WRC-MSHCP Vegetation Monitoring

WCR-MSHCP

1.26 million acres

146 species of plants and animals; 500,000 acres of habitat

Inventory and assessment phase vs. long-term monitoring phase

"What is the condition (e.g., percentage cover exotic versus native vegetation, disturbance and fire history, etc.) of each vegetation community, and how is it changing over time?"

Vegetation-related Plan Items

63 rare plant species

13 major vegetation community types:

- Chaparral
- Coastal Sage Scrub
- Grassland
- Woodlands and Forests
- Montane Coniferous Forests
- Agricultural Land
- Riparian Scrub, Woodland, Forest
- Playas and Vernal Pools
- Water
- Riversidean Alluvial Fan Sage Scrub
- Desert Scrubs
- Meadows and Marshes
- Cismontane Alkali Marsh

Principle goals of the vegetation community and wildlife habitat inventory and monitoring:

- Map the distribution and calculate the acreage of vegetation communities and wildlife habitats within the MSHCP Conservation Area, and at a coarser resolution, the undeveloped lands outside the Conservation Area but inside the Plan Area;
- Monitor changes in those vegetation communities and wildlife habitats over the long term to assess whether their conservation goals are being met; and
- Provide information to assist in deciding which lands should be incorporated into the Conservation Area.

10-year vegetation maps to analyze shifts in community distribution

- 1995: Pacific Southwest Biological Services (PSBS) and KTU+A; adhered to Holland (1996)
- 2005: Aerial Information Systems, Inc. (AIS); adhered to CNPS Vegetation Alliances of Western Riverside County (2005)
- 2012: AIS; adhered to the 2008-second edition of the Manual of CA Vegetation

3-year Pilot Study (2010-2012)

- Purpose:
    - To create a protocol for detecting change in vegetation communities
    - To collect baseline data on acreage, distribution, and current condition
- Chaparral, grassland, coastal sage scrub at 3 locations

- Based on 2005 vegetation map
- Results
    - Vegetation community, functional group, site, and sample size were critical variables
    - Any changes in protocol should be in addition to current protocol
    - Surveys should occur during the same time of year each time
    - 8-year schedule is probably appropriate
    - Considerable time should be spent training staff in protocol and species classification

Riparian Vegetation (2012-2014)

- Protocol developed similar to CA Rapid Assessment Method (CRAM)

Long-term Monitoring Strategy (June 2012)

Outlines a strategy for integrating species and vegetation community monitoring over time

Future

Continue the 10-year GIS vegetation maps
Choose index sites for monitoring vegetation communities
Consider management actions in protocol design
Consider habitat-based monitoring