

Willits Creek Instream Restoration Project ***(Project ID: 1728048) 2022***

Introduction:

This project is the installation of 54 large wood structures along 10,700 feet of Willits Creek. These structures will provide summer and winter habitat to salmonids. The large wood structures are designed to increase floodplain inundation, deepen pools, increase shelter and shelter complexity, sort spawning gravels, and to provide velocity refugia to Coho, Chinook, and steelhead.

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, Part VII*.

<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 California coastal zone?

Yes or No

Objective(s):

The objective of this project is to improve instream habitat for Coho salmon in Willits Creek. The engineering firm, Stillwater Sciences worked with ERWIG to assess stream conditions in Willits Creek and design this project. Implementation of this project will result in the construction of 54 large wood (LW) structures made up of 172 pieces of wood along approximately 9,350 feet of Willits Creek. These LW structures will provide velocity refugia and shelter for Coho salmon. The structures will also scour and deepen pools, sort and capture spawning substrate, and increase habitat complexity by capturing additional woody debris.

Project Description:

Location:

The project is located on Willits Creek, a tributary to Mill Creek, tributary to Outlet Creek, tributary to the Eel River. The project reach is located near Willits, Mendocino County, CA at Township 18 North, Range 14 West, Sections 2 & 11 of the Burbeck 7.5 Minute U.S. Geological Survey Quadrangle. The downstream extent of the project reach is approximately 4,890 feet from the confluence with Mill Creek and the upstream extent is approximately 15,590 feet upstream of the

confluence with Mill Creek. Project coordinates are: 39.43528, -123.38369.

Project Set Up:

ERWIG will provide contracting oversight and administration, including but not limited to obtaining permits, securing contracts (e.g., grantors, subcontractors, landowner), scheduling, invoicing, reporting, and agency and landowner communications. ERWIG will oversee construction activities, plant trees, collect post project metrics and photos and will assist Executive Director with reporting.

Stillwater Sciences: will oversee construction activities and develop as-built designs. Stillwater Sciences personnel who will work on this project include the following: Joel Monschke, Restoration Engineer (CA licensed Civil Engineer #C79699) Dylan Caldwell, Geologist (CA licensed Geologist #9336) Tanner Cunningham (Junior Engineer) Hattie Greydanus (Junior Engineer) Stillwater Sciences' staffing structure for the project includes credentialed senior staff experienced in the region, knowledgeable of the site, and with established relationships among the project team. Senior staff will interact with clients and stakeholders, ensure structures are constructed in accordance to design plans and project objectives and direct experienced junior staff.

The California Conservation Corps: will use grip hoists to move logs into final position and will anchor logs according to design parameters.

Equipment Operator & LTO: will deliver logs, boulders and heavy equipment. Will fall and uproot trees for the project. Will construct stream crossings and will install logs according to project designs. The equipment operator will also assist the CCC with anchoring.

Biologist: Will relocate fish from stream crossings.

Registered Professional Forester: Will assist with live tree selection for the project.

William Rich & Associates: Will conduct archeologic and botanical surveys and reporting.

Paleontologist: Will conduct paleontologic surveys and reporting.

Materials:

Anchoring Materials: 1` threaded bar, 3/4` chain, nuts, and plates (washers), these items are used to anchor logs to live trees and other logs.

Timber Bits: Used to drill into logs and trees.

Rock Bits: Used to drill into boulders.

Power Tools: Portable band saws, wood drills, chainsaws and portable generators. These items are used in the construction and anchoring of the structures. Wood drills are used to drill holes in live trees and logs for rebar attachment. Portable band saws are used to cut rebar to length. Chainsaws are used to trim branches, cut logs to size and to remove hazard trees. Portable generators are used to power the power tools.

Misc items: Items such as chuck keys, shear pins, hammers and band saw blades, which are used during construction.

Field supplies including waders and time lapse camera for collecting first winter data.

Erosion control materials: rice straw, wattles, gravel, wood chips, and native grass seed, used to prevent surface erosion of disturbed areas.

Boulders: Used to build features, will be delivered by truck.

Logs: Will be used in the construction of the habitat structures to provide habitat and will be anchored together. The logs will be sourced from downed, dead and live redwood and Douglas firs in the riparian zone and brought to the project on trucks.

Native plants: Will be used to plant areas disturbed by project activities. Species will include Douglas fir (*Pseudotsuga menziesii*), Redwood (*Sequoia sempervirens*), Alders (*Alnus sp*), Rhododendron & Azalea (*Rhododendron sp*), Toyon (*Heteromeles arbutifolia*). Also includes soil amendments.

Tasks:

Task 1. Site Preparation

The ERWIG Project Manager will flag sites for wood selection, staging, and installation, clear and remove brush as needed, and designate staging areas for wood along the project reach. ERWIG and a qualified biologist will set up block nets at the stream crossing site and ERWIG will assist the biologist in aquatic species removal. Crossings will be used by an excavator as few times as possible (2-6) and by an atv in order to refuel the excavator. Pre-project photos and metrics will be collected by ERWIG. Tools and materials will be purchased by ERWIG prior to the start of implementation and on an-as-needed basis throughout the project. Brooktrails Township Community Services District will be provided with pre-project photos and any map and work area updates before implementation begins. If any structure designs need updating, CDFW and BTCSD will be provided with the updates before work

begins.

Task 2. Large Wood Structure Construction

Upon approval from the CDFW Project Manager, construction will begin on 54 LW features under the direction of Stillwater Sciences and ERWIG Project Manager. Some features may involve cutting down or uprooting trees, which will be accomplished by the LTO or the EO, respectively. The RPF will sign off on all trees chosen for use in the project. The EO will place downed logs into the stream in accordance with design plans. Equipment will use existing access roads whenever possible and will choose routes to the stream channel that will cause the least impact to the riparian zone and infrastructure. When necessary, CCC Corpsmembers will move logs into position using a grapple. Site construction, wood placement, and anchoring will be in accordance with the CDFW California Salmonid Stream Habitat Restoration Manual, Section VII (Flosi et al. 2010). The project will utilize living riparian trees as anchors by wedging the logs between them where feasible. CCC Corpsmembers will anchor the sites according to design and anchoring specifications. Corpsmembers will use one-inch threaded rebar to anchor logs to mature riparian trees and other logs. Holes will be drilled through the logs and their anchor trees using a wood drill, timber bit, and drill bit extensions when necessary. One-inch rebar will be inserted through the log and secured with nuts and washers. Logs will be anchored to boulders using 1" threaded bar glued into the boulders or 3/4" chain attached to 1" threaded bar glued into the boulders. Corpsmembers will be supervised by a trained Conservationist 1 (C1) and the ERWIG Project Manager. Erosion control methods will be employed by the CCC as required at each structure and along equipment corridors to eliminate the possibility of sediment transport to the stream. ERWIG staff will monitor water quality as needed. To address concerns over invasive species this project will follow the ERWIG Aquatic Invasive Species Decontamination Protocol, which is in line with the CDFW Aquatic Invasive Species Decontamination Protocol. Due to emergency response responsibilities, implementation will occur in the first summer that the CCC are available (between July and October, 2024-2026).

Task 3: Riparian Planting

ERWIG will return in the winter following project implementation to plant 50 native shrubs and 100 native trees, with a primary focus in areas lacking sufficient conifer cover or riparian vegetation. The 100 native trees and 50 native shrubs will be a mix of *Pseudotsuga menziesii*, *Sequoia sempervirens*, *Heteromeles arbutifolia*, *Alnus sp.*, and *Rhododendron sp.* ERWIG staff will maintain the plants in the summer following planting.

Task 4: Post Project Photo & Data Collection

Following implementation ERWIG will take post-project photos and quantitative implementation metrics will be collected which satisfy the Project Annual Progress Reports and Final Report. A first winter observation report will be completed by ERWIG, Stillwater Sciences will develop as-built designs.

Deliverables

The construction of 54 large wood (LW) structures made up of 172 pieces of wood along approximately 9,350 feet of Willits Creek. Water quality monitoring report. 100 native trees and 50 native shrubs. Post-project metrics and photos. First winter observation report with as-builts.

Timeline:

Site preparation starts 8/31/2024. Construction activities are from 8/31/2024 to 10/31/2026. Final report and as-builts will be delivered by 3/31/2027.

All ground-disturbing activities will happen between June 15 and October 31 annually.

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 Army Corp of Engineers Regional General Permit. Actual project start and end dates, within this timeframe, are at the discretion of 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.

The Permittee shall notify the CDFW a minimum of five working days before the project site is dewatered 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.

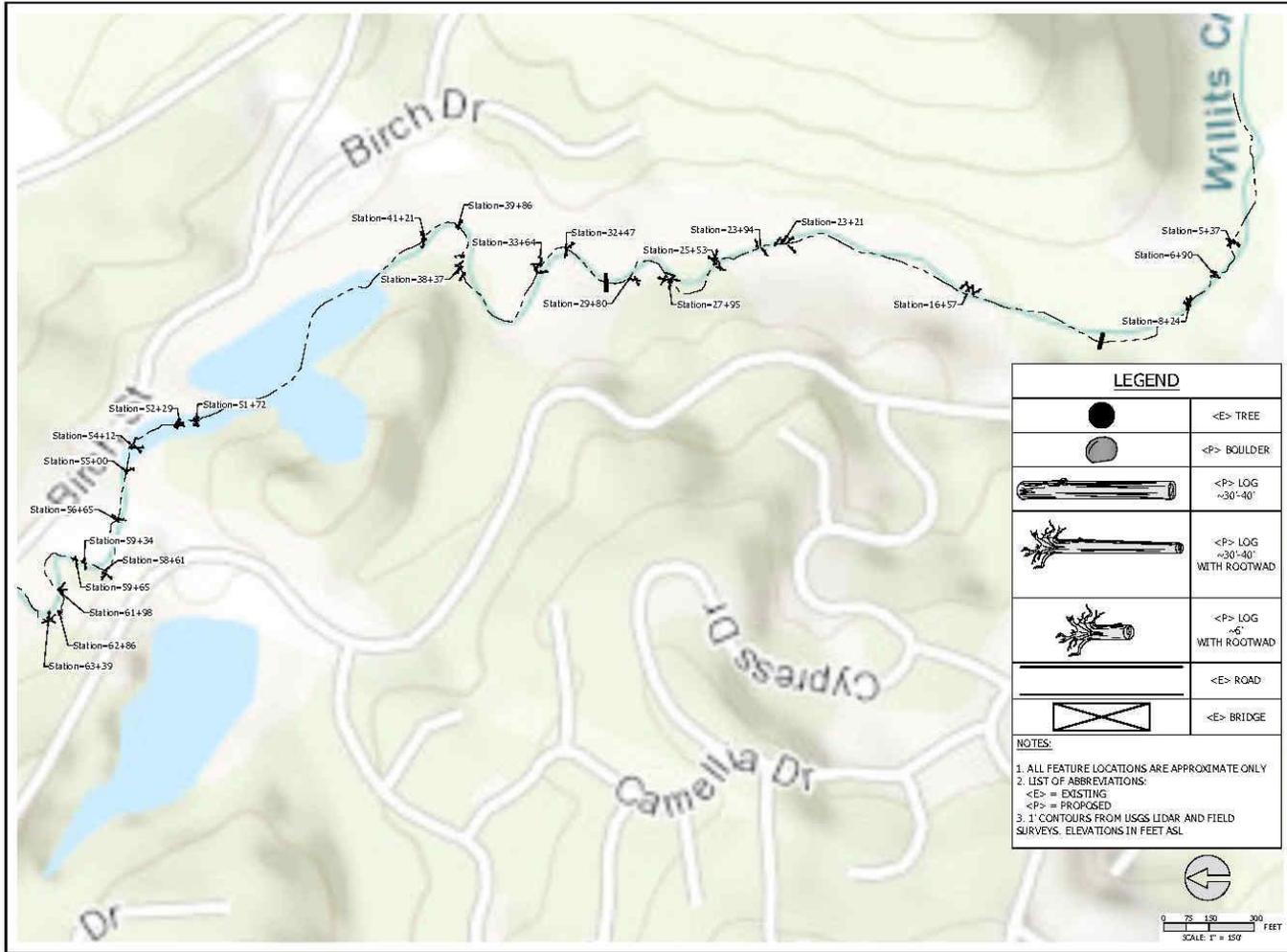
c. The Permittee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible as approved by the CDFW personnel and pursuant to conditions in the United State Army Corp of Engineers (USACE) Regional General Permit and National Marine Fisheries Service (NMFS) Biological Opinion.

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

e. U.S. Fish and Wildlife Service (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.

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 insure the best chance of survival of the seedlings.

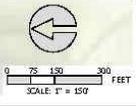


LEGEND

	<E> TREE
	<P> BOULDER
	<P> LOG ~30'-40'
	<P> LOG ~30'-40' WITH ROOTWAD
	<P> LOG ~6' WITH ROOTWAD
	<E> ROAD
	<E> BRIDGE

NOTES:

1. ALL FEATURE LOCATIONS ARE APPROXIMATE ONLY
2. LIST OF ABBREVIATIONS:
<E> = EXISTING
<P> = PROPOSED
3. 1" CONTOURS FROM USGS LIDAR AND FIELD SURVEYS. ELEVATIONS IN FEET ASL



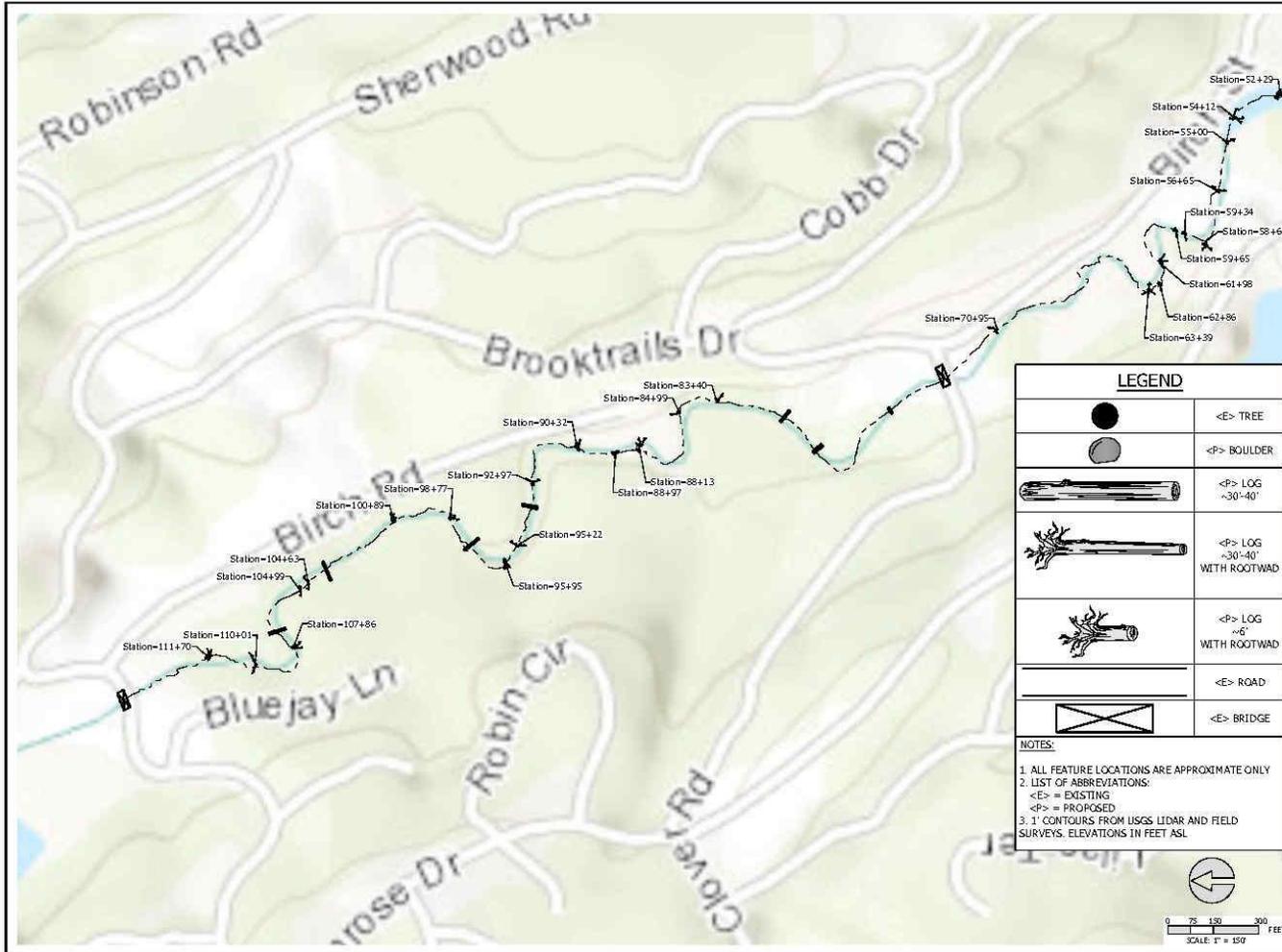
**WILLITS CREEK LWD
PLANNING AND DESIGN**

WILLITS, CA
Stillwater Sciences
 630 G STREET, SUITE K
 WICATA, CA 95212 P: (970) 622-6807

PROJECT NUMBER: 882.00
 SCALE: AS NOTED
 DATE: 4/14/22
 DESIGN: JM
 DRAWN: TC
 CHECKED: JM
 APPROVED: JM



**DOWNSTREAM PROJECT
REACH FEATURES**



LEGEND

	<E> TREE
	<P> BOULDER
	<P> LOG ~30'-40'
	<P> LOG ~30'-40' WITH ROOTWAD
	<P> LOG ~6' WITH ROOTWAD
	<E> ROAD
	<E> BRIDGE

NOTES:

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**WILLITS CREEK LWD
PLANNING AND DESIGN**

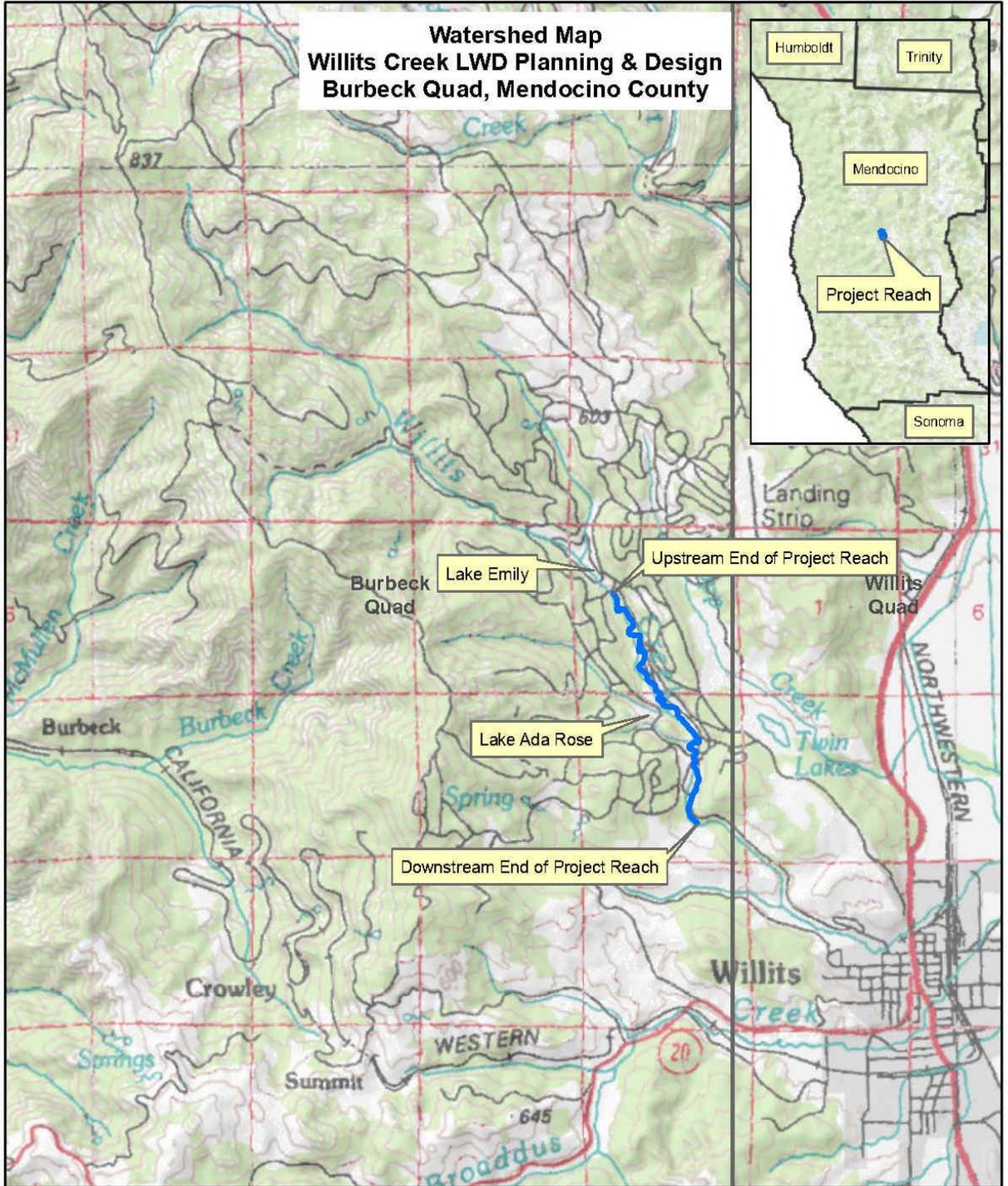
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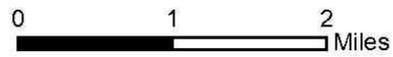


**UPSTREAM PROJECT
REACH FEATURES**

**Watershed Map
Willits Creek LWD Planning & Design
Burbeck Quad, Mendocino County**



— Willits Creek Project Reach



Eel River Watershed Improvement Group
March 2019



CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE RareFind

Query Summary:

Quad IS (Burbeck (3912344) OR Northspur (3912345) OR Willits (3912343) OR Comptche (3912335) OR Greenough Ridge (3912334) OR Laughlin Range (3912333) OR Sherwood Peak (3912355) OR Longvale (3912354) OR Willis Ridge (3912353))

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CNDDDB 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 gentilis	northern goshawk	Birds	ABNKC12060	433	1	None	None	G5	S3	null	BLM_S-Sensitive, CDFW_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
Accipiter striatus	sharp-shinned hawk	Birds	ABNKC12020	22	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	1	None	Threatened	G1G2	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Alisma gramineum	grass alisma	Monocots	PMALI01010	14	3	None	None	G5	S3	2B.2	null	Marsh & swamp, Wetland
Arborimus pomom	Sonoma tree vole	Mammals	AMAFF23030	222	18	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	North coast coniferous forest, Oldgrowth, Redwood
Ascaphus truei	Pacific tailed frog	Amphibians	AAABA01010	491	4	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	23	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
Atractelmis wawona	Wawona riffle beetle	Insects	IICOL58010	80	1	None	None	G3	S1S2	null	null	Aquatic
Blennosperma bakeri	Sonoma sunshine	Dicots	PDAST1A010	24	1	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Valley & foothill grassland, Vernal pool, Wetland
Bombus caliginosus	obscure bumble bee	Insects	IIHYM24380	181	2	None	None	G2G3	S1S2	null	IUCN_VU-Vulnerable	null
Bombus occidentalis	western bumble bee	Insects	IIHYM24250	306	2	None	None	G2G3	S1	null	USFS_S-Sensitive	null
Brasenia schreberi	watershield	Dicots	PDCAB01010	43	2	None	None	G5	S3	2B.3	IUCN_LC-Least Concern	Marsh & swamp, Wetland
Coptis laciniata	Oregon goldthread	Dicots	PDRAN0A020	122	18	None	None	G4?	S3?	4.2	null	Meadow & seep, North coast coniferous forest, Wetland
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	1	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-	Broadleaved upland forest, Chaparral, Chenopod

												Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	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	6	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	
Erythronium revolutum	coast fawn lily	Monocots	PMLILOU0F0	172	4	None	None	G4G5	S3	2B.2	null	Bog & fen, Broadleaved upland forest, North coast coniferous forest, Wetland	
Fritillaria roderickii	Roderick's fritillary	Monocots	PMLILOV0M0	8	1	None	Endangered	G1Q	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Coastal bluff scrub, Coastal prairie, Valley & foothill grassland	
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	
Hesperolinon adenophyllum	glandular western flax	Dicots	PDLIN01010	48	5	None	None	G2G3	S2S3	1B.2	BLM_S-Sensitive	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland	
Horkelia tenuiloba	thin-lobed horkelia	Dicots	PDROS0W0E0	27	1	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Chaparral, Valley & foothill grassland	
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland	
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	238	1	None	None	G3G4	S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest	
Limnanthes bakeri	Baker's meadowfoam	Dicots	PDLIM02020	21	11	None	Rare	G1	S1	1B.1	SB_USDA-US Dept of Agriculture	Freshwater marsh, Marsh & swamp, Meadow & seep,	

													Valley & foothill grassland, Vernal pool, Wetland
Lupinus milobakeri	Milo Baker's lupine	Dicots	PDFAB2B4E0	11	1	None	Threatened	G1Q	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Cismontane woodland, Valley & foothill grassland	
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	PDPLM0C0E1	64	7	None	None	G4T2	S2	1B.1	null	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland	
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	Fish	AFCHA02034	23	1	Endangered	Endangered	G5T2Q	S2	null	AFS_EN-Endangered	Aquatic	
Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	Fish	AFCHA0209Q	12	2	Threatened	None	G5T2T3Q	S2S3	null	AFS_TH-Threatened	Aquatic, Klamath/North coast flowing waters	
Pekania pennanti	Fisher	Mammals	AMAJF01020	555	4	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	29	None	None	G3?	S3	1B.2	null	Broadleaved upland forest, Lower montane coniferous forest, North coast coniferous forest, Ultramafic	
Pleuropogon hooverianus	North Coast semaphore grass	Monocots	PMPOA4Y070	27	8	None	Threatened	G2	S2	1B.1	SB_BerrySB-Berry Seed Bank, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Meadow & seep, North coast coniferous forest, Wetland	
Potamogeton epihydrus	Nuttall's ribbon-leaved pondweed	Monocots	PMPOT03080	25	1	None	None	G5	S2S3	2B.2	IUCN_LC-Least Concern	Marsh & swamp, Wetland	
Ramalina thrausta	angel's hair lichen	Lichens	NLLEC3S340	21	1	None	None	G5?	S2S3	2B.1	null	North coast coniferous forest	
Rana aurora	northern red-legged frog	Amphibians	AAABH01021	292	3	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 boylei	foothill yellow-legged frog	Amphibians	AAABH01050	2478	109	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	4	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	
Setophaga petechia	yellow warbler	Birds	ABPBX03010	78	1	None	None	G5	S3S4	null	CDFW_SSC-Species of Special Concern	Riparian forest, Riparian scrub, Riparian woodland	
Sidalcea malachroides	maple-leaved checkerbloom	Dicots	PDMAL110E0	136	1	None	None	G3	S3	4.2	null	Broadleaved upland forest, Coastal prairie, Coastal scrub,	

												North coast coniferous forest, Riparian forest
Silene bolanderi	Bolander's catchfly	Dicots	PDCAR0U2L0	30	5	None	None	G2	S2	1B.2	null	Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadow & seep, North coast coniferous forest, Ultramafic
Taricha rivularis	red-bellied newt	Amphibians	AAAAF02020	136	23	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
Taxidea taxus	American badger	Mammals	AMAJF04010	594	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, lone formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland
Trifolium buckwestiorum	Santa Cruz clover	Dicots	PDFAB402W0	64	2	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, SB_UCSC-UC Santa Cruz, SB_USDA-US Dept of Agriculture	Broadleaved upland forest, Cismontane woodland, Coastal prairie
Trifolium hydrophilum	saline clover	Dicots	PDFAB400R5	56	1	None	None	G2	S2	1B.2	null	Marsh & swamp, Valley & foothill

													grassland, Vernal pool, Wetland
Valley Oak Woodland	Valley Oak Woodland	Woodland	CTT71130CA	91	1	None	None	G3	S2.1	null	null		Cismontane woodland