

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

Introduction:

Trout Unlimited, Inc. (TU) will implement the Dutch Charlie Creek Instream Coho Habitat Enhancement Project. Historic timber harvest and stream clearing practices have resulted in a lack of large woody debris (LWD) in stream channels. Insufficient large wood densities lead to homogenous stream habitats that lack sufficient complexity and refuge for salmonids.

The proposed project addresses NOAA Recovery Plan Action Step SONCC-SFER.2.1.1.2: "Place instream structures, guided by assessment results." The 2007 California Department of Fish and Wildlife's (CDFW) Stream Inventory Report denotes the following shelter ratings for riffles, flatwater habitat types, and pools as 19, 27, and 59, respectively, with undercut banks listed as the dominant cover type. This report recommends installing large wood to increase instream habitat complexity. This project will increase habitat complexity and restore geomorphic function in the project area by increasing pool frequency and depth, increasing velocity and temperature refugia, and sorting instream suspended sediments. In 2015, Pacific Watershed Associates (PWA) completed a restoration planning assessment in the Dutch Charlie Creek watershed (Agreement# P1210519). This assessment included an inventory of instream large wood and riparian conditions, and report findings also identified a need for installing large wood instream. This project will help to maintain the geographic distribution of coho salmon (*Oncorhynchus kisutch*) in a system with historically strong populations and a high potential for recovery.

In addition to the selected focus species, coho salmon, this proposal would also benefit steelhead trout (*Oncorhynchus mykiss*). Improving habitat complexity, pool frequency, and pool depth through the installation of large wood would benefit all life stages of salmonids in the Dutch Charlie watershed. As a result, the proposed project also addresses the following task from the NOAA Multispecies Recovery Plan as it pertains to the Northern Coastal Steelhead Diversity Stratum: SFEeR-NCSW-6.1.1.2, "Add structure, as guided by 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 improvement(s) will follow techniques in the *California Salmonid Stream Habitat Restoration* Manual Volume I, Section VII (<https://www.wildlife.ca.gov/Grants/FRGP/Guidance>).

Objective(s):

This project will install 203 pieces of large wood at 96 distinct structure locations in 2.0 miles of high-priority coho salmon recovery habitat in Dutch Charlie Creek. This project will increase stream habitat complexity, pool frequency, pool depth,

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

high-flow refugia, and over-summer rearing habitat for coho salmon and steelhead trout.

Project Description:

Location:

The project area is located approximately 3.5 miles northwest of the town of Branscomb in Mendocino County, CA. Dutch Charlie Creek is a tributary to the South Fork Eel River, approximately 75 river miles upstream of the confluence with the mainstem Eel River.

Project boundaries are: 39.68901 north latitude, -123.67809 west longitude at the downstream end; 39.68878 north latitude, -123.71118 west longitude at the upstream end.

Project Set Up:

The subcontractors for this project have a long history of partnering with Trout Unlimited to successfully complete large wood augmentation projects. Blencowe Watershed Management (BWM) will provide direct oversight of Pacific Inland Incorporated (PII) and California Conservation Corps (CCC) staff to complete the accelerated recruitment portion of the project as designed. Pacific Watershed Associates (PWA) will provide direct oversight for construction of the woven jams with tracked equipment. Staff from the PWA will also provide labor and materials required to complete CEQA compliance surveys.

Task 1: Grant Administration and Project Management

The Trout Unlimited Project Manager will provide all grant and contract oversight and administration tasks including but not limited to obtaining permits, securing contracts (e.g. grantors, subcontractors, landowner, etc.), scheduling, implementation oversight, invoicing, reporting, and agency and landowner communications. All reporting and billing will be pursuant to the grant and regulatory guidelines. Upon final execution of the Grant and prior to receiving a Final Notice to Proceed, deliver the landowner access agreement, subcontracts, and assure all permits are finalized (if required). This task will occur throughout the life of the project. Elizabeth Mackey will be available on a full-time basis to manage this project. Anna Halligan may assist with some aspects of grant management, administration, and project coordination. In addition to the TU Project Manager, the TU California Grants Assistant, Valerie Wasem, will assist with processing invoices and vendor payments, grant tracking, and reporting.

Task 2: Environmental Compliance and CEQA Assessments

PWA staff will complete CEQA assessments and reports required for this project. PWA Paleontologist and Botanist will complete cultural resource investigations, records searches, tribal consultations, and summary reports. The PWA Botanist will complete a floristic survey, CNDDDB records search, and botanical resources reports. The PWA biologist will be available to conduct foothill yellow-legged frog (*Rana boylei*) initial surveys and on-site monitoring work, as needed. The PWA paleontologist will complete the paleontological investigation. Following completion of the interim resource reports, TU will coordinate with CDFW to secure project coverage under the Programmatic Regional General Permit 12 and the Clean Water Act 401 certification. TU will also secure a CDFW 1600 LSAA permit prior to requesting a Notice to Proceed.

Task 3: Pre-Implementation Layout and Surveys

Following CDFW approval, the BWM Project Manager, BWM Technician, and PWA Project Scientist will complete final site layout and flag equipment access routes prior to beginning construction. A pre-implementation effectiveness monitoring survey (e.g. longitudinal profile) will also be completed by both PWA (Project Scientist) and BWM (PM & Technician) per CDFW Restoration manual guidelines and monitoring forms as required by the FLAR focus. CCC Technical Assistant and/or CCC Conservationist I will assist with project layout and pre-implementation surveys of the accelerated recruitment work as needed.

Task 4: Project Implementation

At least 203 pieces of large wood will be installed throughout the project reach. Accelerated recruitment (AR) construction will be directed by the BWM Project Manager (PM) and Technician, and construction of woven jams will be directed by the PWA Professional Geologist and Project Scientist. The Heavy Equipment Contractor, Excavator operator, Dozer operator, and Laborers will mobilize and operate all heavy tracked equipment to place jam wood instream. The BWM Faller will complete all direct falling activities, and the Licensed Timber Operator (PIL) will mobilize and operate all rubber-tired equipment for construction of AR sites. The CCC Laborers and Conservationist I will move, reposition, and/or bolt logs installed for accelerated recruitment at the direction of the BWM PM and Technician.

Task 5: Post-Construction Surveys

Post-construction surveys, including photographic monitoring, wood inventory, documentation of as-built conditions, cross-sections, and post-project longitudinal profile assessments will be performed by PWA, BWM, and CCC staff as required by the grant agreement and required by the FLAR focus. Personnel required to

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

complete this tasks include PWA Project Scientist, BWM Project Manager, BWM Technician, CCC Technical Assistant and/or CCC Conservationist I.

Task 6: Data Management, Invoicing, and Reporting

Pre- and post-project information will be compiled and analyzed in a manner to satisfy requirements of the CDFW Grant Agreement. Project information will be synthesized into Annual Progress Report(s) and a Final Report. The TU Project Manager and TU California Grants Assistant will compile, format, and submit invoices, reports, and a final budget to CDFW according to grant timelines. The PWA Principal, PWA Project Geologist, PWA Project Scientist, PWA Technical Staff, PWA GIS staff, PWA Clerical Staff, BWM Project Manager, BWM Technician, CCC Conservationist I, and CCC Technical Assistant will assist with final data management and reporting tasks.

Materials:

TU mileage: Mileage reimbursement is requested for travel to/from the project site beginning from TU office in Fort Bragg.

TU Supplies: Includes costs associated with field supplies, meeting materials, and reporting supplies. These supplies may include, but are not limited to, flagging, rite-in-the-rain paper, poster board, postage, and external printing services.

TU Permit Fees: Fees for the 1600 LSAA application as required by CDFW BWM Mileage: Mileage required for project site visits.

BWM Supplies: Field materials include, but are not limited to flagging, metal identification tags, nails, rite-in-the rain paper, gloves, and measuring field tapes.

PII Mileage: Mileage required for project site visits.

PII Equipment Mobilization: Transporting the rubber tired tractor in/out of project site.

PII Equipment Operation: A rubber tired tractor and cable winch will be used to retrieve upslope trees and/or facilitate appropriate instream structure orientations.

CCC Corps Member Laborer meals (food): To feed Corps Member crews while on spike.

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

CCC Spike Supplies: Materials needed to prepare food and maintain spike field camp for CCC crews (e.g. charcoal briquettes, propane, etc.)

CCC Portable Toilet Rental: Portable toilets are needed to maintain spike field camp while minimizing environmental impacts.

CCC Generator: Used for operating power equipment used during instream structure anchoring processes.

CCC Rebar: Supply used to anchor instream structures CCC Nuts: Used for anchoring instream structures CCC Washers: Used for anchoring instream structures.

CCC Wood Drill Bits: Used for drilling logs/root-wads/trees during instream structure anchoring process.

CCC Car Wash: Needed for larger tool decontamination.

CCC Tool/Gear Decontamination Chemicals (bulk): Used to decontaminate gear daily and between field sites.

CCC Hand Tools and Supplies: Hand tools needed to install large wood structures that include, but are not limited to chain, bar oil, files, hacksaws, bit extensions, shearpins, GFI, etc.

CCC Safety and First Aid Supplies: Personal protective equipment and First Aid materials for on-site construction that include, but are not limited to gloves, hard hats, and safety glasses.

CCC Tool/Equipment Service/Repair: Required for the service and/or repair of tools used for project implementation such as chainsaws, hand tools, etc.

CCC Office Supplies: Used for creating site designs, work-plans, and reporting. Includes paper, printer supplies, etc.

CCC Mileage: Mileage required for travel to/from project site.

PWA Mulch and Seeds: Erosion control measures PWA Log tong rental: Will be used to procure and position project logs.

PWA Pressure Washer: Heavy equipment decontamination.

PWA Supplies: Field materials may include, but are not limited to flagging, metal identification tags, nails, rite-in-the rain paper, gloves, and measuring field tapes.

PWA Mileage: Travel to/from project site.

PWA Lodging and Per Diem: Overnight and daily travel costs for on-site work.

Anderson Logging Contractor Mileage: Travel to/from project site.

Anderson Logging Mobilization: Costs required for tracked equipment mobilization (low boy and pilot car).

Anderson Logging Contractor Excavator: Necessary to implement woven jam structures.

Anderson Logging Contractor Dozer: Necessary to implement woven jam structures LWD (LRFC): 203 pieces of large wood are required to install structures as designed in this proposal. The landowner (LRFC) will contribute these materials as in-kind cost share.

Tasks:

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reports. The PWA biologist will be available to conduct foothill yellow-legged frog initial surveys and on-site monitoring work, as needed. The PWA paleontologist will complete the paleontological investigation. Following completion of the interim resource reports, TU will coordinate with CDFW to secure project coverage under the Programmatic RGP 12 and 401 certification. TU will also secure a CDFW 1600 LSAA permit prior to requesting a Notice to Proceed.

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Task 5: Post-Construction Surveys

Post-construction surveys, including photographic monitoring, wood inventory, documentation of as-built conditions, cross-sections, and post-project longitudinal profile assessments will be performed by PWA, BWM, and CCC staff as required by the grant agreement and required by the FLAR focus. Personnel required to complete this tasks include PWA Project Scientist, BWM Project Manager, BWM Technician, CCC Technical Assistant and/or CCC Conservationist I.

Task 6: Data Management, Invoicing, and Reporting

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

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Deliverables:

Task 1 - Grant Administration and Project Management: Project deliverables will include the information listed below as well as everything that will be delivered to the CDFW Project Manager during the life of the project: Final Landowner Access Agreements (prior to receiving Notice to Proceed); Executed subcontractor agreements (prior to receiving the Notice to Proceed), and Invoices & Progress Reports (submitted at least quarterly).

Task 2 - Environmental Compliance and CEQA Surveys: Interim Cultural resource, botanical, biological, and paleontological reports (completed prior to receiving Notice to Proceed); Final Cultural resource, botanical, and paleontological reports (to be completed prior to project Final Report); Preparation and payment of CDFW LSAA/1600 Agreement Application (prior to receiving Notice to Proceed).

Task 3 - Pre-Implementation Project Layout and Surveys: Final feature layout and updated feature plans, if necessary; Pre-project longitudinal profile, cross-sections, etc. as required by effectiveness monitoring forms.

Task 4 - Implementation: Construction of 96 sites with at least 203 pieces of large wood.

Task 5 - Post-Implementation Surveys: Actual performance measures by site, as-built drawings, before and after photographs, post-project longitudinal profile and cross sections.

Task 6 - Data Management and Reporting: Progress Reports (pdf format); Annual Reports (pdf format); and Final Grant Report (cd and hard copy), including all pre-and post-project data produced as a part of the project; Final Invoice and Final Budget.

Timelines:

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

Task 1- Grant Administration and Project Management: 04/01/2020 to 03/31/2022.

Task 2 - Environmental Compliance and CEQA Surveys: 04/01/2020 to 09/30/2021.

Task 3 - Pre-Implementation Project Layout and Surveys: 06/01/2020 to 07/01/2021.

Task 4 - Implementation: 07/10/2020 to 10/31/2021.

Task 5 - Post-Implementation Surveys: 11/01/2020 to 02/15/2022.

Task 6 - Data Management and Reporting: 04/01/2020 to 03/31/2022.

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.

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. Any and 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 five 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

Dutch Charlie Creek Instream Coho Habitat Enhancement Project

2019

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 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.

Final structure design and placement will be determined by field consultation between the Grantee and the Grantor Project Managers. All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*.

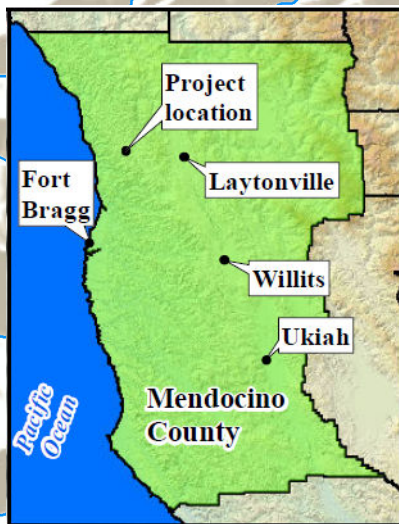
All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings.

Dutch Charlie Creek Instream Habitat Enhancement Project Watershed Map

Mendocino County
Lincoln Ridge 7.5' USGS Quad

1 inch = 4,392 feet

N



Legend

- ◆ Project Start/Stop
- Dutch Charlie Project
- - - Dutch Charlie Watershed
- Mainstem stream
- Other streams

JB 4/10/2019

Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Lincoln Ridge (3912366) OR Tan Oak Park (3912375) OR Cahto Peak (3912365) OR Sherwood Peak (3912355) OR Dutchmans Knoll (3912356) OR Inglenook (3912357) OR Westport (3912367) OR Hales Grove (3912377) OR Leggett (3912376))

Possible species within the Lincoln Ridge and surrounding quads for 3073 Dutch Charlie Creek Instream Coho Habitat Enhancement Project, Mendocino County

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Abronia umbellata</i> var. <i>breviflora</i> pink sand-verbena	PDNYC010N4	None	None	G4G5T2	S2	1B.1
<i>Accipiter gentilis</i> northern goshawk	ABNKC12060	None	None	G5	S3	SSC
<i>Agrostis blasdalei</i> Blasdale's bent grass	PMPOA04060	None	None	G2	S2	1B.2
<i>Alisma gramineum</i> grass alisma	PMALI01010	None	None	G5	S3	2B.2
<i>Anodonta californiensis</i> California floater	IMBIV04020	None	None	G3Q	S2?	
<i>Arboreus pomo</i> Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
<i>Arctostaphylos manzanita</i> ssp. <i>elegans</i> Konocti manzanita	PDERI04271	None	None	G5T3	S3	1B.3
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i> Raiche's manzanita	PDERI041G2	None	None	G3T2	S2	1B.1
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Ascaphus truei</i> Pacific tailed frog	AAABA01010	None	None	G4	S3S4	SSC
<i>Astragalus agnicidus</i> Humboldt County milk-vetch	PDFAB0F080	None	Endangered	G2	S2	1B.1
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Brachyramphus marmoratus</i> marbled murrelet	ABNNN06010	Threatened	Endangered	G3G4	S1	
<i>Brasenia schreberi</i> watershield	PDCAB01010	None	None	G5	S3	2B.3
<i>Calamagrostis crassiglumis</i> Thurber's reed grass	PMPOA17070	None	None	G3Q	S2	2B.1
<i>Calamagrostis foliosa</i> leafy reed grass	PMPOA170C0	None	Rare	G3	S3	4.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Campanula californica</i> swamp harebell	PDCAM02060	None	None	G3	S3	1B.2
<i>Cardamine angulata</i> seaside bittercress	PDBRA0K010	None	None	G4G5	S3	2B.1
<i>Carex lyngbyei</i> Lyngbye's sedge	PMCYP037Y0	None	None	G5	S3	2B.2
<i>Carex saliniformis</i> deceiving sedge	PMCYP03BY0	None	None	G2	S2	1B.2
<i>Carex viridula ssp. viridula</i> green yellow sedge	PMCYP03EM5	None	None	G5T5	S2	2B.3
<i>Castilleja mendocinensis</i> Mendocino Coast paintbrush	PDSCR0D3N0	None	None	G2	S2	1B.2
<i>Ceanothus foliosus var. vineatus</i> Vine Hill ceanothus	PDRHA040D6	None	None	G3T1	S1	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chorizanthe howellii</i> Howell's spineflower	PDPGN040C0	Endangered	Threatened	G1	S1	1B.2
<i>Clarkia amoena ssp. whitneyi</i> Whitney's farewell-to-spring	PDONA05025	None	None	G5T1	S1	1B.1
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Coastal Brackish Marsh</i> Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Collinsia corymbosa</i> round-headed Chinese-houses	PDSCR0H060	None	None	G1	S1	1B.2
<i>Coptis laciniata</i> Oregon goldthread	PDRAN0A020	None	None	G4?	S3?	4.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Entosphenus tridentatus</i> Pacific lamprey	AFBAA02100	None	None	G4	S4	SSC
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eriogonum kelloggii</i> Kellogg's buckwheat	PDPGN083A0	None	Endangered	G2	S2	1B.2
<i>Erysimum concinnum</i> bluff wallflower	PDBRA160E3	None	None	G3	S2	1B.2



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<i>Erysimum menziesii</i> Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
<i>Erythronium revolutum</i> coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Fen</i> Fen	CTT51200CA	None	None	G2	S1.2	
<i>Gilia capitata ssp. pacifica</i> Pacific gilia	PDPLM040B6	None	None	G5T3	S2	1B.2
<i>Gilia millefoliata</i> dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
<i>Grand Fir Forest</i> Grand Fir Forest	CTT82120CA	None	None	G1	S1.1	
<i>Hesperervax sparsiflora var. brevifolia</i> short-leaved evax	PDASTE5011	None	None	G4T3	S2	1B.2
<i>Hesperocyparis pygmaea</i> pygmy cypress	PGCUP04032	None	None	G1	S1	1B.2
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia californica ssp. bakeri</i> Baker's goldfields	PDAST5L0C4	None	None	G3T1	S1	1B.2
<i>Lasthenia californica ssp. macrantha</i> perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Lilium maritimum</i> coast lily	PMLIL1A0C0	None	None	G2	S2	1B.1
<i>Margaritifera falcata</i> western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
<i>Mitellastra caulescens</i> leafy-stemmed mitrewort	PDSAX0N020	None	None	G5	S4	4.2
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
<i>North Central Coast Fall-Run Steelhead Stream</i> North Central Coast Fall-Run Steelhead Stream	CARA2631CA	None	None	GNR	SNR	
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<i>Noyo intersessa</i> Ten Mile shoulderband	IMGASC5070	None	None	G2	S2	
<i>Oenothera wolfii</i> Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1



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<i>Oncorhynchus kisutch</i> pop. 4 coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G4	S2?	
<i>Oncorhynchus mykiss irideus</i> pop. 16 steelhead - northern California DPS	AFCHA0209Q	Threatened	None	G5T2T3Q	S2S3	
<i>Pekania pennanti</i> fisher - West Coast DPS	AMAJF01021	None	Threatened	G5T2T3Q	S2S3	SSC
<i>Phacelia insularis</i> var. <i>continentis</i> North Coast phacelia	PDHYD0C2B1	None	None	G2T2	S2	1B.2
<i>Piperia candida</i> white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	PMPOA4Y070	None	Threatened	G2	S2	1B.1
<i>Potamogeton epihydrus</i> Nuttall's ribbon-leaved pondweed	PMPOT03080	None	None	G5	S2S3	2B.2
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Rana aurora</i> northern red-legged frog	AAABH01021	None	None	G4	S3	SSC
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rhyacotriton variegatus</i> southern torrent salamander	AAAAJ01020	None	None	G3G4	S2S3	SSC
<i>Rhynchospora alba</i> white beaked-rush	PMCYP0N010	None	None	G5	S2	2B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sidalcea malviflora</i> ssp. <i>purpurea</i> purple-stemmed checkerbloom	PDMAL110FL	None	None	G5T1	S1	1B.2
<i>Silene campanulata</i> ssp. <i>campanulata</i> Red Mountain catchfly	PDCAR0U0A2	None	Endangered	G5T3Q	S3	4.2
<i>Taricha rivularis</i> red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thermopsis robusta</i> robust false lupine	PDFAB3Z0D0	None	None	G2	S2	1B.2
<i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
Upland Douglas Fir Forest Upland Douglas Fir Forest	CTT82420CA	None	None	G4	S3.1	
<i>Usnea longissima</i> Methuselah's beard lichen	NLLEC5P420	None	None	G4	S4	4.2



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 82