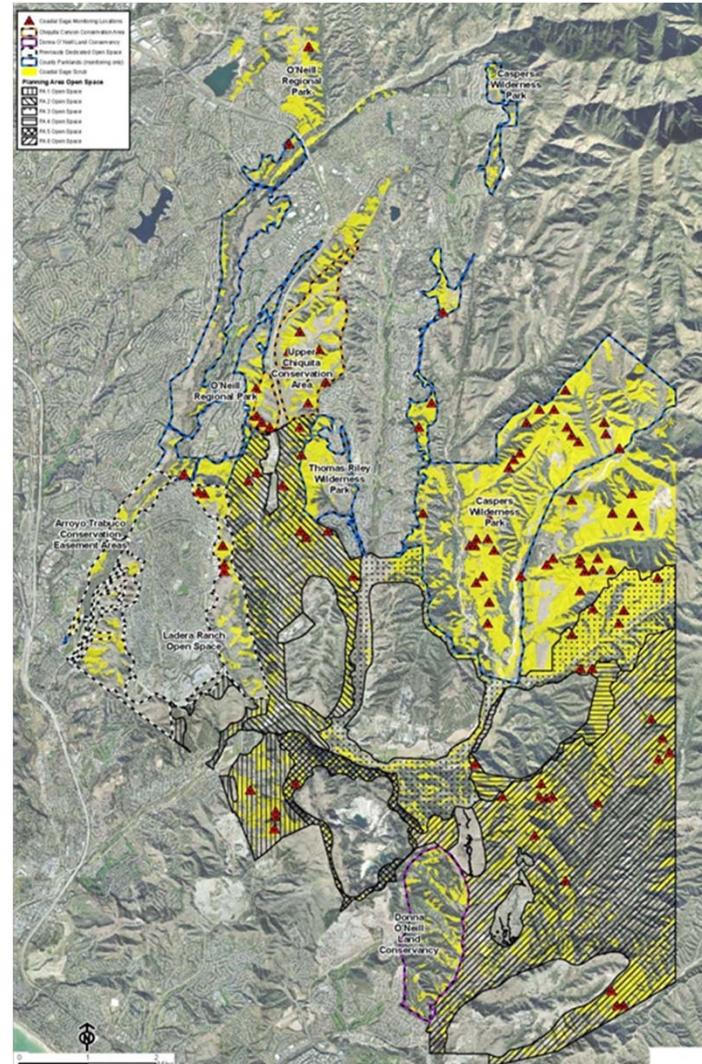
## ∞ Monitoring

- Vegetation Community level
- Individual Species
- Wildlife Movement Corridors



# Management & Monitoring Action Plan

- Management & Monitoring Action Plan (MAP)
  - Prepared every 5 years
  - Reviews BGO's
  - Confirms/adjusts priorities
  - Projects lands to be enrolled
  - Currently implementing 3<sup>rd</sup> MAP
- Science Panel
  - Invaluable to process
  - Neutral third parties
  - Bring academic rigor to monitoring protocols



# Status of Biological Goals & Objectives

**Table A-1**  
**Snapshot Summary of the Current Status of Biological Goals and Objectives in the 2019-2024 MAP**

|  |  |  |   |  |   |
|--|--|--|---|--|---|
|  | Status currently meets or exceeds objective. |  | Status approaching or temporarily below management threshold, and/or status is uncertain due to inconclusive monitoring data. |  | Status has declined below management threshold and appropriate action(s) being implemented. |
|--|--|--|---|--|---|

| ID    | Objective  | Status | Summary  |
|-------|--|--------|--|
| OW1.1 | Maintain acreage of oak woodland communities in the Habitat Reserve in 2023 within 5% of 2008 baseline values  |        | Based on currently enrolled acreages, oak woodland communities decreased by less than 2%.  |
| OW1.2 | Maintain high level of health of oak woodlands throughout the Habitat Reserve, including healthy trees, diverse age structure, and adequate recruitment to maintain woodlands in perpetuity. Manage potential oak woodland stressors, including fire, altered hydrology, disease and pathogens, cattle-related effects, new invasive species, and other anthropogenic effects. |        | Drought-related increases in dieback, canopy thinning, tree mortality and infestation by pests and pathogens, as well as declines in acorn production and seedling and sapling recruitment. Oak regeneration study and/or supplemental plantings in targeted areas may be warranted if conditions continue to decline. |
| OW1.3 | Maintain acreage of oak woodland communities in the identified habitat linkages and corridors in 2023 within 5% of 2008 baseline values.   |        | All habitat linkages and wildlife corridors remain within 5% of 2008 baseline values based on currently enrolled acreages.   |

# Priority Species & Vegetation Communities

| Resource                          | Focus                   | Activity                   | Timing    | Frequency    | Priority |
|-----------------------------------|-------------------------|----------------------------|-----------|--------------|----------|
| Coastal Sage Scrub                | Cactus wren             | Habitat Mapping*           | 2020      | 5 years      | High     |
| Coastal Sage Scrub                | Avian monitoring        | Point-count surveys        | 2020      | 2x / 3 years | High     |
| Coastal Sage Scrub                | Vegetation              | Monitoring                 | 2020      | 4 years      | High     |
| Riparian/wetland                  | Avian monitoring        | Point-count surveys        | 2020      | 3 years      | High     |
| Riparian/wetland                  | Vegetation              | CRAM                       | 2019      | 3 years      | High     |
| Oak Woodland                      | Vegetation              | Monitoring                 | 2023      | 5 years      | High     |
| Oak Woodland,<br>Riparian/Wetland | SHB, GSOB               | Rapid Assessment           | 2019      | 1 year       | High     |
| Plant Covered Species             | Coulter's saltbush      | Monitoring                 | 2019-2024 | 2x           | High     |
| Plant Covered Species             | Southern tarplant       | Monitoring                 | 2019-2024 |              | High     |
| Plant Covered Species             | many-stemmed dudleya    | Monitoring                 | 2019-2024 | 2x           | High     |
| Plant Covered Species             | thread-leaved brodiaea  | Monitoring                 | 2019-2024 | 1 year       | High     |
| Wildlife Species                  | Grasshopper sparrow     | Baseline Survey            | 2019-2024 |              | Medium   |
| Wildlife Species                  | Tricolored blackbird    | Reconnaissance             | 2019      | 1 year       | Medium   |
| Wildlife Species                  | San Diego horned lizard | Surveys                    | 2019-2024 |              | Medium   |
| Wildlife Species                  | Western pond turtle     | Visual Surveys             | 2019-2024 | 3 years      | Medium   |
| Invasive Species                  | African clawed frog     | Baseline Survey            | 2019-2024 |              | High     |
| Invasive Species                  | Argentine ants          | Baseline Survey            | 2019-2024 |              | Medium   |
| Invasive Species                  | Red-imported fire ant   | Surveys and Treatment      | 2019-2024 |              | Medium   |
| Invasive Species                  | Non-native Fishes       | Surveys                    | 2019-2024 |              | N/A      |
| Invasive Species                  | Exotic Weed Control     | Maintenance and Monitoring | 2019-2024 |              | High     |
| Cattle Grazing                    | Exotic Weed Control     | Monitoring and Management  | 2019      | 1 year       | High     |

# Questions?

