

**FERC Project No. 14797**  
**Devil Canyon Project**  
***Special-Status Terrestrial Wildlife Species - California Wildlife Habitat Relationships***  
***Study Approach***

**FIELD RESULTS AND DATA SUMMARY**

April 9, 2018

The California Department of Water Resources (DWR) provides the following field results and data summary for the Devil Canyon Project, *Special-Status Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach*, which includes work completed to date, key findings, and associated data files.

**Completed Work:**

DWR has completed all portions of this Study Approach, specifically gathering data and preparing for the field effort, conducting field habitat assessments to evaluate habitat and incidentally document special-status terrestrial wildlife within the Study Area. DWR's methodology followed the *Special-Status Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach*. A summary of completed work is as follows:

- The Special-Status Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach was conducted in parallel with the ESA – Listed Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach.
- Prior to field surveys and ground truthing, a total of 30 randomized locations representing 10 vegetation communities or land cover types were identified (2 Annual Grassland, 2 Barren, 3 Chamise-Redshank Chaparral, 4 Coastal Scrub, 7 Mixed Chaparral, 2 Mixed Hardwood-Conifer, 4 Montane Hardwood, 1 Sierran Mixed Conifer, 2 Urban, and 3 Valley Foothill Riparian).
- Three non-overlapping, 0.1-acre circular plots were sampled at each wooded habitat location, and three non-overlapping, 25-foot by 25-foot square plots were surveyed at each non-wooded (i.e., shrub or herbaceous-dominated) habitat location using the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationship (CWHR) System data forms.
- A single CWHR Habitat Element Checklist datasheet was completed for each of the 30 survey point locations.
- Changes in vegetation boundaries from the CWHR vegetation map were mapped in the field using an iPad, or in the office using ArcGIS.

**Key Accomplishments/Summary of Findings:**

The completed work referenced above resulted in the following:

- The Coastal Oak Woodland (COW) areas were ground-truthed as Montane Hardwood. Vegetation mapping was updated.
- Desert Wash (DSW) and Desert Scrub (DSC) were incorrectly mapped by the Classification and Assessment with Landsat of Visible Ecological Groupings (CalVeg) system and do not occur in the study area. Vegetation mapping was updated and

Annual Grassland (AGS), Coastal Scrub (CSC), and Mixed Chaparral (MCH) plots were sampled at those locations. All areas originally mapped as DSW and DSC were surveyed in their entirety.

- Sagebrush (SGB) was incorrectly mapped by CalVeg and there was not a large enough patch to sample. Vegetation mapping was updated for that area and a MCH plot was surveyed instead.
- Montane Chaparral (MCP) was incorrectly mapped by CalVeg and does not occur in the study area. Vegetation mapping was updated and a MCH plot was surveyed instead.
- Ponderosa Pine (PPN) occurred outside of the Study Area, and was not surveyed. A Montane Hardwood plot was substituted.
- Two special-status terrestrial wildlife species were observed incidental to other studies. A single San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*) was observed along the bike path in Miller Canyon, south of the lake shoreline during botanical surveys. One adult yellow warbler (*Setophaga petechia*) was observed at the West Fork Mojave River during Endangered Species Act bird surveys. The San Bernardino mountain kingsnake is listed as USFS Sensitive when found on NFS lands and is a CDFW watchlist species. Yellow-warbler is a CDFW Species of Special Concern and a USFWS Bird of Conservation Concern.

**Associated Data Files:** (All associated data can be found at the file location below on DWR's Devil Canyon Project Relicensing Website. (<http://devil-canyon-project-relicensing.com/>))

File Name	Data Description	File Type	File Location
20170927_dwr_p147 97_cwhr_survey_gis_data	Survey locations	GIS	Studies/Study-5-Special-Status-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS Data
360 files	Photo points	JPG	Studies/Study-5-Special-Status-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Photos
20171212_dwr_p147 97_devil_canyon_survey_points	Maps of survey points at Devil Canyon	PDF	Studies/Study-5-Special-Status-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS
20171212_dwr_p147 97_cwhr_vegetation_silverwood	Maps of survey points at Silverwood Lake	PDF	Studies/Study-5-Special-Status-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS

20171212_dwr_p147 97_cwhr_vegetation_ devil_canyon	Updated CWHR habitat data map for Devil Canyon	PDF	Studies/Study-5-Special-Status- Terrestrial-Wildlife-Species- California-Wildlife-Habitat- Relationships/Associated Data Files/Maps and GIS
20171212_dwr_p147 97_silverwood_surve y_points	Updated CWHR habitat data map for Silverwood Lake	PDF	Studies/Study-5-Special-Status- Terrestrial-Wildlife-Species- California-Wildlife-Habitat- Relationships/Associated Data Files/Maps and GIS

**Variations from Study Methods, Schedule, Approach, and Abnormalities in Expected Field Conditions:**

The completed work referenced above resulted in the following variations and/or abnormalities in expected conditions:

- See Summary of Findings section above. While ground truthing surveys, certain CWHR types were found to be incorrectly mapped by CalVeg or absent in the Study Area. As a result, additional sampling locations were completed as discussed above.
- Photos were generally taken from the four cardinal directions at the edges of the circular plots and at the four corners of the square plots looking inward towards the plot center, except where site conditions prevented standing at those precise locations (e.g., steep slopes, unstable terrain, etc.). In those instances, photo locations were recorded using electronic devices and on the data sheets.

**Remaining Work:**

The Study is complete.