

Lower Green Valley Creek Off-Channel Habitat Enhancement Project at Iron Horse Vineyards, Phase I (Project ID: 1728147)

2022

Introduction:

The Gold Ridge Resource Conservation District (Grantee) will create 1.6 acres (69,112 square feet) of complex high-flow refugia and winter foraging habitat for winter-rearing and out-migrating juvenile coho salmon and steelhead trout, providing accessible off-channel habitat under frequent storm inundation conditions in a reach that is considered critical for rearing fish, thereby contributing to the recovery of salmonid populations in Green Valley Creek and the Russian River.

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 1, Section 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):

This project consists of two phases that will entail the construction of an integrated suite of habitat enhancement elements that will significantly increase off-channel rearing and high-flow refugia habitat for salmonids in lower Green Valley Creek. This first phase of the project will create 1.74 acres of low velocity and depth rearing habitat during frequent winter storm inundation periods. The seasonally flooded wetlands will be vegetated with water tolerant native species to provide cover during periods of inundation. Inundation durations of the lowered flooded wetlands features will be increased to one to four weeks with each storm event; this extended flooding duration allows productivity in the flooded wetlands to evolve from primary to secondary, which provides nutrient rich foraging opportunities for juvenile salmonids.

This proposed first phase of the project includes three main elements to meet the restoration objectives of enhancing low-velocity in-channel and off-channel habitats and reducing impacts from driveways and drainages:

a) Upper floodplain off-channel habitat features, including the creation of a seasonal wetland and enhancement of two seasonal connector channels on the floodplain adjacent to Green Valley Creek, will create areas of frequently inundated, low-velocity refuge and rearing habitat during winter and spring flow conditions such that alcoves will have depths of 6-feet to 3-feet during low winter base flow, side channels and low elevation areas in the seasonally flooded wetlands will be inundated at high winter base flows, and the inset floodplain benches, wetlands and connector channels will be activated and accessible to fish during frequent storm events; this feature will function as a very low velocity backwater environment until the high flow connector channels are activated.

b) Large wood structures (pinch jams, cross-channel jams, and habitat structures) will be installed in Green Valley Creek in association with the upper floodplain off-channel habitat and connector side channels to create in-channel complexity and maintain instream habitat features.

c) Driveway improvements including road treatments and culvert upgrades on the Iron Horse Vineyards access road, which crosses the floodplain and Green Valley Creek, will ensure fish passage from the upper floodplain features to downstream connector channels and reduce water quality impacts from the gravel road surface. The existing private driveway will be elevated to 1) provide adequate sub-drainage in the road prism to support improvements to the road surface; and 2) allow for increased flow capacity through the two floodplain relief culverts.

Project Description:

Location:

The project is located on the reach of Green Valley Creek that runs through the Iron Horse Vineyards property at the West end of Ross Station Road, between the towns of Graton and Forestville in Sonoma County. The confluence of Atascadero Creek and upper Green Valley Creek is approximately 1/4 mile upstream of the project site. Project coordinates are: 38.4553149° North, - 122.89403° East

Project Set Up:

Administration: The grant will be managed and administered by the Grantee, using standard and accepted accounting rules and procedures and following any

Grantor- or grant-specific guidelines. This task includes periodic invoicing and submission of progress reports, bid package preparation, bidding and subcontracting, implementation photo monitoring and preparation and submission of the draft and final project reports. This task will also include landowner interaction and coordination, including the drafting of an implementation access agreement. The Grantee Project Manager will be the lead for this task, responsible for all activities listed above, and will be assisted in landowner and agency coordination, bidding and contracting by the Grantee Ecologist and Grantee Shared Engineer. The Grantee District Administrator will be responsible for setting up the appropriate accounting and invoicing procedures, and will assist with reporting. The Grantee Executive Director will have oversight responsibilities for the overall project. This task includes a subcontractor (most likely Contractor Compliance and Monitoring, Inc.) to carry out labor compliance monitoring for all project activities subject to public works labor rules.

Subcontract Prunuske Chatham, Inc. (PCI): will conduct the required biological and botanical (including a wetland and waters delineation) assessments and PCI will subcontract to Archaeological Consultants Associates (ALTA) for the cultural and tribal, resource assessments and surveys for the project. Because of the likelihood of finding an archaeological site during the subsurface investigation, ALTA, as part of the Archaeological Site Evaluation, will consult with the Federated Indians of Graton Rancheria to further evaluate a cultural resource site. A qualified subcontractor will be contracted by Grantee to conduct a paleontological resource assessment. The Grantee Ecologist will coordinate the survey efforts and work with the landowner regarding access. The Grantee Ecologist will also be the lead in carrying out surveys for sensitive species, including California red-legged frogs and California freshwater shrimp. The Grantee Ecologist and a Qualified Biologist will conduct all necessary preconstruction surveys for Phase 1 before project implementation. PCI will complete as-built post construction surveys to document off-channel features with sections and profile surveys along with wood installations and monitoring equipment locations.

Prunuske Chatham, Inc. will prepare applications for the California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement, and if necessary, the CDFW Restoration Management Permit. The Grantee Ecologist will be responsible for submitting the CDFW application packages using Environmental Permit Information Management System (EPIMS). Prunuske Chatham will develop the Stormwater Pollution Prevention Plan (SWPPP) Waiver with the State Water Quality Control Board and prepare and submit the Sonoma County Minor Use Permit for restoration work in the riparian corridor. The Grantee Ecologist will coordinate with Sonoma County regarding the grading permit exemption.

Federated Indians of Graton Rancheria staff will provide tribal monitoring oversight during excavation to ensure protection of buried cultural resources. Prunuske Chatham, Inc. will also compose an evaluation and monitoring plan and conduct post-implementation project effectiveness surveys and associated reporting as part of the regulatory compliance tasks. PCI Wildlife Biologist with the Grantee Ecologist will conduct biological surveys (snorkeling surveys and/or seining) of the functional use of the constructed habitat by target species during the targeted life stage and anticipated time period of use. The Grantee Ecologist will conduct pre-construction endangered species surveys for California red-legged frogs and California freshwater shrimp, conduct pre- and post-project photo monitoring.

Materials:

The materials necessary for installation of the in-channel and off-channel habitat features and driveway improvements consist of the following:

Dewatering activities to occur in the mainstem of Green Valley Creek are necessary to protect the water quality downstream of the project-related disturbance. Materials include silt control filter fabric, impervious liners, cofferdam material, fish and exclusion screens, casings, washed rock.

Large wood structures are used within the site to create and maintain in-stream habitat features. Materials required include 16 logs, 12 rootwads, and 24 vertical log anchors (plus the incorporation of 15-16 onsite salvage trees), anchoring materials (steel threaded rod, steel plate washers, steel nuts), rope, and miscellaneous parts and fasteners as specified in the project plans. These comprise the wood structures in association with off-channel features.

Biotechnical and erosion control features (including willow wattle, brush mattress, and large-wood-structure slash packing) will be implemented as appropriate on disturbed areas. Materials needed include coir mat, erosion control blanket, wedge stakes, weed-free straw mulch, native grass seed and rope along with willow stakes harvested onsite. Protective fencing (t-posts, orange barrier fencing and nylon cable ties and rebar caps) will be installed to protect trees and shrubs from damage associated with clearing and grubbing.

Driveway improvements including elevating the driveway to provide adequate sub-drainage in the road prism to support improvements to the road surface and allow for increased flow capacity through the two floodplain relief culverts will include materials for paving the road as well as crushed drain rock to elevate the road, road base, two pre-cast concrete box culverts.

Floodplain revegetation activities involve revegetating disturbed areas newly created habitats. Revegetation materials include native plant materials (trees, shrubs, vines, forbs, grasses, rushes, and other monocots), planting soil or mulch, 100% biodegradable weed control fabric (hemp or jute) and fasteners (50d nails with washers or staples), all associated browse guard or plant protection cages and irrigation system materials (water tank, filter, valves, mainline, drip tubing, emitters).

Water quality monitoring equipment needed to comply with the requirement that projects dewatering waterways monitor and report water quality during dewatering activities. Parameters, such as but not limited to dissolved oxygen, temperature, conductivity, and turbidity shall be reported. Materials for water quality monitoring activities include two deployable water quality meters (sondes), necessary software for downloading data, calibration solutions, and batteries.

Post-project monitoring will be conducted to measure and ensure project effectiveness. Materials include two pressure transducers for monitoring depth data and off-channel habitat connection and inundation (one in off-channel wetland and one in Green Valley Creek channel).

Tasks:

Task 1: Dewatering and fish and aquatic species relocation: Dewatering of the channel in the vicinity of the off-channel habitat area inlets and outlets, large wood structure locations and connector channel outlets will primarily be the responsibility of the construction subcontractor, with assistance from Grantee staff and a PCI Qualified Biologist. Exclusion netting will be set, and dewatering will be accomplished and maintained following standard dewatering procedures as detailed in the attached Dewatering Protocol document and in compliance with the dewatering measures in the FRGP CEQA document. Fish and aquatic species relocation will be accomplished in coordination with the Grantor Project Manager or Biologist, with assistance from multiple Grantee staff members and a PCI qualified biologist. Fish will be removed from the area through seine netting, electrofishing or another Grantor-approved standard method, and will be released in appropriate habitat adjacent to the project site. Dewatering activities will be done in compliance with United States Fish and Wildlife Service (USFWS) Best Management Practices to Minimize Adverse Effects to Pacific Lamprey.

Task 2: Construction and oversight: A qualified construction subcontractor will be selected using Grantee bidding rules and will be responsible for on-the-ground implementation work including off-channel habitat construction of floodplain features (alcoves, side channels, seasonal wetlands and connector channels), installation of large wood structures (pinch jams, cross-channel jams, habitat structures), driveway improvements (road treatments and culverts), and floodplain revegetation. This work will include all earthwork and grading,

installation of large wood structures and driveway improvements as detailed in the plans and specifications for the project, as well as mobilization and demobilization and installation of erosion control measures. The construction subcontractor will be overseen by the Grantee Project Manager with assistance from the Grantee Shared Engineer as well as engineering staff from Prunuske Chatham, Inc. (the project designer) for all inspection points and during all wood installations, along with "RGH Consultants," for geotechnical inspections on roadway and fish passage culverts. Federated Indians of Graton Rancheria staff will provide tribal monitoring oversight during excavation to ensure protection of buried cultural resources. Prunuske Chatham, Inc. will also compose an evaluation and monitoring plan and conduct post- implementation project effectiveness surveys and associated reporting as part of the regulatory compliance tasks. PCI Wildlife Biologist with the Grantee Ecologist will conduct biological surveys (snorkeling surveys and/or seining) of the functional use of the constructed habitat by target species during the targeted life stage and anticipated time period of use. The Grantee Ecologist will conduct pre-construction endangered species surveys for California red-legged frogs and California freshwater shrimp, conduct pre- and post-project photo monitoring.

Task 3: Water quality and post-construction monitoring. In accordance with CDFW permit requirements, Grantee staff will procure, install and maintain water quality monitoring equipment at the project site and in the reach immediately downstream. Parameters to be monitored include temperature, dissolved oxygen, conductivity, pH and turbidity. The Grantee Ecologist will be the lead on the monitoring effort, working with the Grantee Lead Scientist to identify and procure the appropriate equipment, determining monitoring station locations, developing protocols, overseeing data management and analysis, uploading data to California Environmental Data Exchange Network (CEDEN) and composing monitoring reports. The Grantee Project Coordinator will assist in operating and maintaining water quality monitoring equipment, as well as downloading and analyzing data. Prunuske Chatham Inc. will complete as-built post construction surveys to document off-channel features with sections and profile surveys along with wood installations and monitoring equipment locations. PCI will install two pressure transducers to evaluate post project effectiveness of off- channel features and instream wood features as related to stage depth and analyze water quality data provide by Grantee. Work includes winter and post winter visual inspections, photo documentation along with site surveys winter and spring for presence or absence of salmonids use of off-channel features and large wood structures by snorkeling and seining surveys (three- one day site visits). PCI will prepare a Year 1 and Year 2 physical monitoring and effectiveness technical report to document changes in channel topography and habitat conditions, hydraulic function, water quality dynamics and fish utilization.

Deliverables:

Creation of 1.6 acres (69,112 square feet) of complex high-flow refugia and winter foraging habitat for winter-rearing and out-migrating juvenile coho salmon and steelhead trout

- A. The total linear length in feet of Green Valley Creek where the project will take place is 1,030 feet.
- B. The length of aquatic habitat to be disturbed is 280 feet.
- C. The area of instream features to be installed within the bankfull channel or the channel area to be excavated is 19,100 square feet.
- D. The project is identified in the Green Valley Watershed Management Plan, which states that the creation and/or augmentation of off-channel habitat to provide winter rearing and refugia habitat, and increased floodplain interaction is the highest restoration recommendation for unconfined creeks in the lower Green Valley Watershed, which includes the proposed project site. The project is described in Prunuske Chatham, Inc.'s Basis of Design Report Iron Horse Vineyards Off-Channel Habitat Enhancement.

Gold Ridge Resource Conservation District, 2013, "Green Valley Creek Watershed Management Plan", Gold Ridge Resource Conservation District, Graton, CA.

Prunuske Chatham, Inc., 2019, "Basis of Design Report Iron Horse Vineyards Off-Channel Habitat Enhancement", Prepared for Gold Ridge Resource Conservation District, Sebastopol, CA.

Timelines:

Task 1: Dewatering and fish and aquatic species relocation, will occur between July 1, 2025 and October 15, 2025.

Task 2: Construction and oversight, will occur between April 1 2023 and March 31, 2026.

Task 3: Water quality and post-construction monitoring, will occur between April 1, 2023 and March 1, 2027

In order to avoid impacts to California freshwater shrimp, coho salmon and steelhead, on the ground construction activities will be limited to July 1 through October 15.

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.

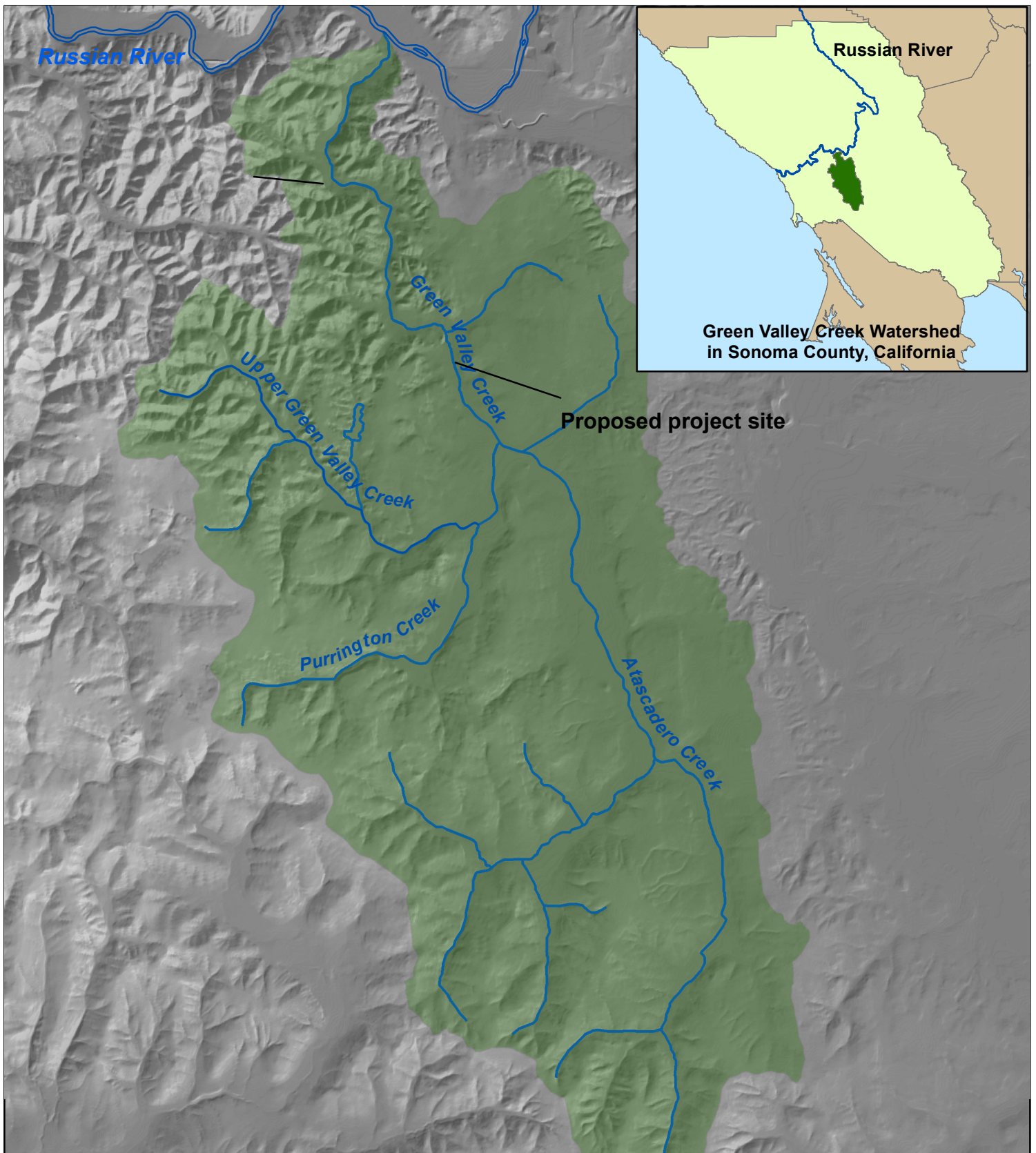
All habitat improvements will follow techniques described in the California Salmonids Stream Habitat Restoration Manual, Volume I and Volume II.

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:

- 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 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.



Lower Green Valley Creek Off-Channel Habitat Enhancement Project at Iron Horse Vineyards, Phase I

Map 2: Green Valley Creek Watershed Map

Grantee: Gold Ridge RCD
Sonoma County, CA

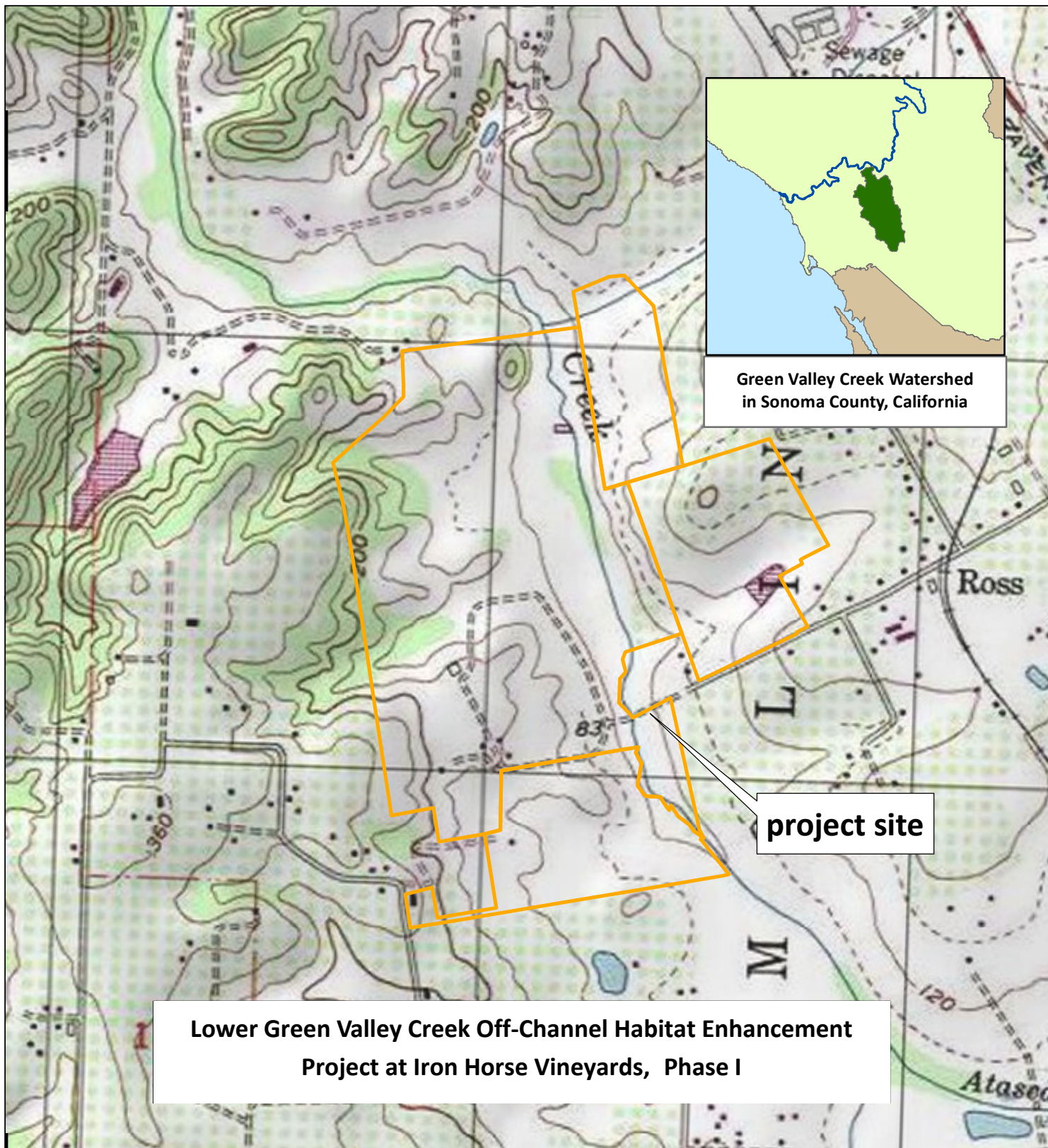
 Streams

 Green Valley Watershed

0 1 2 4
Miles
1:80,000



April 2022



Map 1: Topographic Map

**Grantee: Gold Ridge Resource Conservation District
Sonoma County, CA
(Camp Meeker 7.5' Quadrangle, USGS 1969)**

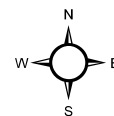
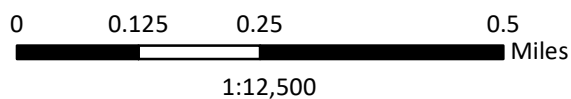


April 2022

Legend



Iron Horse Vineyards



CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE *RareFind*

Query Summary:

Quad **IS** (Camp Meeker (3812248) **OR** Duncans Mills (3812341) **OR** Sebastopol (3812247) **OR** Cazadero (3812351) **OR** Guerneville (3812258) **OR** Healdsburg (3812257) **OR** Bodega Head (3812331) **OR** Valley Ford (3812238) **OR** Two Rock (3812237))

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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
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
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	3	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
Agrostis blasdalei	Blasdale's bent grass	Monocots	PMPOA04060	62	7	None	None	G2G3	S2	1B.2	BLM_S-Sensitive, SB_UCSC-UC Santa Cruz	Coastal bluff scrub, Coastal dunes, Coastal prairie
Allium peninsulare var. franciscanum	Franciscan onion	Monocots	PMLIL021R1	25	1	None	None	G5T2	S2	1B.2	null	Cismontane woodland, Ultramafic, Valley & foothill grassland
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	Monocots	PMPOA07012	21	12	Endangered	None	G5T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Freshwater marsh, Marsh & swamp, Riparian scrub, Wetland
Ambystoma californiense pop. 3	California tiger salamander - Sonoma County DPS	Amphibians	AAAAA01183	82	31	Endangered	Threatened	G2G3T2	S2	null	CDFW_WL-Watch List, IUCN_VU-Vulnerable	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
Amorpha californica var. napensis	Napa false indigo	Dicots	PDFAB08012	76	10	None	None	G4T2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Chaparral, Cismontane woodland
Amsinckia lunaris	bent-flowered fiddleneck	Dicots	PDBOR01070	93	1	None	None	G3	S3	1B.2	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley, SB_UCSC-UC Santa Cruz	Cismontane woodland, Coastal bluff scrub, Valley & foothill grassland
Andrena blennospermatis	Blennosperma vernal pool andrenid bee	Insects	IIHYM35030	15	2	None	None	G2	S2	null	null	Vernal pool
Anodonta californiensis	California floater	Mollusks	IMBIV04220	6	1	None	None	G3Q	S2?	null	USFS_S-Sensitive	Aquatic
Anodonta oregonensis	Oregon floater	Mollusks	IMBIV04110	1	1	None	None	G5Q	S2?	null	null	Aquatic
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	4	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
Arboreus pomum	Sonoma tree vole	Mammals	AMAFF23030	222	13	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	North coast coniferous forest, Oldgrowth, Redwood
Arctostaphylos bakeri ssp. bakeri	Baker's manzanita	Dicots	PDERI04221	3	3	None	Rare	G2T1	S1	1B.1	null	Broadleaved upland forest, Chaparral, Ultramafic
Arctostaphylos bakeri ssp. sublaevis	Cedars manzanita	Dicots	PDERI04222	4	4	None	Rare	G2T2	S2	1B.2	BLM_S-Sensitive	Chaparral, Closed-cone coniferous forest, Ultramafic
Arctostaphylos densiflora	Vine Hill manzanita	Dicots	PDERI040C0	2	2	None	Endangered	G1	S1	1B.1	null	Chaparral
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	Dicots	PDERI041G4	12	2	None	None	G3T1	S1	1B.1	null	Chaparral, Cismontane woodland
Ardea alba	great egret	Birds	ABNGA04040	43	1	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Ardea herodias	great blue heron	Birds	ABNGA04010	156	2	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	4	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Blennosperma bakeri	Sonoma sunshine	Dicots	PDAST1A010	24	11	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	6	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
Brodiaea leptandra	narrow-anthered brodiaea	Monocots	PMLIL0C022	39	2	None	None	G3?	S3?	1B.2	null	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland
Calamagrostis crassiglumis	Thurber's reed grass	Monocots	PMPOA17070	15	2	None	None	G3Q	S2	2B.1	null	Coastal scrub, Freshwater marsh, Marsh & swamp, Wetland
Callophrys mossii marinensis	Marin elfin butterfly	Insects	IIILEPE2207	4	1	None	None	G4T1	S1	null	null	Redwood
Calochortus raichei	Cedars fairy-lantern	Monocots	PMLIL0D1L0	9	9	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_UCSC-UC Santa Cruz	Chaparral, Closed-cone coniferous forest, Ultramafic
Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	Dicots	PDCON040D2	42	10	None	None	G4T2T3	S2S3	1B.2	BLM_S-Sensitive	Coastal bluff scrub, Coastal dunes, Coastal scrub, North coast coniferous forest
Campanula californica	swamp harebell	Dicots	PDCAM02060	155	4	None	None	G3	S3	1B.2	BLM_S-Sensitive	Bog & fen, Closed-cone coniferous forest, Coastal prairie, Marsh & swamp, Meadow & seep, North coast

												coniferous forest, Wetland
Carex comosa	bristly sedge	Monocots	PMCYP032Y0	31	2	None	None	G5	S2	2B.1	IUCN_LC-Least Concern	Coastal prairie, Freshwater marsh, Marsh & swamp, Valley & foothill grassland, Wetland
Castilleja uliginosa	Pitkin Marsh paintbrush	Dicots	PDSCR0D380	2	2	None	Endangered	GXQ	SX	1A	null	Freshwater marsh, Marsh & swamp, Wetland
Ceanothus confusus	Rincon Ridge ceanothus	Dicots	PDRHA04220	33	2	None	None	G1	S1	1B.1	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Ultramafic
Ceanothus foliosus var. vineatus	Vine Hill ceanothus	Dicots	PDRHA040D6	6	4	None	None	G3T1	S1	1B.1	null	Chaparral
Ceanothus purpureus	holly-leaved ceanothus	Dicots	PDRHA04160	43	2	None	None	G2	S2	1B.2	SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland
Centromadia parryi ssp. parryi	pappose tarplant	Dicots	PDAST4R0P2	39	1	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Chaparral, Coastal prairie, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Cerorhinca monocerata	rhinoceros auklet	Birds	ABNNN11010	10	1	None	None	G5	S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	null
Charadrius nivosus nivosus	western snowy plover	Birds	ABNNB03031	138	2	Threatened	None	G3T3	S2	null	CDFW_SSC-Species of Special Concern, NABCI_RWL-Red Watch List	Great Basin standing waters, Sand shore, Wetland
Chlorogalum pomeridianum var. minus	dwarf soaproot	Monocots	PMLIL0G042	31	2	None	None	G5T3	S3	1B.2	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, USFS_S-Sensitive	Chaparral, Ultramafic
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	Dicots	PDSCR0J0C3	80	2	None	None	G4?T2	S2	1B.2	BLM_S-Sensitive	Marsh & swamp, Salt marsh, Wetland
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Dicots	PDPGN04081	17	1	None	None	G2T1	S1	1B.2	null	Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub
Chorizanthe cuspidata var. villosa	woolly-headed spineflower	Dicots	PDPGN04082	17	4	None	None	G2T2	S2	1B.2	null	Coastal dunes, Coastal prairie, Coastal scrub
Chorizanthe valida	Sonoma spineflower	Dicots	PDPGN040V0	6	1	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Coastal prairie
Cirsium andrewsii	Franciscan thistle	Dicots	PDAST2E050	31	2	None	None	G3	S3	1B.2	null	Broadleaved upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Ultramafic
Clarkia imbricata	Vine Hill clarkia	Dicots	PDONA050K0	2	2	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Valley & foothill grassland
Coastal Brackish Marsh	Coastal Brackish Marsh	Marsh	CTT52200CA	30	4	None	None	G2	S2.1	null	null	Marsh & swamp, Wetland
Coastal Terrace Prairie	Coastal Terrace Prairie	Herbaceous	CTT41100CA	8	1	None	None	G2	S2.1	null	null	Coastal prairie
Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	Marsh	CTT52410CA	60	4	None	None	G3	S2.1	null	null	Marsh & swamp, Wetland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	2	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive	Riparian forest

Coelus globosus	globose dune beetle	Insects	IICOL4A010	50	2	None	None	G1G2	S1S2	null	IUCN_VU-Vulnerable	Coastal dunes
Cordylanthus tenuis ssp. capillaris	Pennell's bird's-beak	Dicots	PDSCR0J0S2	4	4	Endangered	Rare	G4G5T1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Closed-cone coniferous forest, Ultramafic
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	7	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
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Dicots	PDCUS01111	6	1	None	None	G5T4?	SH	2B.2	null	Marsh & swamp, Wetland
Cuscuta pacifica var. papillata	Mendocino dodder	Dicots	PDCUS011A2	5	1	None	None	G5T1	S1	1B.2	null	Coastal dunes
Cypseloides niger	black swift	Birds	ABNUA01010	46	1	None	None	G4	S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, NABCI_YWL-Yellow Watch List, USFWS_BCC-Birds of Conservation Concern	null
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Insects	IILEPP2012	383	4	Candidate	None	G4T2T3	S2S3	null	IUCN_EN-Endangered, USFS_S-Sensitive	Closed-cone coniferous forest
Delphinium bakeri	Baker's larkspur	Dicots	PDRAN0B050	6	2	Endangered	Endangered	G1	S1	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Broadleaved upland forest, Coastal scrub, Valley & foothill grassland
Delphinium luteum	golden larkspur	Dicots	PDRAN0B0Z0	11	8	Endangered	Rare	G1	S1	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Coastal prairie, Coastal scrub
Dicamptodon ensatus	California giant salamander	Amphibians	AAAAH01020	234	28	None	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Aquatic, Meadow & seep, North coast coniferous forest, Riparian forest
Dirca occidentalis	western leatherwood	Dicots	PDTHY03010	90	2	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest, North coast coniferous forest, Riparian forest, Riparian woodland
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	132	12	None	None	GU	S2	2B.2	null	Valley & foothill grassland, Vernal pool, Wetland
Dubiraphia giuliani	Giuliani's dubiraphian rifle beetle	Insects	IICOL5A020	1	1	None	None	G1G3	S1S3	null	null	Aquatic
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	184	2	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill

												grassland, Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1404	42	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	4	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
Erigeron greenei	Greene's narrow-leaved daisy	Dicots	PDAST3M5G0	20	3	None	None	G3	S3	1B.2	null	Chaparral, Ultramafic
Erigeron serpentinus	serpentine daisy	Dicots	PDAST3M5M0	6	3	None	None	G2	S2	1B.3	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Ultramafic
Eriogonum cedrorum	Cedars buckwheat	Dicots	PDPGN087A0	3	2	None	None	G1	S1	1B.3	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Closed-cone coniferous forest, Ultramafic
Erysimum concinnum	bluff wallflower	Dicots	PDBRA160E3	30	2	None	None	G3	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub, Coastal dunes, Coastal prairie
Eucyclogobius newberryi	tidewater goby	Fish	AFCQN04010	127	4	Endangered	None	G3	S3	null	AFS_EN-Endangered, IUCN_VU-Vulnerable	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters
Eumetopias jubatus	Steller sea lion	Mammals	AMAJC03010	38	1	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
Fissidens pauperculus	minute pocket moss	Bryophytes	NBMUS2W0U0	22	1	None	None	G3?	S2	1B.2	USFS_S-Sensitive	North coast coniferous forest, Redwood
Fratercula cirrhata	tufted puffin	Birds	ABNNN12010	17	1	None	None	G5	S1S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Protected deepwater coastal communities
Fritillaria liliacea	fragrant fritillary	Monocots	PMLILOV0C0	82	5	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Cismontane woodland, Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland
Gilia capitata ssp. chamissonis	blue coast gilia	Dicots	PDPLM040B3	37	6	None	None	G5T2	S2	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Coastal dunes, Coastal scrub

<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Dicots	PDPLM040B6	91	1	None	None	G5T3	S2	1B.2	null	Chaparral, Coastal bluff scrub, Coastal prairie, Valley & foothill grassland
<i>Gilia capitata</i> ssp. <i>tomentosa</i>	woolly-headed gilia	Dicots	PDPLM040B9	18	7	None	None	G5T2	S2	1B.1	null	Coastal bluff scrub, Riparian woodland, Ultramafic, Valley & foothill grassland
<i>Gilia millefoliata</i>	dark-eyed gilia	Dicots	PDPLM04130	54	3	None	None	G2	S2	1B.2	BLM_S-Sensitive	Coastal dunes
<i>Gonidea angulata</i>	western ridged mussel	Mollusks	IMBIV19010	157	1	None	None	G3	S1S2	null	null	Aquatic
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	congested-headed hayfield tarplant	Dicots	PDAST4R065	52	21	None	None	G5T2	S2	1B.2	SB_UCBG-UC Botanical Garden at Berkeley	Valley & foothill grassland
<i>Hesperexax sparsiflora</i> var. <i>brevifolia</i>	short-leaved exax	Dicots	PDASTE5011	72	8	None	None	G4T3	S3	1B.2	BLM_S-Sensitive	Coastal bluff scrub, Coastal dunes, Coastal prairie
<i>Hesperoleucus parvipinnis</i>	Gualala roach	Fish	AFCJB19025	4	1	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern	Aquatic, Klamath/North coast flowing waters
<i>Hesperoleucus venustus navarroensis</i>	northern coastal roach	Fish	AFCJB19031	4	1	None	None	GNRT3	S3	null	CDFW_SSC-Species of Special Concern	Aquatic, Klamath/North coast flowing waters
<i>Horkelia marinensis</i>	Point Reyes horkelia	Dicots	PDROS0W0B0	36	2	None	None	G2	S2	1B.2	null	Coastal dunes, Coastal prairie, Coastal scrub
<i>Horkelia tenuiloba</i>	thin-lobed horkelia	Dicots	PDROS0W0E0	27	5	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Chaparral, Valley & foothill grassland
<i>Hysteroecarpus traskii</i> pomo	Russian River tule perch	Fish	AFCQK02011	4	3	None	None	G5T4	S4	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern	Aquatic, Klamath/North coast flowing waters
<i>Kopsiopsis hookeri</i>	small groundcone	Dicots	PDORO01010	21	1	None	None	G4?	S1S2	2B.3	null	North coast coniferous forest
<i>Lasiurus blossevillii</i>	western red bat	Mammals	AMACC05060	128	2	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_H-High Priority	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
<i>Lasiurus cinereus</i>	hoary bat	Mammals	AMACC05030	238	3	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
<i>Lasthenia burkei</i>	Burke's goldfields	Dicots	PDAST5L010	36	22	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Meadow & seep, Vernal pool, Wetland
<i>Lasthenia californica</i> ssp. <i>bakeri</i>	Baker's goldfields	Dicots	PDAST5L0C4	19	7	None	None	G3T1	S1	1B.2	null	Closed-cone coniferous forest, Coastal scrub, Marsh & swamp, Meadow & seep
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	Dicots	PDAST5L0C5	59	6	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub, Coastal dunes, Coastal scrub
<i>Lasthenia conjugens</i>	Contra Costa goldfields	Dicots	PDAST5L040	36	1	Endangered	None	G1	S1	1B.1	SB_UCBG-UC Botanical Garden at Berkeley	Alkali playa, Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland

Legenere limosa	legenere	Dicots	PDCAM0C010	83	1	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool, Wetland
Leptosiphon jepsonii	Jepson's leptosiphon	Dicots	PDPLM09140	51	1	None	None	G2G3	S2S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Leptosiphon rosaceus	rose leptosiphon	Dicots	PDPLM09180	31	1	None	None	G1	S1	1B.1	null	Coastal bluff scrub
Lessingia arachnoidea	Crystal Springs lessingia	Dicots	PDAST5S0C0	11	3	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Cismontane woodland, Coastal scrub, Ultramafic, Valley & foothill grassland
Lichnanthe ursina	bumblebee scarab beetle	Insects	IICOL67020	8	4	None	None	G2	S2	null	null	Coastal dunes
Lilium pardalinum ssp. pitkinense	Pitkin Marsh lily	Monocots	PMLIL1A0H3	4	3	Endangered	Endangered	G5T1	S1	1B.1	SB_BerrySB-Berry Seed Bank, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Cismontane woodland, Freshwater marsh, Marsh & swamp, Meadow & seep, Wetland
Limnanthes vinculans	Sebastopol meadowfoam	Dicots	PDLIM02090	46	34	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	508	4	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Lupinus tidestromii	Tidestrom's lupine	Dicots	PDFAB2B3Y0	21	2	Endangered	Endangered	G1	S1	1B.1	null	Coastal dunes
Microseris paludosa	marsh microseris	Dicots	PDAST6E0D0	38	3	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, SB_UCSC-UC Santa Cruz	Cismontane woodland, Closed-cone coniferous forest, Coastal scrub, Valley & foothill grassland
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
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	PDPLM0C0E1	64	12	None	None	G4T2	S2	1B.1	null	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	Dicots	PDPLM0C0E5	8	1	Endangered	Endangered	G4T1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Vernal pool, Wetland
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	CTT52110CA	53	1	None	None	G3	S3.2	null	null	Marsh & swamp, Wetland
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	6	None	None	G3	S3.1	null	null	Vernal pool, Wetland
Northern Vernal Pool	Northern Vernal Pool	Herbaceous	CTT44100CA	20	2	None	None	G2	S2.1	null	null	Vernal pool, Wetland
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	Fish	AFCHA02034	23	14	Endangered	Endangered	G5T2Q	S2	null	AFS_EN-Endangered	Aquatic
Oncorhynchus mykiss irideus pop. 8	steelhead - central	Fish	AFCHA0209G	44	8	Threatened	None	G5T2T3Q	S2S3	null	AFS_TH-Threatened	Aquatic, Sacramento/San

	California coast DPS											Joaquin flowing waters
Pandion haliaetus	osprey	Birds	ABNKC01010	504	5	None	None	G5	S4	null	CDF_S-Sensitive, CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest
Pelecanus occidentalis californicus	California brown pelican	Birds	ABNFC01021	27	1	Delisted	Delisted	G4T3T4	S3	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, USFS_S-Sensitive	null
Piperia candida	white-flowered rein orchid	Monocots	PMORC1X050	222	2	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	1	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
Polemonium carneum	Oregon polemonium	Dicots	PDPLM0E050	16	1	None	None	G3G4	S2	2B.2	null	Coastal prairie, Coastal scrub, Lower montane coniferous forest
Polygonum marinense	Marin knotweed	Dicots	PDPGN0L1C0	32	2	None	None	G2Q	S2	3.1	null	Brackish marsh, Marsh & swamp, Salt marsh, Wetland
Potentilla uliginosa	Cunningham Marsh cinquefoil	Dicots	PDROS1B4A0	1	1	None	None	GX	SX	1A	null	Marsh & swamp, Wetland
Rana boylei	foothill yellow-legged frog	Amphibians	AAABH01050	2478	39	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
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1671	32	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Rhynchospora alba	white beaked-rush	Monocots	PMCYP0N010	17	1	None	None	G5	S2	2B.2	IUCN_LC-Least Concern	Bog & fen, Marsh & swamp, Meadow & seep, Wetland
Rhynchospora californica	California beaked-rush	Monocots	PMCYP0N060	9	3	None	None	G1	S1	1B.1	null	Freshwater marsh, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Wetland
Rhynchospora capitellata	brownish beaked-rush	Monocots	PMCYP0N080	25	2	None	None	G5	S1	2B.2	IUCN_LC-Least Concern	Lower montane coniferous forest, Marsh & swamp, Meadow & seep,

												Upper montane coniferous forest, Wetland
Rhynchospora globularis	round-headed beaked-rush	Monocots	PMCYP0N0W0	2	2	None	None	G5	S1	2B.1	null	Freshwater marsh, Marsh & swamp, Wetland
Riparia riparia	bank swallow	Birds	ABPAU08010	298	1	None	Threatened	G5	S2	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Riparian scrub, Riparian woodland
Sidalcea calycosa ssp. rhizomata	Point Reyes checkerbloom	Dicots	PDMAL11012	34	2	None	None	G5T2	S2	1B.2	null	Freshwater marsh, Marsh & swamp, Wetland
Sidalcea malviflora ssp. purpurea	purple-stemmed checkerbloom	Dicots	PDMAL110FL	19	6	None	None	G5T1	S1	1B.2	BLM_S-Sensitive	Broadleaved upland forest, Coastal prairie
Silene scouleri ssp. scouleri	Scouler's catchfly	Dicots	PDCAR0U1MC	23	2	None	None	G5T4T5	S2S3	2B.2	null	Coastal bluff scrub, Coastal prairie, Valley & foothill grassland
Speyeria zerene myrteae	Myrtle's silverspot butterfly	Insects	IILEPJ608C	17	10	Endangered	None	G5T1	S1	null	null	Coastal dunes
Spirinchus thaleichthys	longfin smelt	Fish	AFCHB03010	46	2	Candidate	Threatened	G5	S1	null	null	Aquatic, Estuary
Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	Dicots	PDBRA2G0J4	16	5	None	None	G4T2	S2	1B.3	SB_UCSC-UC Santa Cruz	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Streptanthus morrisonii ssp. hirtiflorus	Dorr's Cabin jewelflower	Dicots	PDBRA2G0S2	1	1	None	None	G2T1	S1	1B.2	null	Chaparral, Closed-cone coniferous forest, Ultramafic
Streptanthus morrisonii ssp. morrisonii	Morrison's jewelflower	Dicots	PDBRA2G0S3	5	3	None	None	G2T1?	S1?	1B.2	BLM_S-Sensitive	Chaparral, Ultramafic
Syncaris pacifica	California freshwater shrimp	Crustaceans	ICMAL27010	20	9	Endangered	Endangered	G2	S2	null	IUCN_EN-Endangered	Aquatic, Sacramento/San Joaquin flowing waters
Taricha rivularis	red-bellied newt	Amphibians	AAAAF02020	136	12	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	12	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
Thaleichthys pacificus	eulachon	Fish	AFCHB04010	10	1	Threatened	None	G5	S2	null	null	Aquatic, Klamath/North coast flowing waters
Thamnomia vermicularis	whiteworm lichen	Lichens	NLTES43860	1	1	None	None	G5	S1	2B.1	null	Chaparral, Valley & foothill grassland
Trifolium amoenum	two-fork clover	Dicots	PDFAB40040	26	8	Endangered	None	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley, SB_USDA-US Dept of Agriculture	Coastal bluff scrub, Ultramafic, Valley & foothill grassland
Trifolium buckwestiorum	Santa Cruz clover	Dicots	PDFAB402W0	64	3	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	3	None	None	G2	S2	1B.2	null	Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland
Triphysaria floribunda	San Francisco owl's-clover	Dicots	PDSCR2T010	50	1	None	None	G2?	S2?	1B.2	null	Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland
Triquetrella californica	coastal triquetrella	Bryophytes	NBMUS7S010	13	2	None	None	G2	S2	1B.2	USFS_S-Sensitive	Coastal bluff scrub, Coastal scrub
Tryonia imitator	mimic tryonia (=California brackishwater snail)	Mollusks	IMGASJ7040	39	1	None	None	G2	S2	null	IUCN_DD-Data Deficient	Aquatic, Brackish marsh, Estuary, Lagoon, Marsh & swamp, Salt marsh, Wetland
Usnea longissima	Methuselah's beard lichen	Lichens	NLLEC5P420	206	4	None	None	G4	S4	4.2	BLM_S-Sensitive	Broadleaved upland forest, North coast coniferous forest, Oldgrowth, Redwood
Vespericola marinensis	Marin hesperian	Mollusks	IMGASA4140	23	1	None	None	G2	S2	null	null	Chaparral, Meadow & seep, North coast coniferous forest, Riparian woodland
Viburnum ellipticum	oval-leaved viburnum	Dicots	PDCPR07080	39	1	None	None	G4G5	S3?	2B.3	null	Chaparral, Cismontane woodland, Lower montane coniferous forest