

FERC Project No. 14797
Devil Canyon Project
ESA-Listed 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, *ESA-Listed 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 the *ESA-Listed Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach*, including gathering data, preparing for the field effort, performing surveys to identify occurrences of *ESA-Listed terrestrial wildlife species* in the Study Area, and assessing and mapping field data. DWR's methodology followed the *ESA-Listed Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach*. A summary of completed work is as follows:

- The *ESA – Listed Terrestrial Wildlife Species – California Wildlife Habitat Relationships Study Approach* was conducted in parallel with the *Special-Status Terrestrial Wildlife Species Study Approach – California Wildlife Habitat Relationships*.
- 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 as part of the Geographic Information System (GIS) data.
- A single CWHR Habitat Element Checklist datasheet was completed for each of the 30 survey point locations as part of the GIS data.
- 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:

- No Endangered Species Act (ESA)-listed wildlife species were observed during the wildlife habitat assessment surveys.

- 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 survey. 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.
- Coastal Oak Woodland (COW) areas were ground-truthed and were determined to be more appropriately mapped as Montane Hardwood (MHW). Vegetation mapping was updated.
- Ponderosa Pine (PPN) occurred outside of the study area, and was not surveyed. A MHW plot was substituted.

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
CWHR_Survey_GIS Data_20170927.gdb	Survey locations	GIS	Studies/Study-6-ESA-Listed-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS Data
360 files	Photo points	JPG	Studies/Study-6-ESA-Listed-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Photos
0171212_dwr_p14797_devil_canyon_survey_points	Maps of survey points at Devil Canyon	PDF	Studies/Study-6-ESA-Listed-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS Data
20171212_dwr_p14797_cwhr_vegetation_silverwood	Maps of survey points at Silverwood Lake	PDF	Studies/Study-6-ESA-Listed-Terrestrial-Wildlife-Species-California-Wildlife-Habitat-Relationships/Associated Data Files/Maps and GIS Data

20171212_dwr_p147 97_cwhr_vegetation_ devil_canyon	Updated CWHR habitat data map for Devil Canyon	PDF	Studies/Study-6-ESA-Listed- Terrestrial-Wildlife-Species- California-Wildlife-Habitat- Relationships/Associated Data Files/Maps and GIS Data
20171212_dwr_p147 97_silverwood_surve y_points	Updated CWHR habitat data map for Silverwood Lake	PDF	Studies/Study-6-ESA-Listed- Terrestrial-Wildlife-Species- California-Wildlife-Habitat- Relationships/Associated Data Files/Maps and GIS Data

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

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

- See Summary of Findings section above. During the 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.