Cooper Mill Creek Fish Passage & Instream Habitat Improvement Project (Project ID: 1730060) 2023

Introduction:

Location:

Trout Unlimited, Inc. (Grantee) will remove two barriers and restore fish passage for all life stages of salmonids to 3.0 miles of Cooper Mill Creek, and will enhance instream and floodplain habitat. Restoration activities include realignment of the lower channel and confluence with Yager Creek, which includes the installation of rock weirs, log steps, and a roughened channel (lower reach); a series of non-engineered large wood features and a low alcove feature (middle reach); and removing an existing concrete sill and placing engineered wood structures upstream and downstream of the sill location (upper reach).

This project will increase stream habitat complexity, pool frequency, pool depth, and over-summer and winter rearing habitat for juvenile and adult salmonids. Large wood will also provide velocity refugia during winter high flow events. Implementation of this project will directly benefit SONNC Coho Salmon, Chinook Salmon, and Steelhead Trout.

This project is necessary because the CDFG *Recovery Strategy for California Coho Salmon* (2004) lists Cooper Mill Creek as having key populations to maintain or improve. The state recovery strategy suggests that efforts should be made to protect, preserve and increase quality of stream habitat conditions year-round to benefit spawning and juvenile rearing of Coho Salmon.

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* (Part VII, Part IX, Part X, and Part XI https://www.wildlife.ca.gov/Grants/FRGP/Guidance)

Does the project involve the construction of beaver analogs? Yes □ or No ⊠	
Is the project located in a tidally influenced <u>California coastal zone</u> ? Yes □ or No ⊠	
Project Description	

The proposed project is located on Cooper Mill Creek and is 4.2 miles east of Fortuna in Humboldt County, California; Township 2N, Range 1E, and Section 10 of the Hydesville 7.5 Minutes USGS quadrangle map.. Cooper Mill Creek is a tributary to Yager Creek and is located 2.4 miles upstream of the confluence with the Van Duzen River. The Cooper Mill Creek watershed covers a total area of approximately 3.7 square miles. Project coordinates are: 40.56032 ° north latitude, -124.06023 ° west longitude at the center of the project work reach.

Project Set Up:

The Grantee, Trout Unlimited (TU), will manage the project and lead coordination of the Project Team and stakeholders, grant administration, subcontract execution, meeting facilitation, invoicing and reporting.

Humboldt Redwood Company (HRC) will provide access and in-kind professional services and material cost chare (e.g., large wood) towards the proejct. The HRC Fisheries Biologist will support fish relocation activities under the supervision of the CDFW Grant Manager and will conduct post project biological monitoring surveys.

Pacific Watershed Associates (PWA) will provide staff (Geomorphologist, Senior Engineer, Associate Engineer, Engineering Geologist, Senior Scientist, Project Scientist, Staff Fisheries Biologist, CAD Specialist, Clerical) for construction subcontractor selection to assist with aquatic species relocation, engineering oversight and day to day construction management, paleontological investigation for environmental compliance, water quality monitoring, and post project monitoring.

Construction Contractor (TBD) will be selected to lead all construction activities.

Samara Restoration (SR) will provide a Project Biologist and laborers to propogate and replant the disturbed areas with native plant communities as indicated in the design plans.

Kyle Wear (KW) will provide botanical resources support for this project and will conduct a CNDDB database query, botanical field surveys, a wetland delineation and associated mapping and reporting to support environmental compliance.

William Rich and Associates (WRA) will provide cultural resources support for this project including a NW Information Center Records Search, conduct site surveys, coordinate with Native American Tribes, and provide a report detailing site pre-history and history, survey results, and avoidance and minimization measures, if required.

Materials:

Fish Exclusion Fencing,

Rock (various sizes)- Rock will be used to create engineered stream bed material, roughened channel segments, and steps in the channel profile along the lowest stream reaches of the project.

Silt fencing- Silt fence will be used to provide water quality protection by isolating the construction area from any aquatic resource.

Rice straw- Rice straw will be used to provide short term erosion control on disturbed areas.

Anchoring hardware- threaded rod with nuts and plates will be procured to anchor large wood material together and keep it in place.

Jute mat- Jute mat (or equivalent) will be employed in disturbed areas that are likely to be subjected to stream flow such as within bankful.

Logs and trees with and without rootwads will be used throughout the project area and will be used to create geomorphic complexity throughout the project area and will be used to create natural steps in the newly formed channel at the downstream end of Cooper Mill Creek.

Container Plants (various/native) will be procured to replant areas disturbed by construction. The plants will be used to provide medium to long term erosion control and ecologic services.

Tree Guards will be installed to protect container plants from browsing. Mulch/Planting medium will be provied to ensure plant survival and revegetation success.

Tasks:

Task 1 - Environmental Compliance

Grantee will provide proof of any required threatened and endangered species surveys; cultural, archaeological, & paleontological resource surveys; and botanical resource surveys. Staff from WRA, HRC, PWA and a qualified botanical subcontractor will perform CEQA-related resource surveys and Kyle Wear will conduct botanical and wetland Delineations. Grantee will work with PWA and the CDFW Grant Manager to secure a 1600 LSAA permit.

Task 2 - Construction

Construction of the project will be conducted by the selected Construction Contractor (TBD). The Construction Contractor will be responsible for providing all the required heavy equipment, labor, and materials required for project implementation. PWA will provide construction and engineering oversight. PWA will be available (daily) to answer any questions that arise during the construction process or to clarify the intent of the designs. PWA will stake out the project disturbance/clearing and excavation boundaries and set up grade stakes to assure the designs are implemented as stated. Spoil locations and temporary staging areas will be flagged by PWA. During construction PWA staff will be responsible for water quality inspections, confirming final grade, and assuring compliance to the special provisions outlined in the design plans. PWA will supervise the construction and ensure the design specifications are being followed. The construction contractor will follow the design specifications and special provisions for construction of the project as guided by the grade stakes and PWA oversight. The construction contractor will use heavy equipment and laborers to create the designed

features, including rock weirs, log steps, roughened channel, roughness elements, and off channel alcove using the large wood, rock, and associated anchoring materials. This recommended construction sequence is for demolitions and construction involving the immediate stream area and its floodplain. Alternate construction sequences recommended by the contractor may be submitted to the engineer for consideration.

Deliverables:

Task 1: 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 submitting project Final Report); Preparation and payment of CDFW LSAA/1600 Agreement Application (prior to receiving Notice to Proceed).

Task 2: Deliverables include the removal of two fish barriers (cement sills) and three rock weirs. The installation of eight at grade rock weirs, seven log step features, a newly excavated roughened channel, 24 non-engineered large wood structures, 12 engineered log structures, an off-channel alcove with 12 log habitat cover structures and revegetation planting of 1,140 plants.

Timelines:

June 15 through October 31 of the years 2024, 2025, and 2026, Grantee will oversee the implementation of the Project.

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 United States Army Corp of Engineers (USACE) Regional General Permit. Actual project start and end dates, within this timeframe, are at the discretion of the California Department of Fish and Wildlife (CDFW).

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 CDFW 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.

All habitat improvements will follow techniques described in the *California Salmonids* Stream Habitat Restoration Manual, Volume I and Volume II.

The Grantee shall notify the CDFW 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 CDFW 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:

Fish dewatering and relocation activities shall only occur between June 15 and October 31 of each year.

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*.

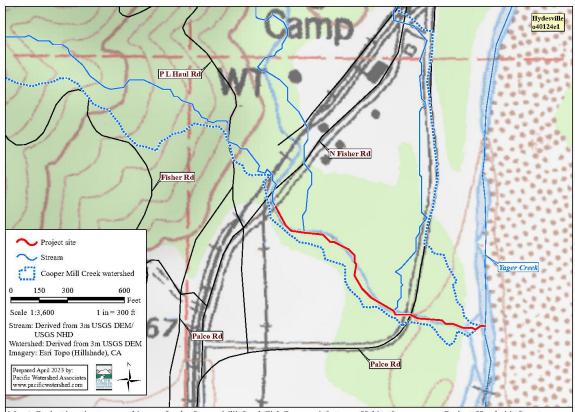
The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible as approved by the CDFW Grant Manager and pursuant to conditions in the USACE Regional General Permit and National Marine Fisheries Service (NMFS) Biological Opinion.

All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the NMFS, Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000.

USFWS Approved fisheries biologists will provide fish relocation data via the Grantee to the CDFW personnel on a form provided by CDFW.

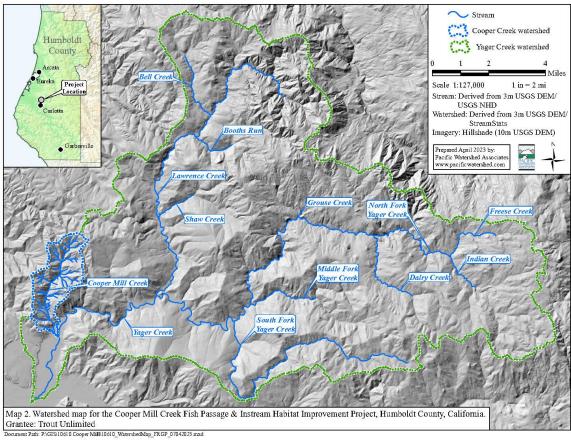
Final structure design and placement will be determined by field consultation between the Grantee and the CDFW Personnel.

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.



Map 1. Project location topographic map for the Cooper Mill Creek Fish Passage & Instream Habitat Improvement Project, Humboldt County, California. Grantee: Trout Unlimited

Document Path: Ph. (ISIS) 10610 Cooper Mill 10610, Project Location Topgraphic Map_FRGP_07042023.mod



CDFW RAREFIND

Query Summary:

Quad IS (Hydesville (4012451) OR Fortuna (4012452) OR Owl Creek (4012358) OR Taylor Peak (4012442) OR Scotia (4012441) OR Redcrest (4012348) OR Fields Landing (4012462) OR McWhinney Creek (4012461) OR laqua Buttes (4012368))

		CNDDB Ele	ment Query Res	ults								
Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia umbellata var. breviflora	pink sand- verbena	Dicots	PDNYC010N4	61	3	None	None	G4G5T2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Coastal dunes
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	6	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC- Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Accipiter striatus	sharp- shinned hawk	Birds	ABNKC12020	22	10	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC- Least Concern	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
Acipenser medirostris pop. 1	green sturgeon - southern DPS	Fish	AFCAA01031	14	1	Threatened	None	G2T1	S1	null	AFS_VU- Vulnerable, IUCN_EN- Endangered	Aquatic, Estuary, Marine bay, Sacramento/San Joaquin flowing waters
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	1	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_EN- Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern	Valley & foothill grassland
Anodonta californiensis	California floater	Mollusks	IMBIV04220	6	1	None	None	G3Q	S2?	null	USFS_S-Sensitive	Aquatic
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	1	None	None	G4	S 3	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Aplodontia rufa humboldtiana	Humboldt mountain beaver	Mammals	AMAFA01017	28	6	None	None	G5TNR	SNR	null	null	Coastal scrub, Redwood, Riparian forest
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	325	7	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC- Least Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub,

Chloropyron maritimum ssp.	Point Reyes salty bird's-	Dicots	PDSCR0J0C3	80	2	None	None	G4?T2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-	Marsh & swamp, Salt marsh,
Charadrius nivosus nivosus	western snowy plover	Birds	ABNNB03031	138	1	Threatened	None	G3T3	S3	null	CDFW_SSC- Species of Special Concern	Great Basin standing waters, Sand shore, Wetland
Charadrius montanus	mountain plover	Birds	ABNNB03100	90	1	None	None	G3	S2	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_NT- Near Threatened, USFWS_BCC-Birds of Conservation Concern	Chenopod scrub, Valley & foothill grassland
Castilleja litoralis	Oregon coast paintbrush	Dicots	PDSCR0D012	44	1	None	None	G3	S3	2B.2	null	Coastal bluff scrub, Coastal dunes, Coastal scrub
Castilleja ambigua var. humboldtiensis	Humboldt Bay owl's- clover	Dicots	PDSCR0D402	31	1	None	None	G4T2	S2	1B.2	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley	Marsh & swamp, Salt marsh, Wetland
Carex leptalea	bristle-stalked sedge	Monocots	PMCYP037E0	8	1	None	None	G5	S1	2B.2	IUCN_LC-Least Concern	Bog & fen, Freshwater marsh, Marsh & swamp, Meadow & seep, Wetland
Carex arcta	northern clustered sedge	Monocots	PMCYP030X0	13	3	None	None	G5	S1	2B.2	IUCN_LC-Least Concern	Bog & fen, North coast coniferous forest, Wetland
Cardamine angulata	seaside bittercress	Dicots	PDBRA0K010	38	1	None	None	G4G5	S3	2B.1	null	Lower montane coniferous forest, North coast coniferous forest, Wetland
Brachyramphus marmoratus	marbled murrelet	Birds	ABNNN06010	110	25	Threatened	Endangered	G3	S2	null	CDF_S-Sensitive, IUCN_EN- Endangered	Lower montane coniferous forest, Oldgrowth, Redwood
Bombus occidentalis	western bumble bee	Insects	IIHYM24252	306	5	None	Candidate Endangered	G3	S1	null	IUCN_VU- Vulnerable, USFS_S-Sensitive	null
Bombus caliginosus	obscure bumble bee	Insects	IIHYM24380	181	6	None	None	G2G3	S1S2	null	IUCN_VU- Vulnerable	null
Ascaphus truei	Pacific tailed frog	Amphibians	AAABA01010	491	6	None	None	G4	S3S4	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern	Aquatic, Klamath/North coast flowing waters, Lower montane coniferous forest, North coast coniferous forest, Redwood, Riparian forest
Ardea herodias	great blue heron	Birds	ABNGA04010	156	7	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Ardea alba	great egret	Birds	ABNGA04040	43	3	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Arborimus pomo	Sonoma tree vole	Mammals	AMAFF23030	222	24	None	None	G3	S3	null	CDFW_SSC- Species of Special Concern, IUCN_NT- Near Threatened	North coast coniferous forest, Oldgrowth, Redwood
												Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland

palustre	beak										California/Rancho Santa Ana Botanic Garden	Wetland
Clarkia amoena ssp. whitneyi	Whitney's farewell-to- spring	Dicots	PDONA05025	8	1	None	None	G5T1	S1	1B.1	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Coastal bluff scrub, Coastal scrub
Coptis laciniata	Oregon goldthread	Dicots	PDRAN0A020	122	3	None	None	G4?	S3?	4.2	null	Meadow & seep, North coast coniferous forest, Wetland
Corynorhinus iownsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	5	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin grassland, Great Basin grassland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland
Downingia willamettensis	Cascade downingia	Dicots	PDCAM060E0	8	4	None	None	G4	S2	2B.2		Cismontane woodland, Valley & foothill grassland, Vernal pool
Egretta thula	snowy egret	Birds	ABNGA06030	20	1	None	None	G5	S4	null		Marsh & swamp, Meadow & seep, Riparian forest, Riparian woodland, Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1477	16	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_VU- Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, South coast standing waters, Wetland
Entosphenus ridentatus	Pacific lamprey	Fish	AFBAA02100	9	3	None	None	G4	S3	null	AFS_VU- Vulnerable, BLM_S- Sensitive, CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters
Erethizon dorsatum	North American porcupine	Mammals	AMAFJ01010	523	10	None	None	G5	S3	null		Broadleaved upland forest, Cismontane woodland, Closed-cone coniferous forest, Lower montane coniferous

												forest, North coast coniferous forest, Upper montane coniferous forest
Erythronium oregonum	giant fawn lily	Monocots	PMLIL0U0C0	37	3	None	None	G5	S2	2B.2	SB_UCSC-UC Santa Cruz	Cismontane woodland, Meadow & seep, Ultramafic
Erythronium revolutum	coast fawn lily	Monocots	PMLIL0U0F0	172	29	None	None	G4G5	S 3	2B.2	SB_UCSC-UC Santa Cruz	Bog & fen, Broadleaved upland forest, North coast coniferous forest, Wetland
Eucyclogobius newberryi	tidewater goby	Fish	AFCQN04010	127	2	Endangered	None	G3	S3	null	AFS_EN- Endangered, IUCN_NT-Near Threatened	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters
Falco peregrinus anatum	American peregrine falcon	Birds	ABNKD06071	73	7	Delisted	Delisted	G4T4	S3S4	null	CDF_S-Sensitive	null
Fissidens pauperculus	minute pocket moss	Bryophytes	NBMUS2W0U0	22	1	None	None	G3?	S2	1B.2	USFS_S-Sensitive	North coast coniferous forest, Redwood
Gilia capitata ssp. pacifica	Pacific gilia	Dicots	PDPLM040B6	91	19	None	None	G5T3	S2	1B.2	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Chaparral, Coastal bluff scrub, Coastal prairie, Valley & foothill grassland
Gilia millefoliata	dark-eyed gilia	Dicots	PDPLM04130	54	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Coastal dunes
Gonidea angulata	western ridged mussel	Mollusks	IMBIV19010	157	1	None	None	G3	S2	null	IUCN_VU- Vulnerable	Aquatic
Haliaeetus leucocephalus	bald eagle	Birds	ABNKC10010	332	1	Delisted	Endangered	G5	S 3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern, USFS_S- Sensitive	Lower montane coniferous forest, Oldgrowth
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Dicots	PDASTE5011	72	1	None	None	G4T3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Coastal bluff scrub, Coastal dunes, Coastal prairie
Lampetra richardsoni	western brook lamprey	Fish	AFBAA02180	4	3	None	None	G4G5	S3S4	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	null
Lasiurus cinereus	hoary bat	Mammals	AMACC05032	238	1	None	None	G3G4	S4	null	IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest
Layia camosa	beach layia	Dicots	PDAST5N010	25	1	Threatened	Endangered	G2	S2	1B.1	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden, SB_SBBG- Santa Barbara Botanic Garden	Coastal dunes, Coastal scrub
Lilium occidentale	western lily	Monocots	PMLIL1A0G0	16	5	Endangered	Endangered	G1G2	S1	1B.1	SB_BerrySB-Berry Seed Bank	Bog & fen, Coastal bluff scrub, Coastal prairie, Coastal scrub, Freshwater marsh, Marsh & swamp, North coast coniferous forest, Wetland

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Lycopodium clavatum	running-pine	Ferns	PPLYC01080	120	34	None	None	G5	S3	4.1	null	Lower montane coniferous forest, Marsh & swamp, North coast coniferous forest, Wetland
Margaritifera falcata	western pearlshell	Mollusks	IMBIV27020	78	1	None	None	G4G5	S1S2	null	IUCN_NT-Near Threatened	Aquatic
Martes caurina humboldtensis	Humboldt marten	Mammals	AMAJF01012	44	2	Threatened	Endangered	G4G5T1	S1	null	CDFW_SSC- Species of Special Concern, USFS_S- Sensitive	North coast coniferous forest, Oldgrowth, Redwood
Mitellastra caulescens	leafy- stemmed mitrewort	Dicots	PDSAX0N020	21	1	None	None	G5	S4	4.2	null	Broadleaved upland forest, Lower montane coniferous forest, Meadow & seep, North coast coniferous forest
Montia howellii	Howell's montia	Dicots	PDPOR05070	123	51	None	None	G3G4	S2	2B.2	null	Meadow & seep, North coast coniferous forest, Vernal pool, Wetland
Myotis volans	long-legged myotis	Mammals	AMACC01110	117	1	None	None	G4G5	S3	null	IUCN_LC-Least Concern	Upper montane coniferous forest
Myotis yumanensis	Yuma myotis	Mammals	AMACC01020	265	2	None	None	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Lower montane coniferous forest, Riparian forest, Riparian woodland, Upper montane coniferous forest
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	PDPLM0C0E1	64	1	None	None	G4T2	S2	1B.1	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Noccaea fendleri ssp. californica	Kneeland Prairie pennycress	Dicots	PDBRA2P041	1	1	Endangered	None	G5?T1	S1	1B.1	SB_UCSC-UC Santa Cruz	Broadleaved upland forest, Coastal prairie, Ultramafic
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	CTT52110CA	53	1	None	None	G3	S3.2	null	null	Marsh & swamp, Wetland
Nycticorax nycticorax	black- crowned night heron	Birds	ABNGA11010	37	3	None	None	G5	S4	null	IUCN_LC-Least Concern	Marsh & swamp, Riparian forest, Riparian woodland, Wetland
Oncorhynchus clarkii clarkii	coast cutthroat trout	Fish	AFCHA0208A	45	5	None	None	G5T4	S3	null	AFS_VU- Vulnerable, CDFW_SSC- Species of Special Concern, USFS_S- Sensitive	Aquatic, Klamath/North coast flowing waters
Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	Fish	AFCHA02032	10	3	Threatened	Threatened	G5T2Q	S2	null	AFS_TH- Threatened	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters
Oncorhynchus mykiss irideus pop. 48	steelhead - northern California DPS summer-run	Fish	AFCHA0213P	10	4	Threatened	Endangered	G5T2Q	S2	null	AFS_TH- Threatened	Aquatic, Estuary, Klamath/North coast flowing waters
Oncorhynchus mykiss irideus pop. 49	steelhead - northern California DPS winter- run	Fish	AFCHA0213Q	96	10	Threatened	None	G5T3Q	S3	null	AFS_TH- Threatened	Aquatic, Estuary, Klamath/North coast flowing waters
Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	Fish	AFCHA0205S	1	1	Threatened	None	G5T2Q	S2	null	AFS_TH- Threatened	Aquatic, Sacramento/San Joaquin flowing waters

Packera polanderi var. polanderi	seacoast ragwort	Dicots	PDAST8H0H1	72	36	None	None	G4T4	S2S3	2B.2	null	Coastal scrub, North coast coniferous forest
Pandion naliaetus	osprey	Birds	ABNKC01010	504	65	None	None	G5	S4	null	CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC- Least Concern	Riparian forest
Pekania pennanti	Fisher	Mammals	AMAJF01020	555	2	None	None	G5	S2S3	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	North coast coniferous forest, Oldgrowth, Riparian forest
Piperia candida	white- flowered rein orchid	Monocots	PMORC1X050	222	7	None	None	G3?	S3	1B.2	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Lower montane coniferous forest, North coast coniferous forest, Ultramafic
Platismatia acunosa	crinkled rag lichen	Lichens	NLLEC2Q010	4	1	None	None	G4	S1	2B.3	null	North coast coniferous forest, Riparian woodland
Plethodon elongatus	Del Norte salamander	Amphibians	AAAAD12050	151	1	None	None	G4	S3	null	CDFW_WL-Watch List, IUCN_NT-Near Threatened	Oldgrowth
Polemonium carneum	Oregon polemonium	Dicots	PDPLM0E050	16	1	None	None	G3G4	S2	2B.2	null	Coastal prairie, Coastal scrub, Lower montane coniferous forest
Rana aurora	northern red- legged frog	Amphibians	AAABH01021	292	31	None	None	G4	S3	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	Klamath/North coast flowing waters, Riparian forest, Riparian woodland
Rana boylii oop. 1	foothill yellow-legged frog - north coast DPS	Amphibians	AAABH01051	1608	49	None	None	G3T4	S4	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, USFS_S- Sensitive	Aquatic, Klamath/North coast flowing waters, Riparian forest, Riparian scrub, Riparian woodland
Rhyacotriton variegatus	southern torrent salamander	Amphibians	AAAAJ01020	416	16	None	None	G3?	S2S3	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S-Sensitive	Lower montane coniferous forest, Oldgrowth, Redwood, Riparian forest
Riparia riparia	bank swallow	Birds	ABPAU08010	299	4	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Sidalcea malachroides	maple-leaved checkerbloom	Dicots	PDMAL110E0	136	60	None	None	G3	S3	4.2	null	Broadleaved upland forest, Coastal prairie, Coastal scrub, North coast coniferous forest, Riparian forest
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	Dicots	PDMAL110F9	60	14	None	None	G5T2	S2	1B.2	SB_UCSC-UC Santa Cruz	Coastal bluff scrub, Coastal prairie, North coast coniferous forest
Sidalcea oregana ssp. eximia	coast checkerbloom	Dicots	PDMAL110K9	19	4	None	None	G5T1	S1	1B.2	null	Lower montane coniferous forest, Meadow & seep, North coast coniferous forest, Wetland
Spergularia canadensis var. occidentalis	western sand-spurrey	Dicots	PDCAR0W032	4	1	None	None	G5T4	S1	2B.1	null	Marsh & swamp, Wetland
Spirinchus thaleichthys	longfin smelt	Fish	AFCHB03010	46	4	Candidate	Threatened	G5	S1	null	IUCN_LC-Least Concern	Aquatic, Estuary
Thaleichthys pacificus	eulachon	Fish	AFCHB04010	10	1	Threatened	None	G5	S1	null	IUCN_LC-Least Concern	Aquatic, Klamath/North coast flowing waters
Upland Douglas Fir	Upland Douglas Fir	Forest	CTT82420CA	15	1	None	None	G4	S3.1	null	null	North coast coniferous forest

Forest	Forest											
Usnea longissima	Methuselah's beard lichen	Lichens	NLLEC5P420	206	107	None	None	G4	S4	4.2	BLM_S-Sensitive	Broadleaved upland forest, North coast coniferous forest, Oldgrowth, Redwood