

# Multiple Species Habitat Conservation Plan

## Monitoring Program Overview 2011

*Preserving our open space heritage • Protecting our economy • Building our future*



# Biological Monitoring Program



## MSHCP Requirements

- Provide information on achieving species objectives for 146 Covered Species
- Provide information on natural communities & ecological processes
- Provide information to Reserve Managers for management decisions
- First 5-8 years expected to be an Inventory Phase

# Program Structure

- Regional Conservation Authority (RCA) has the ultimate responsibility for implementing the program
- California Department of Fish and Game (CDFG) is responsible for providing Monitoring Program Administrator and supporting the Monitoring Program for the first 8 years
- Staff currently provided by:
  - Regional Conservation Authority (13)
  - California Department of Fish and Game (11)
- CDFG also provides program vehicles (10)

# Monitoring Program Role in Species Objectives

- All 146 Covered Species have conservation objectives that define conservation to be achieved by MSHCP
- All species objectives require documentation of species presence and/or reproduction
- Species objectives have reporting requirements
  - Annual – 5 species
  - 3 year – 7 species
  - 5 year – 8 species
  - 8 year – 126 species
- Monitoring Program conducts surveys throughout the entire conservation area



grasshopper sparrow

# Budget

**FY 2010/11 \$1,263,810**

- RCA: \$680,110
  - Wildlife Agencies:
    - \$398,284 CDFG funded
    - \$185,416 (est. 4 months billing)\*
- \*State/Federal SWG grant total = \$788,027 over 17 month term  
not yet signed by the State
- The MSHCP and Implementing Agreement identified locally funded monitoring costs of \$1.0-1.5 mil. annually and total program costs of \$1.6-2.4 mil. annually



Englemann Oak

# Previous FY Budgets

**FY 09/10: \$1,498,358**

Wildlife Agencies \$448,530

RCA \$ 1,049,828

**FY 08/09: 2,000,929**

Wildlife Agencies \$531,802

RCA \$ 1,469,127

**FY 07/08: 2,108,000**

Wildlife Agencies \$563,000

RCA \$1,545,000

**FY 06/07: \$ 1,960,419**

Wildlife Agencies \$ 440,000

RCA \$ 1,520,419

**FY 05/06: \$1,239,344**

Wildlife Agencies \$444,240

RCA \$795,104

# Species Survey Efforts

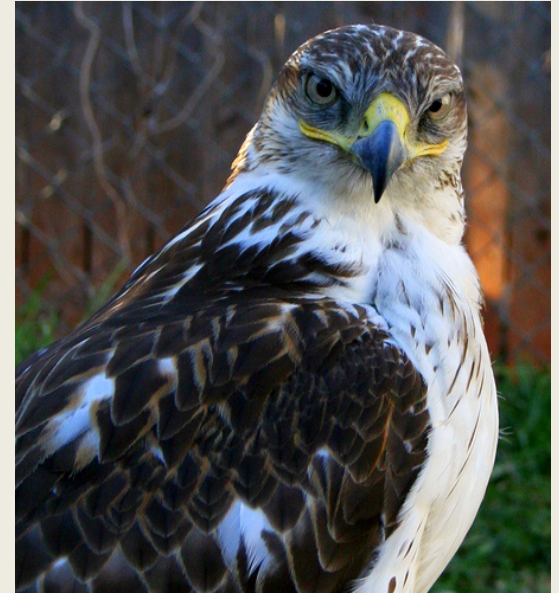
- Survey protocol development\*
- Sampling design\*
- Baseline inventory field surveys – ~95% done, exceptions include difficult species objectives (e.g., LA pocket mouse), species where obtaining access to all necessary areas is difficult (e.g., pond turtle)
- Updating and verifying existing records of species occurrences – 99% done for records currently in conservation
- Update species occurrence/breeding surveys at intervals required by the Plan (most at least every 8 years)

\* done except in cases where surveys and/or sampling design done by partnering agencies

# Species Objectives Examples

## Ferruginous Hawk

- Include within the MSHCP Conservation Area at least 144,120 acres of agriculture (field crops), grassland, cismontane alkali marsh, playa and vernal pool, Riversidean alluvial fan sage scrub, coastal sage scrub, peninsular juniper woodland and scrub, riparian scrub, woodland and forest, including 2,690 acres at Mystic Lake/San Jacinto Wildlife area and 5,520 acres of riparian habitat at Prado Basin/Santa Ana River.
- *Monitor status and distribution at least once every 8 years. Species presence and continued use shall be maintained at 75% of the locations indentified in the species accounts.*



# Species Objectives Examples

## Coyote

- Include within the MSHCP Conservation Area at least 489,500 acres of suitable habitat in the Plan Area, including linkages between large habitat blocks along 12 major watercourses.
- *Monitor status and distribution at least once every 8 years. Species presence and continued use shall be maintained at 75% of the locations indentified in the species accounts, as measured at least once every 8 years.*



# Species Objectives Examples

## California gnatcatcher

- Within the MSHCP Conservation Area, maintain (once every three years) continued use of and successful reproduction at 75 percent of the nine Core Areas. Successful reproduction is defined as a nest which fledged at least one known young.
- 
- Requires regular monitoring of species distribution and nest monitoring to document reproduction across several Core Areas.

# Species Objectives Examples

## Los Angeles pocket mouse

- Within the MSHCP Conservation Area, Reserve Managers shall demonstrate that each of the seven Core Areas supports a stable or increasing population that occupies at least 30 percent of the suitable habitat (at least 4,200 acres) as measured over any 8-consecutive year period (i.e., the approximate length of the weather cycle).
- Requires multiple years of distribution and density/abundance data across several Core Areas for a sparsely distributed species that is intermittently available for detection.



# Collaborations

- **Monthly meetings with Reserve Managers**
  - Forum to share timely information with managers and researchers in plan area (BLM, NFS, RCHCA, Parks, CNLM, SAWA, RC RCD, CalFire)
- **Partnerships**
  - Data shared to further monitoring goals and avoid duplicative efforts. In some cases staff also participate in shared survey efforts
    - UC Davis Wildlife Health Center - Mountain lion tracking study
    - USGS Yellow-Legged frog program
    - SAWA Wetland Bird Surveys
    - CNLM data sharing
- **Coordinate with other HCPs/NCCPs**
  - Contribute to/participate in a regional understanding of species/habitat status. Learn from other efforts

# Progress to Date

- Developed protocols, sampling design, and methods for data analysis
- Developed Operations and Training Manuals
- Developed an integrated database that houses all MSHCP survey data
- Complete survey reports and species observation datasets and distribute to Reserve Managers annually



Lemon Lily



Quino checkerspot butterfly



Least Bell's vireo



Western pond turtle



Burrowing owl

# Progress to Date

- All 146 species have had focused surveys conducted by the Monitoring Program or partnering agencies, and/or have been incidentally observed:
  - Focused surveys by Monitoring Program for 131 species within the required time period (123 detected)
  - Focused surveys only by partnering agencies for 5 additional species [e.g., SB flying squirrel (U.S. Forest Service)]
  - Occurrence data on another 10 species (detected incidentally)
  - Survey objectives have been met for 45 species



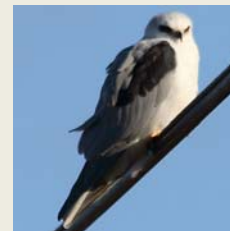
Spreading navarretia



Granite spiny lizard



Yellow-breasted chat



White-tailed kite



Long-tailed weasel

# Program Status

## Monitoring Program Activities vs. Budget

- Reporting requirements:
  - 126 species must be surveyed for at least every 8 years
  - 20 species must be surveyed for at shorter intervals (annual to every 5 years)
  - Result is that some species survey must always be under way
  - Adaptive management activities (information to Reserve Managers on species and habitats) is an additional activity that will increase over time as more land is acquired
- Original budget projections didn't anticipate drop in Monitoring Program cost after initial species inventory complete
- Budget reductions in FY 09/10 and FY 10/11 were due to revenue reductions, not a reduction of required surveys. Program currently funded below Plan projections and level needed to maintain survey coverage and frequency.