Chimney Rock Creek Instream Habitat Restoration Project *(Project ID:* ***1727864****)*
2022

Introduction:

Trout Unlimited Inc. (Permittee) will install 188 key pieces of wood at 52 sites in 1.7 miles (8,976 feet) of instream habitat in Chimney Rock Creek, tributary to Usal Creek. This project will increase stream habitat complexity, pool frequency, pool depth, and over-summer rearing habitat for salmonids. Large wood also provides velocity refugia during winter high flow events. Implementation of this project will directly benefit CCC Coho Salmon and Steelhead Trout by enhancing the quality of instream habitats for all life stages in Chimney Rock Creek. Instream large wood is known to assist with sorting and storage of stream gravels, as well as pool formation associated with bed scour. Studies have shown that pool formation associated with large wood can increase the quality and quantity of instream habitats for salmonids, which has been positively linked to survival rates. The existing quantity of key LWM pieces currently in Chimney Rock Creek is 221 pieces including 46 key pieces of large wood.This project will increase the overall density of key pieces in Chimney Rock Creek to 246 pieces/mile, or ~15 pieces/100 meters for small channels (1-10m average BFW). This would result in reaching the "Very Good" target rating according to the NFMS CCC Coho Recovery Plan 2012 (11+ key pieces per 100m).

This project is necessary due to legacy impacts of timber operations, along with subsequent stream clearing practices, which have left the Chimney Rock Creek channel with sub-optimal habitat conditions for salmonids. In the 1970s, Usal Creek and its tributaries were also cleared of large woody debris (LWD) that had originated from both natural recruitment and logging debris. This clearing of wood was considered a restoration practice at the time to prevent barriers to fish migration and to increase navigability of stream channels, but unfortunately resulted in oversimplified channel conditions

The Permittee 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

Does the project involve the construction of beaver analogs?
Yes ☐ or No ☒

Is the project located in a tidally influenced California coastal zone?
Yes ☐ or No ☒

Objective(s):
This project will install 188 key pieces of wood at 52 sites in 1.7 miles of instream habitat in Chimney Rock Creek, tributary to Usal Creek. This project will increase stream habitat complexity, pool frequency, pool depth, and over-summer rearing habitat for salmonids. Large wood also provides velocity refugia during winter high flow events.

Project Description:

Location:
The Chimney Rock Creek Watershed is located west of Leggett, CA in the Usal Creek Watershed. Chimney Rock Creek intersects the North Fork (NF) of Usal Creek approximately 5.4 miles upstream of its confluence with the Pacific Ocean. The project reach begins near the confluence with NF Usal Creek and extends upstream approximately 1.7 miles (8,976 feet) to the confluence of the North Fork and South Fork. The project is located in the Piercy 7.5 Minute U.S. Geological Survey Quadrangle map, Townships 23 and 24 North, Range 18 West, and Sections 3 and 34. Project coordinates are: 39.88412º north latitude, -123.84866º west longitude at the center of the project work reach on mainstem Chimney Rock Creek.

Project Set Up:

The Permittee Project Manager will provide all grant and contract oversight and administration tasks including but not limited to obtaining permits, securing contracts (e.g. Premitees, subcontractors, landowner, etc.), project scheduling, implementation oversight, invoicing, reporting, and agency and landowner communications and coordination. 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, Project Manager will deliver the landowner access agreement, subcontracts, and assure all permits are finalized. This task will occur throughout the life of the project.

Pacific Watershed Associates (PWA) Associate Scientist and Principal Geologist will lead the construction of features. Project Scientists and Staff Scientists will provide project layout and construction oversight. Associate Scientist and Project Scientist will manage project layout, construction oversight, monitoring, and reporting. Staff Scientists will conduct surveys, complete layout, provide construction oversight, and complete monitoring work pre-, during-, and post-project and any data entry. GIS staff will provide field layout maps, digitize layout and as-built project data, and develop report maps. Natural Resource Specialists will identify and provide avoidance measures for wetlands, survey for and develop plans to protect fish and amphibians at the spittler crossing, and monitor water quality during excavation of live streams.

Senior Scientist will conduct the Paleontology review for CEQA. All PWA work elements will be supervised by a PWA Principal.

William Rich and Associates (WRA) Principal Investigator and Research Associate will conduct the required cultural/archaeological surveys in compliance with the California Environmental Quality Act and its guidelines.

Woodbenders Revegetation (Woodbenders) will conduct revegetation.

Joe C. Rice will be the heavy equipment contractor for the project providing all heavy equipment including Excavator, Dozer, Low Boy, Pilot Car.

Sawyer (Tree Faller provided by Joe C. Rice), labor for erosion control and feature anchoring, and truck and trailer.

Redwood Forest Foundation, Inc. (RFFI) will provide project access, cost share to facilitate project completion, in-kind revegetation materials and large woody debris (e.g. logs, trees) necessary to complete the project.

Botanical Subcontractor (TBD) will conduct a botanical resource assessment and wetland delineation (if required) of the project area including a one bloom window floristic survey, lab time to analyze and identify any samples collected, and producing a final report.

Materials:

RFFI will be providing approximately 350 trees (in-kind cost share) will be planted by Woodbenders laborers.
RFFI will be providing 188 LWM pieces (avg. length 40' x 1.75' diameter) of Douglas-fir (Pseudotsuga menziesii) and coastal redwood (Sequoia sempervirens) as in-kind cost share.
RFFI will be providing 10 cubic yards of rock for temporary crossings as in-kind cost share.
RFFI will be providing 45 logs as in-kind cost share to build temporary crossings during road opening.
Joe C. Rice - Rice Straw: Approximately 35 bales of straw mulch.
Joe C. Rice - Native Seed: Approximately 7 pounds of native seed.
Joe C. Rice - Culvert: Rice will provide 500 feet of 6 inch diameter flex pipe for stream dewatering to assure water quality protection in active construction areas, and 60 feet of 30 inch diameter culvert to construct temporary Spittler crossings.
Joe C. Rice - Pressure washer: A (hot water) pressure washer will be used to decontaminate heavy equipment between each use in different waterbodies and watersheds to prevent the spread of invasive species as per the equipment decontamination methods stated in the attached decontamination protocol.

Joe C. Rice - Geotextile: Material will be used during construction to minimize erosion.
Joe C. Rice – will provide Heavy Equipment including Excavator, Dozer, Pilot Car, Lowboy. Sawyer (tree faller) and Labor will be provided by Joe C. Rice
- PWA - Anchoring hardware: Includes rebar, nuts, plates. Materials required for anchoring structures.
- PWA - Fish exclusion fencing: Required for fish exclusion and relocation efforts.
- PWA - E-Fishing supplies: E-fishing nets, aquarium dip nets, aerators, buckets, measuring board.
- PWA - E-Fisher to complete fish exclusion within construction areas.
- PWA - Log tongs to facilitate the process of LWM installation.
- PWA - Hole Hawg & portable generator will be used for structure anchoring (including extension cord and gasoline for generator).
- PWA - Water quality meter and turbidity meter rentals to be used during road opening to ensure compliance with the Water Quality Monitoring Plan and permitting requirements.

Tasks:

Task 1 - Environmental Compliance
Permittee will provide proof of any required threatened and endangered species surveys; cultural, archaeological, & paleontological resource surveys; and botanical resource surveys. Staff from WRA, RFFI, PWA and a qualified botanical subcontractor will perform CEQA-related resource surveys. Permittee will work with PWA and the CDFW Grant Manager to secure a 1600 LSAA permit.

Task 2.1- Resource Surveys Documentation & Permits
The Permittee Project Manager will provide proof all required threatened and endangered species surveys, biological monitoring, and required reasonable measures to cultural, archeological, paleontological, and biological resources, including native species and their habitat have been completed. Permittee will subcontract with WRA to conduct the appropriate surveys and reports for archeological resources. PWA will conduct the paleontological review of the project area and will provide this report to the Permittee.

Permittee will be responsible for securing the CDFW 1600 LSAA from the Grant Manager. Following Permittee's procurement policies, Permittee will secure a qualified botanical subcontractor. Permittee will work with the qualified subcontractor to conduct the botanical and wetland delineations (if necessary) and will coordinate with RFFI staff on current NSO nesting activity.

Permittee will conduct nesting migratory bird surveys if construction begins before August 1. Interim CEQA reports and biotic survey results will be provided

to the CDFW Grant Manager with the LSAA application as required. No equipment work shall occur in advance of the final NTP

Task 2.2 - Water Quality Monitoring Documentation
Permittee will provide a water quality monitoring plan and associated data to the North Coast Regional Water Quality Control Board for construction activities associated with dewatering waterways. Permittee and its subcontractors will monitor and report water quality during dewatering activities. Parameters, such as dissolved oxygen, temperature, conductivity, and turbidity may be reported.

Task 3 Pre-Project Layout and Equipment Mobilization
Following approval by CDFW of site-specific design plans, PWA will flag heavy equipment access routes, construction boundaries, equipment exclusion areas and LWM staging areas. PWA will also document the existing conditions at the proposed feature locations and setup photo point monitoring stations at the construction locations for final reporting. Pre-construction documentation and monitoring will be performed by PWA in a manner consistent with CDFW guidelines and requirements for projects of this type. Permittee will coordinate with the CDFW Grant Manager prior to construction to conduct a pre-construction field visit and to secure the final Notice to Proceed.

Task 4 - Construction
PWA staff will be responsible for executing and overseeing project implementation in the field and providing direct construction management and technical oversight. PWA staff will be responsible for conducting water quality monitoring and fish relocation during all in-water work. Joe C. Rice will complete the equipment operation and labor tasks. Joe C. Rice will install 52 large wood (LW) features over a 1.6-mile stream reach, containing approximately 188 "key" and "large" wood pieces. Wood will be woven into the existing riparian corridor and pre-racked with small woody debris. Hardware anchors will be used where required. All construction activities will occur during low flow conditions and are estimated to last 40 days.

The construction process will begin with developing access to the project area. Two separate access routes will need to be developed to complete the project because of a large landslide in the upper half of the project area. The access development for this project will also provide access for the companion HU proposal (#1727863). Access for the project will require crossing class I streams three times. One of the crossings will include installation of a seasonal bridge over the South Fork (SF) Eel. Fish and amphibians surveyed at this site will be crowded away from the construction area prior to the bridge installation. Two other crossings (temporary Spittler crossings) are proposed over the North Fork Usal Creek to access the lower portions of Chimney Rock Creek watershed. These two crossings will require electrofishing during fish and amphibian relocation to assure protection of the species. The project team will follow all

guidelines in Part IV of the California Salmonid Stream Habitat Restoration Manual.
Most of the LW features will be constructed using heavy equipment, but in 17 locations the features will be constructed by direct falling of trees. In general, the excavator and bulldozer will be used to create access routes to the proposed LW feature locations and construct these LW structures using logs supplied from areas near the road and skid alignments that will be decommissioned in the companion HU proposal. The features will be constructed with an excavator with a log tong attachment. To conduct the installation, the excavator and bulldozer will create access to the streamside area and the excavator will install/place the logs while the dozer will deliver logs to the construction site from the adjacent road. The excavator will grapple each log with the log tongs and weave it through the existing riparian forest to wedge the log through the riparian trees for natural anchoring of the features.

In some locations, where equipment access is limited, trees will be incorporated into the creek by direct falling by a Sawyer subcontracted by Joe Rice. All trees to be felled will be selected under the direct supervision of a RFFI Forester and the CDFW Grant Manager. Where prudent, small and medium sized tree fragments that do not meet the criteria for "key logs" or "large woody debris" will be incorporated into the spider jams as pre-racked and loose material. These racked and loose logs/branches will reduce the spider jams porosity and more closely mimic naturally developed wood features.

Once the primary architecture of the features has been completed, PWA and the CDFW project manager will determine if hard anchor points will be required at each of the constructed features. Hard anchor points, where needed, will be installed by Joe C. Rice. Exact locations will be "field fit" once the key logs have been installed.

After the CDFW Project Manager approves of the final configuration and anchoring of each of the LWM features, the excavator and dozer will winterize each feature access point and route by decompacting the disturbed ground surface and mulching all bare areas with wood slash and or straw. Native erosion control seed will be spread in the bare areas to provide short to medium term erosion control if prudent. 350 native tree species will be planted in the disturbed areas.

Task 5 Post Construction Surveys and Revegetation
Post-construction monitoring, including photographic monitoring and documentation of as- built conditions, will be performed by PWA consistent with the CDFW guidelines to include a First Winter Observation Survey. As-built drawings will include structure placement and alignment, representative cross sections and longitudinal profiles on a subset of the features, and the sizes and quantity of materials added. Additionally, the project team will conduct a post-construction/post first winter evaluation of all instream features, focusing on

feature characteristics relative to the as-built conditions as well as documenting any post construction adjustments

Deliverables:

Installation of 188 key pieces of project wood at 52 distinct structure sites. Fish Relocation/Dewatering Forms, and Notice to Proceed

As-built drawings, photographic monitoring data, post project longitudinal profile, cross sections on subset of features. Native seed will be distributed in the bare areas to provide short to medium term erosion control. Trees (Sequoia sempervirens) will also be planted in disturbed areas as required. Woodbenders will complete planting activities in the winter following construction.

Timelines:

Task 1 Environmental Compliance
April 28, 2023, to October 31, 2025

Task 2.1- Resource Surveys Documentation
May 1, 2023 to June 1, 2024

Task 2.2 - Water Quality Monitoring Documentation
June 15, 2024 to October 31, 2025

Task 3 Pre-Project Layout and Equipment Mobilization
May 1, 2023 to May 31, 2024

Task 4 - Construction
June 15, 2024 to October 31, 2025

Task 5 - Post Construction Surveys and Revegetation
November 3, 2025 to January 15, 2027

Additional Requirements:

The Permittee 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.

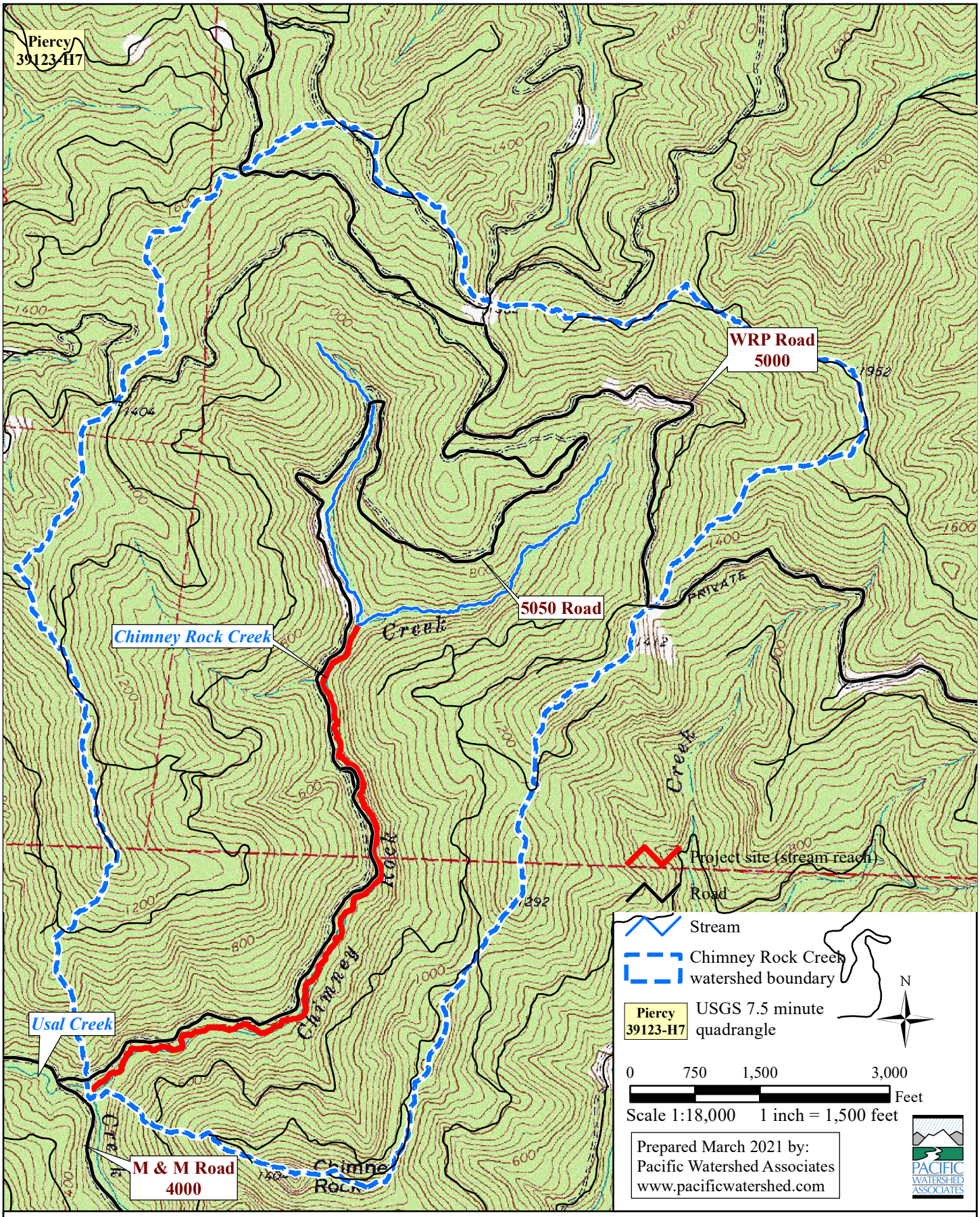
All habitat improvements will follow techniques described in the *California Salmonids Stream Habitat Restoration Manual*, Volume I and Volume II.

The Permittee 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 Permittee will implement the following measures to minimize harm and mortality to listed salmonids:

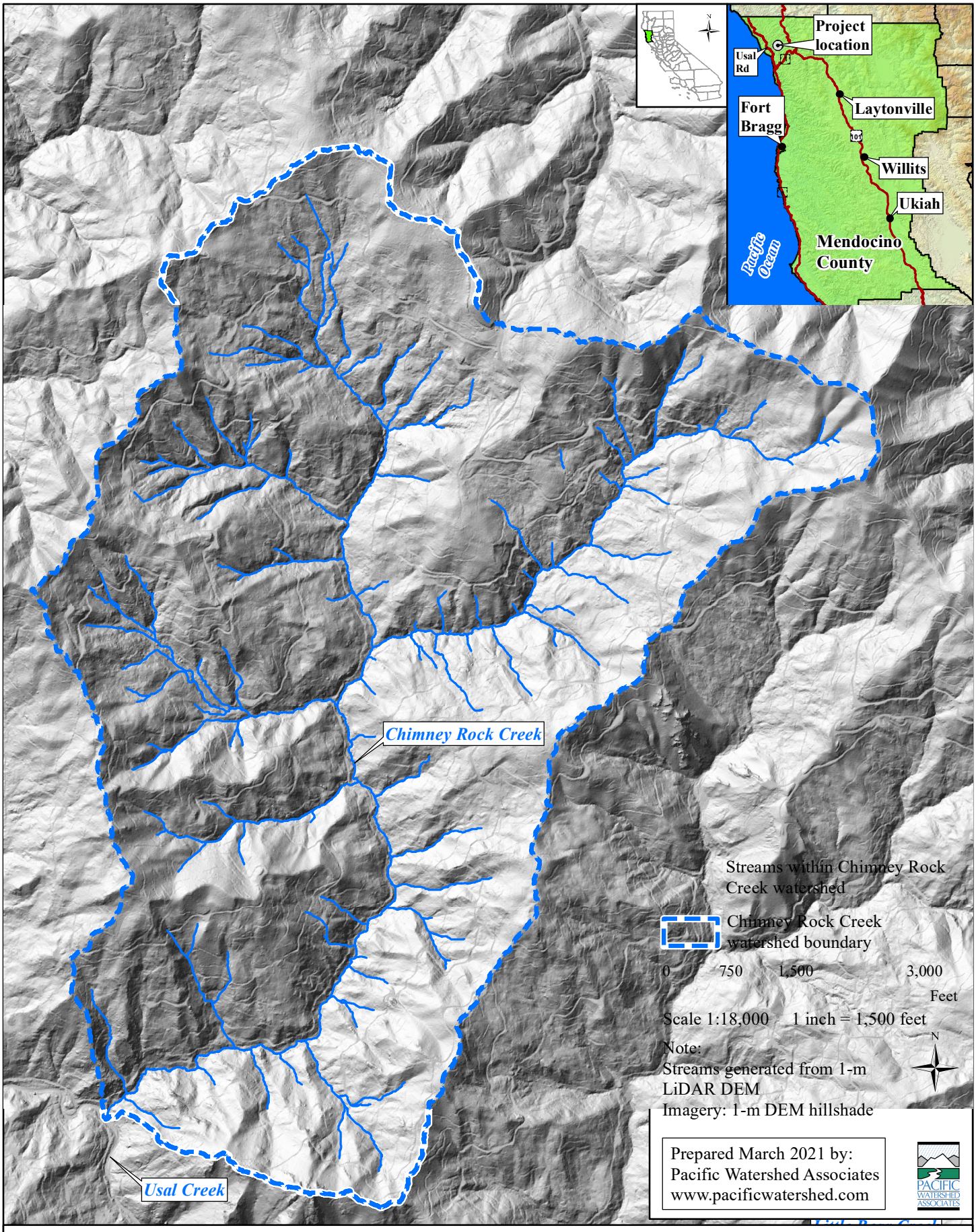
a. Fish dewatering and relocation activities shall only occur between June 15 and October 31 of each year.
b. Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California 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 National Marine Fisheries Service (NMFS) Biological Opinion.
d. 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.

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

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



Map 1. Project Location Topographic Map for the Chimney Rock Creek Instream Habitat Enhancement Project, Mendocino County, California. (Piercy USGS 7.5' topographic quadrangle)
Grantee/Applicant: Trout Unlimited



Map 2. Watershed map for the Chimney Rock Creek Instream Habitat Enhancement Project, Mendocino County, California. Grantee/Applicant: Trout Unlimited

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

Query Summary:
Quad IS (Piercy (3912387) OR Bear Harbor (3912388) OR Noble Butte (3912386) OR Mistake Point (3912378) OR Hales Grove (3912377) OR Leggett (3912376) OR Briceland (4012318) OR Garberville (4012317) OR Harris (4012316))

Print Close

CNDDB Element Query Results

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
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Accipiter gentilis	northern goshawk	Birds	ABNKC12060	433	1	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	North coast coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest
Anodonta californiensis	California floater	Mollusks	IMBIV04220	6	1	None	None	G3Q	S2?	null	USFS_S-Sensitive	Aquatic
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	2	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	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
Arabis mcdonaldiana	McDonald's rockcress	Dicots	PDBRA06150	27	5	Endangered	Endangered	G3	S3	1B.1	SB_BerrySB-Berry Seed Bank, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Lower montane coniferous forest, Ultramafic, Upper montane coniferous forest
Arborimus pomo	Sonoma tree vole	Mammals	AMAFF23030	222	6	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	North coast coniferous forest, Oldgrowth, Redwood
Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	Dicots	PDERI041G2	13	2	None	None	G3T2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Chaparral, Lower montane coniferous forest, Ultramafic
Ascaphus truei	Pacific tailed frog	Amphibians	AAABA01010	491	10	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
Astragalus agnicidus	Humboldt County milk-vetch	Dicots	PDFAB0F080	69	7	None	Endangered	G2	S2	1B.1	SB_BerrySB-Berry Seed Bank, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, North coast coniferous forest
Bombus caliginosus	obscure bumble bee	Insects	IIHYM24380	181	4	None	None	G2G3	S1S2	null	IUCN_VU-Vulnerable	null

Bombus occidentalis	western bumble bee	Insects	IIHYM24250	306	6	None	None	G2G3	S1	null	USFS_S-Sensitive	null
Calamagrostis foliosa	leafy reed grass	Monocots	PMPOA170C0	22	2	None	Rare	G3	S3	4.2	null	Coastal bluff scrub, North coast coniferous forest
Cardamine angulata	seaside bittercress	Dicots	PDBRA0K010	38	1	None	None	G4G5	S3	2B.1	null	Lower montane coniferous forest, North coast coniferous forest, Wetland
Carex arcta	northern clustered sedge	Monocots	PMCYP030X0	13	1	None	None	G5	S1	2B.2	IUCN_LC-Least Concern	Bog & fen, North coast coniferous forest, Wetland
Castilleja litoralis	Oregon coast paintbrush	Dicots	PDSCR0D012	44	7	None	None	G3	S3	2B.2	null	Coastal bluff scrub, Coastal dunes, Coastal scrub
Castilleja mendocinensis	Mendocino Coast paintbrush	Dicots	PDSCR0D3N0	52	2	None	None	G2	S2	1B.2	BLM_S-Sensitive	Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub
Ceanothus foliosus var. vineatus	Vine Hill ceanothus	Dicots	PDRHA040D6	6	1	None	None	G3T1	S1	1B.1	null	Chaparral
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 townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	3	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1404	3	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, Wetland
Erethizon dorsatum	North American porcupine	Mammals	AMAFJ01010	523	5	None	None	G5	S3	null	IUCN_LC-Least Concern	Broadleaved upland forest, Cismontane woodland, Closed-cone

												coniferous forest, Lower montane coniferous forest, North coast coniferous forest, Upper montane coniferous forest
Eriogonum kelloggii	Kellogg's buckwheat	Dicots	PDPGN083A0	7	7	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Lower montane coniferous forest, Ultramafic
Erythronium revolutum	coast fawn lily	Monocots	PMLIL0U0F0	172	4	None	None	G4G5	S3	2B.2	null	Bog & fen, Broadleaved upland forest, North coast coniferous forest, Wetland
Eumetopias jubatus	Steller sea lion	Mammals	AMAJC03010	38	2	Delisted	None	G3	S2	null	IUCN_EN-Endangered, MMC_SSC-Species of Special Concern	Marine intertidal & splash zone communities, Protected deepwater coastal communities, Rock shore
Gentiana setigera	Mendocino gentian	Dicots	PDGEN060S0	11	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Ultramafic, Wetland
Gilia capitata ssp. pacifica	Pacific gilia	Dicots	PDPLM040B6	91	1	None	None	G5T3	S2	1B.2	null	Chaparral, Coastal bluff scrub, Coastal prairie, Valley & foothill grassland
Hesperocyparis pygmaea	pygmy cypress	Gymnosperms	PGCUP04032	37	1	None	None	G1	S1	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Closed-cone coniferous forest
Horkelia marinensis	Point Reyes horkelia	Dicots	PDROS0W0B0	36	1	None	None	G2	S2	1B.2	null	Coastal dunes, Coastal prairie, Coastal scrub
Margaritifera falcata	western pearlshell	Mollusks	IMBIV27020	78	2	None	None	G4G5	S1S2	null	null	Aquatic
Mitellastra caulescens	leafy-stemmed mitrewort	Dicots	PDSAX0N020	21	2	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	2	None	None	G3G4	S2	2B.2	null	Meadow & seep, North coast coniferous forest, Vernal pool, Wetland
Myotis evotis	long-eared myotis	Mammals	AMACC01070	139	1	None	None	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, WBWG_M-Medium Priority	null
Myotis thysanodes	fringed myotis	Mammals	AMACC01090	86	1	None	None	G4	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	null
Myotis yumanensis	Yuma myotis	Mammals	AMACC01020	265	1	None	None	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern, WBWG_LM-Low-Medium Priority	Lower montane coniferous forest, Riparian forest, Riparian woodland, Upper montane coniferous forest
Northern Interior Cypress Forest	Northern Interior Cypress Forest	Forest	CTT83220CA	22	1	None	None	G2	S2.2	null	null	Closed-cone coniferous forest
Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon /	Fish	AFCHA02032	10	3	Threatened	Threatened	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic, Klamath/North coast flowing

	northern California ESU											waters, Sacramento/San Joaquin flowing waters
Oncorhynchus mykiss irideus pop. 36	summer-run steelhead trout	Fish	AFCHA0213B	20	1	None	Candidate Endangered	G5T4Q	S2	null	CDFW_SSC-Species of Special Concern	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters
Pandion haliaetus	osprey	Birds	ABNKC01010	504	2	None	None	G5	S4	null	CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest
Pekania pennanti	Fisher	Mammals	AMAJF01020	555	3	None	None	G5	S2S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	North coast coniferous forest, Oldgrowth, Riparian forest
Piperia candida	white-flowered rein orchid	Monocots	PMORC1X050	222	42	None	None	G3?	S3	1B.2	null	Broadleaved upland forest, Lower montane coniferous forest, North coast coniferous forest, Ultramafic
Rana aurora	northern red-legged frog	Amphibians	AAABH01021	292	2	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	foothill yellow-legged frog	Amphibians	AAABH01050	2478	43	None	Endangered	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFS_S-Sensitive	Aquatic, Chaparral, Cismontane woodland, Coastal scrub, Klamath/North coast flowing waters, Lower montane coniferous forest, Meadow & seep, Riparian forest, Riparian woodland, Sacramento/San Joaquin flowing waters
Rhyacotriton variegatus	southern torrent salamander	Amphibians	AAAAJ01020	416	14	None	None	G3G4	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Lower montane coniferous forest, Oldgrowth, Redwood, Riparian forest
Sedum eastwoodiae	Red Mountain stonecrop	Dicots	PDCRA0A0L1	6	6	None	None	G5T2	S2	1B.2	BLM_S-Sensitive	Lower montane coniferous forest, Ultramafic
Sidalcea malachroides	maple-leaved checkerbloom	Dicots	PDMAL110E0	136	3	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	2	None	None	G5T2	S2	1B.2	null	Coastal bluff scrub, Coastal prairie, North coast coniferous forest
Silene greenei ssp. angustifolia	Red Mountain catchfly	Dicots	PDCAR0U0A2	8	8	None	Endangered	G5T1	S1	1B.2	BLM_S-Sensitive	Chaparral, Lower montane coniferous forest, Ultramafic
Taricha rivularis	red-bellied newt	Amphibians	AAAAF02020	136	6	None	None	G2	S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Broadleaved upland forest, North coast coniferous forest, Redwood, Riparian forest, Riparian woodland
Thermopsis	robust false	Dicots	PDFAB3Z0D0	104	2	None	None	G2	S2	1B.2	USFS_S-Sensitive	Broadleaved

robusta	lupine											upland forest, North coast coniferous forest, Ultramafic
Upland Douglas Fir Forest	Upland Douglas Fir Forest	Forest	CTT82420CA	15	2	None	None	G4	S3.1	null	null	North coast coniferous forest
Usnea longissima	Methuselah's beard lichen	Lichens	NLLEC5P420	206	16	None	None	G4	S4	4.2	BLM_S-Sensitive	Broadleaved upland forest, North coast coniferous forest, Oldgrowth, Redwood
Viburnum ellipticum	oval-leaved viburnum	Dicots	PDCPR07080	39	2	None	None	G4G5	S3?	2B.3	null	Chaparral, Cismontane woodland, Lower montane coniferous forest