

Davy Brown/Munch Creek Fish Passage Construction Project

2019

Introduction:

The South Coast Habitat Restoration (SCHR) part of the Earth Island Institute's proposed project will remove three perched concrete low flow crossings on Davy Brown and Munch Creeks, which are tributaries to the Sisquoc River within the Los Padres National Forest (LPNF). These crossings are barriers to the federally endangered Southern California steelhead trout (*Oncorhynchus mykiss*) adults and juveniles in northern Santa Barbara County. The project will replace two of the crossings with free span bridges to provide fish passage and safe public access across the creeks. The third crossing will be removed, and the stream regraded to facilitate normal stream hydrology and function. Davy Brown and Munch Creeks have good quality spawning, rearing and over-summering habitat. These streams are tributaries to the Sisquoc River, which is a Core 1 recovery priority in the NOAA Southern California Steelhead Recovery Plan.

The Grantee shall not proceed with on the ground implementation until all necessary permits, consultations, and/or Notice to Proceed are secured.

All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*, Volume I, and Volume II Part XI and Part XII. The Grantee/landowner will maintain the new crossing, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

[\[https://www.wildlife.ca.gov/Grants/FRGP/Guidance\]](https://www.wildlife.ca.gov/Grants/FRGP/Guidance).

Objective(s):

The project would open 3.13 miles of habitat for anadromous Southern California steelhead trout via the removal of three instream barriers to migration. Two barriers are located on Davy Brown Creek and one on Munch Creek. The project will also improve public safety by providing a dry driving surface in all parts of the year.

Project Description:

Location:

The sites of three fish passage barriers are within the Sisquoc River watershed and can be accessed from the town of Santa Ynez, Santa Barbara County by taking Highway 154 south. Turn east onto Armour Ranch Road and continue east on Happy Camp Road for approximately 14 miles, continue straight onto Sunset Valley Road for approximately 4.5 miles. This road crosses each project site.

The three proposed projects are located as follows:

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Lower Sunset Project site is at Latitude 34.77170 W, Longitude -119.94410N just upstream of the confluence of Davy Brown and Manzana Creek;

Upper Sunset Project Site is at Latitude 34.453719 W, Longitude -119.571427 N below the confluence of Munch and Davy Brown Creeks;

Munch Project Site is at Latitude 34.758400 W, Longitude -119.95490 N located just upstream of the confluence of Munch and Davy Brown Creeks.

Each location can be found on the Bald Mountain 7.5 Minute U.S.G.S. Quadrangle, as depicted in the Project Location Map.

Project Set Up: SCHR will manage the projects in partnership with the LPNF. SCHR will manage the bidding, construction, contractors, budgets timelines as well as community outreach with these projects. SCHR Director and Project Manager will be involved with the day to day project management. They will also be involved with invoicing and grant reporting for project. SCHR staff will receive training in CRAM in order to prepare a monitoring plan for the project. SCHR staff will also prepare a long term management plan as a deliverable for the project. Additionally, SCHR and the LPNF will work to monitor the project effectiveness for a period of five years.

Waterway Consulting, a subcontractor, and/or the LPNF inspector, will provide weekly QA/QC reports during construction and these will be submitted to grant manager to ensure project implementation follows project designs. Waterway will also provide as-built surveys once construction of is completed. The as-built surveys will serve as a baseline for any future natural or unnatural perturbations that may occur at the three project sites.

A qualified construction subcontractor will be hired to preform all of the necessary construction operations. The contractor will contract for materials testing and install a dewatering system if needed. Work will take place during the dry season in order to minimize any impacts to stream resources.

The California Conservation Corps (CCC) will harvest any native plant materials from project site prior to mobilization for potential revegetation. They will also assist with sensitive species surveys and installation of sensitive species exclusionary fencing. In addition, once the contractor has completed the majority of stream grading, the CCC will replant as well as plant native plants at each site to improve riparian vegetation. SCHR will work with the CCC to ensure native plantings are establishing at each of the sites and remove any competing non-native vegetation.

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Materials: All materials to be used are included within the budget. SCHR, as the Grantee, will be purchasing the bridges for the two road crossings at Upper and Lower Sunset Valley Road, while the remainder of the materials will be purchased by the subcontractors.

The project materials will consist of two new bridge systems (bridge components, abutments, rails) as well as a roadway material necessary to restore the approaches from the bridges to the existing forest roads. The materials include concrete, gravel, sand, rock/boulders, railings, asphalt, fill material, dewatering system, erosion control material, native plants and planting material, tree stakes, signage and CRAM Training.

Tasks:

Task 1: SCHR Project Management

SCHR will manage the projects in partnership with the LPNF. SCHR will manage the bidding, construction, contractors, budgets timelines as well as community outreach with these projects. SCHR Director and Project Manager will be involved with the day to day project management. SCHR Director and Project Manager will be involved with invoicing and grant reporting for project.

SCHR staff will receive training in CRAM in order to prepare a monitoring plan for the project. SCHR staff will also prepare a long-term management plan as a deliverable for the project. Additionally, SCHR and the LPNF will work to monitor the project effectiveness for a period of five years. Before project may proceed, SCHR, National Fish and Wildlife Foundation (NFWF) and the LPNF must address a number of outstanding items which will be required before the project may proceed towards construction such as Procurement procedures in Forest Service lands, insurance requirements for contractors, Forest Service inspection/oversight of construction and Forest Service construction requirements (fire safety, access, etc.).

Task 2: Implementation and Construction

Project is being planned to begin construction during the 2020 construction season (between the months of August and November). Work will take place during the dry season in order to minimize any impacts to stream resources. As part of this, the following will take place:

- Harvesting of any native plant materials from project site prior to mobilization for potential revegetation.
- Conduct Sensitive species surveys.
- Installation of sensitive species exclusionary fencing.
- Installation of dewatering system (as needed).
- Contractor mobilization and vegetation clearing/grubbing.

- Demolition of instream concrete structures.
- Regrading of stream channel to engineered specifications.
- Excavation for new bridge abutments.
- Building of new bridge abutments and installation of Rock Slope Protection around abutments.
- Inspections by civil, geotechnical and structural engineers of various project phases (including Forest Service engineers).
- Installation of fill material behind abutments and installation of new road approaches.
- Installation of new bridges and rails and any required signage.
- Installation of erosion control measures, revegetation and irrigation at each site in partnership with the CCC.

Task 3: Re-Vegetation and Maintenance

Once the contractor has completed the majority of stream grading, we will work with the California Conservation Corps (CCC) to install native plants at each site to improve riparian vegetation. SCHR will work with the CCC to ensure native plantings are establishing at each of the sites and remove non-native plants. SCHR will work to ensure work is completed with coordination of the appropriate seasons, schedules and timelines for the project. A monitoring report will be developed as a part of this task.

Deliverables: Project specific reporting metrics.

Task 1:

- a. Monthly Invoices and progress reports,
- b. weekly QA/QC reports
- c. draft and final grant reports

Task 2: As Built Survey Drawings.

Task 3:

- a. A native planting plan with name, container size and number planted will be supplied to the California Department of Fish and Wildlife (CDFW), NFWF and the United States Forest Service (USFS).
- b. An Effectiveness Monitoring Plan - SCHR will prepare a monitoring plan for the project. The plan will include baseline assessments as well as an outline of the post project implementation assessments using the Project Tracker and California Rapid Assessment Method (CRAM).
- c. Post Project monitoring reports.

Timelines: The project is anticipated to take two years to construct. The construction window is June 15 to October 31 of each year unless otherwise designated in the project permits. Any delays will be communicated to the

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Grantor's project manager immediately. The following outlines the phases that must be accomplished in order to successfully complete the project.

Task 1: SCHR Project Management - August 2019 to December 2022

Task 2: Implementation and Construction – August 2020 to November 2020 and August 2021 to November 2021;

Task 3: Re-Vegetation and Maintenance – August 2020 to December 2022.

Additional Requirements:

The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured. Work in flowing streams is restricted per the Army Corp of Engineers Regional General Permit. Actual project start and end dates, within this timeframe, are at the discretion of the California Department of Fish and Wildlife.

Any necessary modification to the design that arises during construction must be approved prior to implementation by the Project's design engineers and Marjorie Caisley, CDFW Engineer (916)445-3162. Once the proposed modifications are agreed upon, the CDFW project manager will issue written approval prior to the change being implemented. Failure to do so will result in cancellation of the grant.

No equipment maintenance will be performed within or near the stream channel where pollutants (such as petroleum products) from the equipment may enter the channel via rainfall or runoff. Appropriate spill containment devices (e.g., oil absorbent pads, tarpaulins) will be used when refueling equipment. All equipment will be removed from the streambed and flood plain areas at the end of each workday.

All equipment and gear will be brushed with a stiff brush prior to leaving each stretch of stream to avoid the transport of aquatic invasive species (AIS). When transporting traps out of the area, each numbered trap will be bagged in its own bag to avoid cross contamination during transport in and out of the work area. All crew members will decontaminate equipment and shoes for AIS according to the standards detailed in the California Department of Fish & Wildlife *Aquatic Invasive Species Decontamination Protocol*.

During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

The Grantee shall notify the Grantor Project Manager a minimum of 10 working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Grantor personnel to oversee the implementation of the water diversion plan and the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and

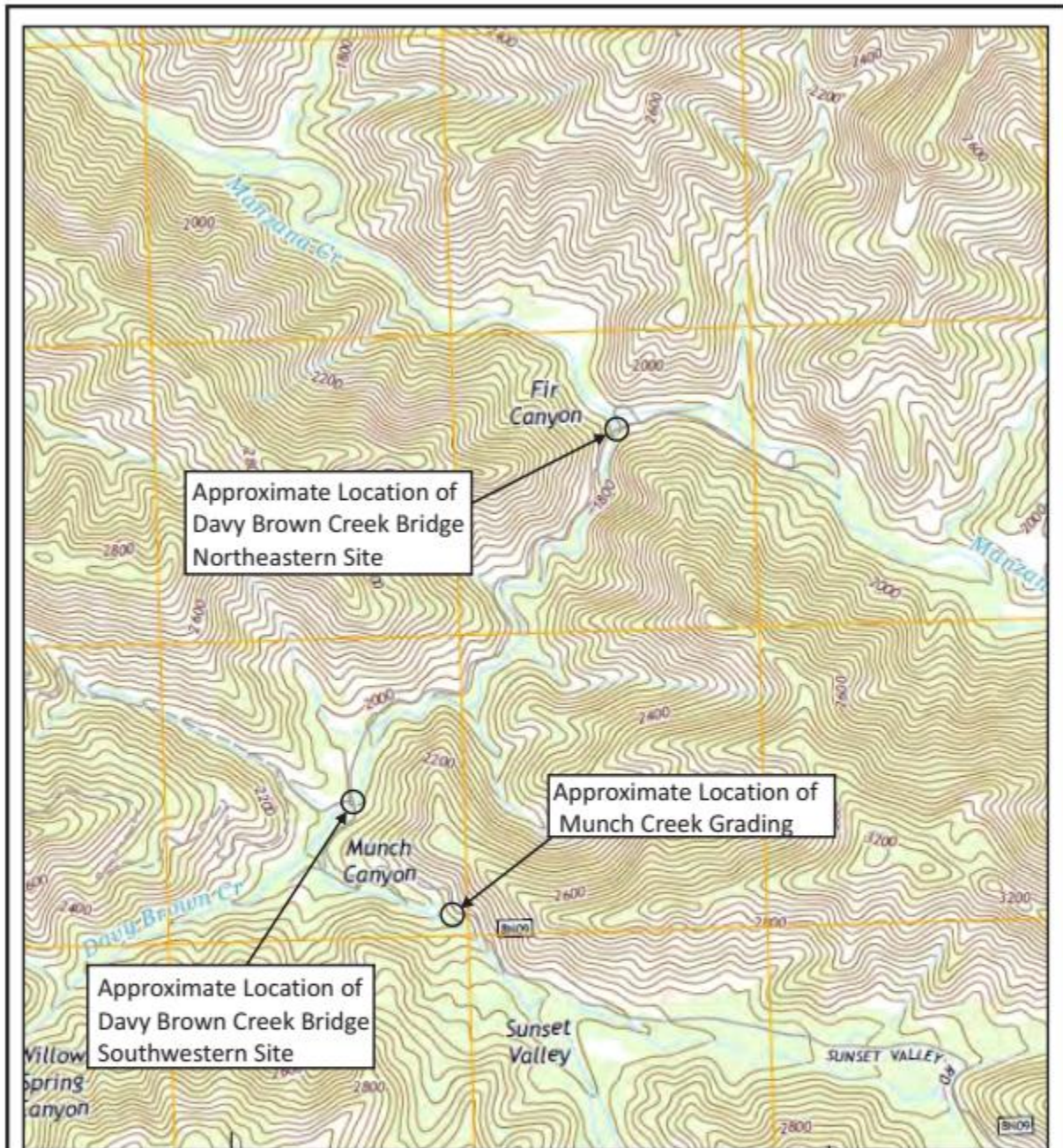
mortality to listed salmonids:

- a. Fish dewatering and relocation activities shall only occur between June 15 and October 31 of each year.
- b. Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Volume II, Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
- c. The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible as approved by the CDFW Grant Manager and pursuant to conditions in the USACE Regional General Permit and NMFS Biological Opinion.
- d. All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000.
- e. USFWS Approved fisheries biologists will provide fish relocation data via the Grantee to the CDFW Grant Manager on a form provided by CDFW.

Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings.

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*Taken from USGS Topo Map, Bald Mountain Quadrangle, California, 2015.

Approximate Scale: 1" = 2,000'

0 2,000' 4,000'



VICINITY MAP

Davy Brown and Munch Creeks Improvements
Los Padres National Forest
California



Earth Systems
Southern California

October 2017

VT-25384-01



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Bald Mountain (3411978) OR Carpinteria (3411945) OR Old Man Mountain (3411954) OR White Ledge Peak (3411944) OR Pitas Point (3411934) OR Santa Barbara (3411946) OR Little Pine Mtn. (3411956) OR Hildreth Peak (3411955) OR Peak Mountain (3411987) OR Hurricane Deck (3411977) OR San Rafael Mtn. (3411967) OR Figueroa Mtn. (3411968) OR Los Olivos (3412061) OR Zaca Lake (3412071) OR Manzanita Mtn. (3412081) OR Bates Canyon (3411988))

Possible species within the Bald Mountain, Carpinteria and their surrounding quads for 3106 Davy Brown - Munch Creek Fish Passage Construction Project, Santa Barbara County

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acanthoscyphus parishii</i> var. <i>abramsii</i> Abrams' oxytheca	PDPGN0J041	None	None	G4?T1T2	S1S2	1B.2
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Agrostis hooveri</i> Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
<i>Allium howellii</i> var. <i>clokeyi</i> Mt. Pinos onion	PMLIL02161	None	None	G4T2	S2	1B.3
<i>Anaxyrus californicus</i> arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Anniella</i> sp. California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i> San Gabriel manzanita	PDERI042P0	None	None	G5T3	S3	1B.2
<i>Arizona elegans occidentalis</i> California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1	1B.1
<i>Atriplex coulteri</i> Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	



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<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Calochortus fimbriatus</i> late-flowered mariposa-lily	PMLIL0D1J2	None	None	G3	S3	1B.3
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa-lily	PMLIL0D122	None	None	G3T2	S2	1B.2
<i>Calochortus simulans</i> La Panza mariposa-lily	PMLIL0D170	None	None	G2	S2	1B.3
<i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	PDCON040E6	None	None	G5TXQ	SX	1A
<i>Caulanthus amplexicaulis</i> var. <i>barbarae</i> Santa Barbara jewelflower	PDBRA0M012	None	None	G4T2	S2	1B.1
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
<i>Chorizanthe blakleyi</i> Blakley's spineflower	PDPGN04030	None	None	G2	S2	1B.3
<i>Cicindela hirticollis grvida</i> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Danaus plexippus</i> pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Delphinium umbraculorum</i> umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
<i>Dipodomys ingens</i> giant kangaroo rat	AMAFD03080	Endangered	Endangered	G1G2	S1S2	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Epidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	



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<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremalche parryi ssp. kernensis</i> Kern mallow	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
<i>Eriophyllum lanatum var. hallii</i> Fort Tejon woolly sunflower	PDAST3N058	None	None	G5T1	S1	1B.1
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Fritillaria ojaiensis</i> Ojai fritillary	PMLIL0V0N0	None	None	G3	S3	1B.2
<i>Gymnogyps californianus</i> California condor	ABNKA03010	Endangered	Endangered	G1	S1	FP
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Layia heterotricha</i> pale-yellow layia	PDAST5N070	None	None	G2	S2	1B.1
<i>Lonicera subspicata var. subspicata</i> Santa Barbara honeysuckle	PDCPR030R3	None	None	G5T2?	S2?	1B.2
<i>Malacothrix saxatilis var. arachnoidea</i> Carmel Valley malacothrix	PDAST660C2	None	None	G5T2	S2	1B.2
<i>Monardella hypoleuca ssp. hypoleuca</i> white-veined monardella	PDLAM180A5	None	None	G4T3	S3	1B.3
<i>Monardella sinuata ssp. sinuata</i> southern curly-leaved monardella	PDLAM18161	None	None	G3T2	S2	1B.2
<i>Nasturtium gambelii</i> Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
<i>Nolina cismontana</i> chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 10</i> steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
<i>Panoquina errans</i> wandering (=saltmarsh) skipper	IILEP84030	None	None	G4G5	S2	



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<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
<i>Pelecanus occidentalis californicus</i> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Quercus dumosa</i> Nuttall's scrub oak	PDFAG050D0	None	None	G3	S3	1B.1
<i>Rallus obsoletus levipes</i> light-footed Ridgway's rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
<i>Scrophularia atrata</i> black-flowered figwort	PDSCR1S010	None	None	G2?	S2?	1B.2
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
<i>Sidalcea hickmanii ssp. parishii</i> Parish's checkerbloom	PDMAL110A3	None	Rare	G3T1	S1	1B.2
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Streptanthus campestris</i> southern jewelflower	PDBRA2G0B0	None	None	G3	S3	1B.3
<i>Taricha torosa</i> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<i>Texosporium sancti-jacobi</i> woven-spored lichen	NLTEST7980	None	None	G3	S1	3
<i>Thamnophis hammondi</i> two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
<i>Thelypteris puberula var. sonorensis</i> Sonoran maiden fern	PPTHE05192	None	None	G5T3	S2	2B.2
<i>Thermopsis macrophylla</i> Santa Ynez false lupine	PDFAB3Z0E0	None	Rare	G1	S1	1B.3



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<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 82