

**Introduction:**

Trout Unlimited, Inc. (TU) will implement the Potrero Creek Fish Passage Project (Project) with the purpose of providing fish passage and improving flood conveyance while providing and maintaining safe vehicle access across Potrero Creek to existing commercial facilities at the Carmel Valley Athletic Club (CVAC). The project is designed to remove an existing corroded 100-foot long, 54-inch diameter steel pipe and replace it with a single multi-plate arched culvert. The arched culvert will be approximately 100 feet long, have a 12-foot-10-inch span, 8-foot-4-inch rise and will provide a 20-foot roadway width. The culvert will be embedded approximately 3.5 feet below the channel grade and backfilled with native streambed material to maintain a natural channel bottom that will provide fish passage opportunities similar to adjoining reaches of the channel. A concrete headwall will be installed at the inlet of the culvert. Rock slope protection will be used to protect the right bank and paved road at the outlet. The left bank will be left as is, to minimize disturbance to an existing group of sycamore trees. The inlet elevation of the proposed culvert will roughly match that of the existing culvert. Engineered streambed material (ESM) will be installed beginning 8.5 feet upstream and extending to 31.5 feet downstream of the proposed culvert to conform to the existing thalweg.

The Potrero Creek watershed is an important, but underutilized steelhead spawning and rearing tributary of the Carmel River watershed. The confluence of Potrero Creek and Carmel River is approximately four miles from the Pacific Ocean and Potrero Creek is the first tributary available to steelhead after migrating upstream from the ocean. The lower reaches of this stream are impacted by the over-drafting of the Carmel River riparian aquifer and similar to the mainstem Carmel River, dries down in late spring through the summer. High flows associated with winter storms re-water these lower reaches and provide migration opportunities for all life stages of steelhead trout (*Oncorhynchus mykiss*) into and out of the mid- and upper portion of Potrero Creek, which remain perennial and cool, even in the drought years.

In 2016, TU staff met with the several landowners in the lower Potrero Creek area including Quail Lodge and Golf Club, CVAC and the Santa Lucia Conservancy. Each landowner agreed to cooperate with TU on a project to fully assess the identified barriers and to allow restoration design engineers to offer projects which could remediate each barrier. Based on those discussions, the California Coastal Conservancy awarded a Plan/Design grant of Carmel River Settlement Fund dollars to TU to assess and design projects at four locations including this project's pipe culvert.

Fish Passage conditions were assessed at the Lower CVAC culvert using

# Potrero Creek Fish Passage/Lower Culvert Project – Carmel Valley Athletic Club, Carmel Valley

**2021**

“Fish Xing” analysis as described in *California Salmonid Stream Habitat Restoration Manual Volume II Section IX* [<https://www.wildlife.ca.gov/Grants/FRGP/Guidance>] and found the culvert to be a depth and burst speed barrier at lows flows and a complete velocity barrier at high flows. One hundred percent designs and specifications were completed July 2019, funded by the Carmel River Settlement Funds, administered by the California Coastal Conservancy.

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 II Section X11. Fish Passage Design and Implementation* [<https://www.wildlife.ca.gov/Grants/FRGP/Guidance>].

## **Objective(s):**

Remove an existing undersized smooth steel pipe culvert which are full barriers to fish passage on Potrero Creek, and replace it with a multi-plate arched culvert to provide fish passage, improve flood conveyance and allow landowner access across the creek.

## **Project Description:**

### **Location:**

Project site is located on Potrero Creek, tributary to the Carmel River in Monterey County, in unincorporated Carmel Valley. Project area is located on the CVAC property approximately 0.5 river miles upstream of the confluence of Potrero Creek and the mainstem of the Carmel River, the confluence being approximately four river miles from the Pacific Ocean.

Access to the site is from county-maintained Rancho San Carlos Road approximately one mile from Carmel Valley Road. The culvert/road crossing serves as the pedestrian and automobile access across Potrero Creek to offices and athletic club facilities

Project coordinates at center of the Project area are Latitude 36.528938; Longitude -121.86733.

### **Project Set Up:**

TU staff members will act as the Project Manager and Grant Administrator. TU will hire and oversee subcontractors (Waterways Consulting Inc., Alnus Ecological, Resource Conservation District of Monterey County (RCD), and

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Cultural Resources contractor (Humboldt State University), coordinate grant reporting, invoicing and communications between landowner, CDFW and subcontractors. TU will additionally conduct photo monitoring and follow up Post Project monitoring. Tasks 1,2,3,4.

Waterways Consulting Inc. and their subcontractor team of Streeter Group and CMAG Engineering Inc. (the Project design team consisting of registered civil engineers, structural and geotechnical engineers), will be sub-contracted to provide construction contractor procurement, construction management services and oversight, including permit support, construction staking, construction observations, construction site management and As-Built Drawings. Tasks 2,3,4.

Alnus Ecological will be subcontracted to conduct and oversee biological services such as site de-watering and diversion (if needed) and re-watering of the stream. In addition, Alnus Ecological staff will conduct contractor education regarding sensitive and listed species and provide avoidance measures and will rescue and relocate fish prior to dewatering activities. Tasks 2,3.

TU will sub-contract with RCD of Monterey County for acquisition of local (county) permits and CDFW Lake and Streambed Alteration 1602 Agreement and Botanicla Surveys. Executive Director Paul Robins will secure local and state permits as needed. Task 2.

Humboldt State University Cultural Resource Survey Sub-contractor will conduct Cultural Resource Surveys (Archaeological and Paleontological) consistent with the requirements of CEQA. Task 2.

Construction Contractor (TBD) with experience working on stream and stream restoration projects will be selected and sub-contracted for all construction related items including removal of the existing culvert, construction of the new culvert and all associated activities pertaining to the approved design plans. Task 3.

## **Materials:**

All construction related materials including multi-plate arched culvert, concrete, structural rebar, rock slope protection, erosion fabric, structural fill and other will be provided by selected construction contractor per bid.

**Tasks:**

**Task 1: Project Management and Administration**

Trout Unlimited will provide technical and administrative services associated with performing and completing the work for this Project, including project management, preparing, and submitting invoices and progress reports, preparing Annual Reports, developing, and managing subcontracts, convening project team meetings, developing project information, coordinating with funders and partners, coordinating with landowners during the project, data management and disseminating project materials and results.

Timeline: June 15, 2022, through September 30, 2024

**Task 2: Project Pre-Construction Activities and Surveys**

**Task 2.1. Permit Acquisition**

TU will contract with the RCD to secure all necessary permits, not provided by FRGP, including CDFW 1600 Lake and Streambed Alteration Agreement (LSAA), any county or local permits and any other permit or authorization required for capturing and handling steelhead trout and California red-legged frogs (*Rana draytonii*). A hard copy of all permits and resolutions obtained for the project will be submitted to the Grant Manager prior to the commencement of construction.

**Task 2.2. Submission of Work Schedule**

Permittee will submit a hard and electronic copy of final work schedule within two (2) weeks after execution of the grant, to Grant Manager and Grantor Engineer.

**Task 2.3. Resource Surveys**

Alnus Ecological will conduct pre-construction surveys following US Fish and Wildlife guidance protocol (2005). Surveys will be conducted by a qualified biologist (one holding appropriate permit) at least two weeks before the onset of construction activities. If needed, Alnus Ecological will move California red-legged frog and steelhead trout from the construction area and relocate them to appropriate habitat. In addition, monitoring of the channel will be conducted by a qualified biologist, permitted to handle the species, during the installation of coffer dams (or other dewatering structures) and during construction.

Humboldt State University will prepare the Cultural Resources Surveys including the archaeological and paleontological surveys, consistent with the requirements of CEQA for the subject site.

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**Task 2.4. Staging and Mobilization**

TU and Waterways Consulting Inc. will conduct site preparation surveys to inform on-site operations, for the safe movement of personnel, equipment, supplies, and incidentals to the work site. The selected construction subcontractor will conduct site preparation for the establishment of all offices and other facilities necessary for work on the project and for all other work and operation which must be performed to complete tasks.

TU will establish Photo points which will be used throughout the project to document work site conditions.

Timeline: July 1, 2022, through August 1, 2022

**Task 3: Construction**

All construction will be done according to the accepted project specifications and accepted Final Engineering Plans. The Permittee will hold a pre-construction meeting with the Grant Manager, Grantor Engineer, and subcontractor representatives to establish roles and responsibilities and set expectations for record keeping, scheduling, monitoring, safety, sensitive species, and invasive species protocols.

The Permittee will notify the Grant Manager a minimum of two weeks prior to the start of construction to enable the Grant Manager to begin monitoring of the project. Once each week during construction, the Permittee shall electronically submit to the Grant Manager and the Grantor Engineer a construction progress report and required photos.

Permittee shall provide a dewatering plan, at least one month before the commencement to dewatering, to the Grant Manager for review and acceptance. All materials used for dewatering shall be removed and disposed of appropriately off site at the completion of the project.

Alnus Ecological will conduct the following:

- De-watering and fish relocation (Note: it is expected that the stream will be dry during construction which will eliminate the need for fish relocation).
- Re-watering/diversion removal.

Construction Subcontractor TBD will conduct the following:

- Clearing and grubbing of vegetation and removal of debris from the construction site. All material removed shall be disposed of in accordance with all local regulations. Vegetation located beyond the limits for clearing and grubbing shall be protected from damage.

- Construct temporary vehicle access across road to ongoing commercial activities at CVAC.
- Demolish existing culvert/road crossing. Demolition will be done in accordance with all local regulations.
- Excavation and sub-grade preparation.
- Cast in place concrete foundations installation.
- Culvert installation and road re-constructed.
- Channel to be restored and rock slope protection to stabilize the banks and provide protection for newly installed culverts.
- Re-location of utilities.

Waterways Consulting will conduct the following:

- As-Built Plans and Longitudinal Profile.

Timeline: July 1, 2022, through December 1, 2023

#### **Task 4: Post Construction Riparian Restoration and Monitoring**

TU, Waterways Consulting Inc., and selected construction subcontractor will, upon completion of construction during the following fall and winter, restore disturbed riparian habitat (e.g., stream banks in the vicinity disturbed area). This will include installation of erosion control fabric, and revegetation with native seeding, plants, and live stakes (per Revegetation Plan shown on Construction design drawing in Supplemental Information) and will be maintained to a minimum of eighty five percent (85%) coverage of the seeded area three years after the revegetation is complete. TU will monitor revegetation success and re-plant as needed.

Photo points established during Pre-construction Activities will be used throughout the project to document work site conditions. Visual inspection of site and stability of project will be conducted after storm events.

#### **Deliverables:**

##### **Task 1: Project Management and Administration**

- Invoices
- Progress Reports
- Annual Reports
- Subcontractor Contracts
- Final Landowner Access Agreements
- Draft Final Report, Final Report
- Data generated as a result of this project

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**Task 2: Project Pre-Construction Activities and Surveys**

- Copies of all permits secured by the Permittee
- Final Work Schedule
- Cultural Resources Survey Report
- Fish and California red-legged frog surveys reports
- Pre-project photo documentation

**Task 3: Construction**

- Notification to CDFW of the construction start date
- Construction inspection checklist and weekly monitoring photo documentation
- Dewatering Plan if dewatering is required
- Completed construction and final report of permits condition compliance
- As-Built Surveys and Plans

**Task 4: Post Construction Riparian Restoration and Monitoring**

- Re-vegetation of construction site and staging area
- Reports of visual inspections after storm events and final photo monitoring documentation

Timeline: July 1, 2023, through August 15, 2024

**Timelines:**

**Task 1: Project Management and Administration**

- Project management will begin once grant agreement is finalized and will be ongoing during life of the grant. (June 15, 2022 – September 30, 2024)
- Invoices (June 15, 2022, to September 30, 2024)
- Progress Reports (Quarterly from July 15, 2022, to September 30, 2024)
- Annual Reports (December 1, 2022; December 1, 2023)
- Subcontractor Contracts (June 15, 2022, to August 1, 2022)
- Final Landowner Access Agreements (Due by June 15, 2022)
- Revegetation Plan (with Final Designs July 1, 2022)
- Draft Final Report (May 15, 2024, to June 15, 2024)
- Final Report (August 15, 2024)
- Data generated as a result of this project (June 15, 2022 – August 15, 2024)

**Task 2: Preconstruction Activities and Surveys**

- Final Work Schedule (July 1, 2023)
- Permits (July 1, 2023)
- Species Surveys Reports, Cultural Resource Survey Report and Site Preparation with Photo Documentation (August 1, 2023)

**Task 3: Construction**

- Construction activities will take place from August 2, 2023 – October 31, 2023
- Notification of the construction start date (Two weeks prior to construction approximately July 15, 2023)
- Electronic copies of weekly construction reports and monitoring photo documentation (August 2, 2023, to October 31, 2023)
- Dewatering Plan (July 2, 2023, if required)
- Fish Relocation Report if required (October 31, 2023)
- Completed construction and final report of permits condition compliance (December 1, 2023)
- As-Built Surveys and Plans (December 1, 2023)

**Task 4: Post Construction Riparian Restoration and Monitoring**

- Revegetation on-the-ground activities will take place from November 1, 2023 – June 15, 2024
- Revegetation Report (August 15, 2024)
- Reports of visual inspections after storm events and final photo monitoring documentation (November 1, 2023, to June 15, 2024)

**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 projects start and end dates, within this timeframe, are at the discretion of the California Department of Fish and Wildlife.

No equipment maintenance will be performed within or near the stream channel where pollutants (such as petroleum products) from the equipment may enter the channel via rainfall or runoff. Appropriate spill containment devices (e.g., oil absorbent pads, tarpaulins) will be used when refueling equipment. Any and all equipment will be removed from the streambed and flood plain areas at the end of each workday.

All equipment and gear will be brushed with a stiff brush prior to leaving each stretch of stream to avoid the transport of aquatic invasive species (AIS). When transporting traps out of the area, each numbered trap will be bagged in its own bag to avoid cross contamination during transport in and out of the work area. All crew members will decontaminate equipment and shoes for AIS according to the standards detailed in the California Department of Fish & Wildlife Aquatic Invasive Species Decontamination Protocol.

During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following

construction, all trash and construction debris will be removed from work areas.

If fish relocation will be required, the Permittee shall notify the Grantor Project Manager a minimum of five working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Grantor personnel to oversee the implementation of the water diversion plan and the safe removal and relocation 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 Grant Manager and pursuant to conditions in the USACE Regional General Permit and NMFS Biological Opinion.
- d. All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000.
- e. USFWS Approved fisheries biologists will provide fish relocation data via the Permittee to the CDFW Grant Manager on a form provided by CDFW.

The project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and criteria for fish passage as described in Volume II, Part IX, of the *California Salmonid Stream Habitat Restoration Manual*. The engineered plans for the bridge (culvert) installation shall be visually reviewed and authorized by NOAA Fisheries or California Department of Fish and Wildlife engineers prior to commencement of work.

All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*, Volume I, and Volume II Part XI and Part XII. The Permittee/landowner will maintain the new crossing, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

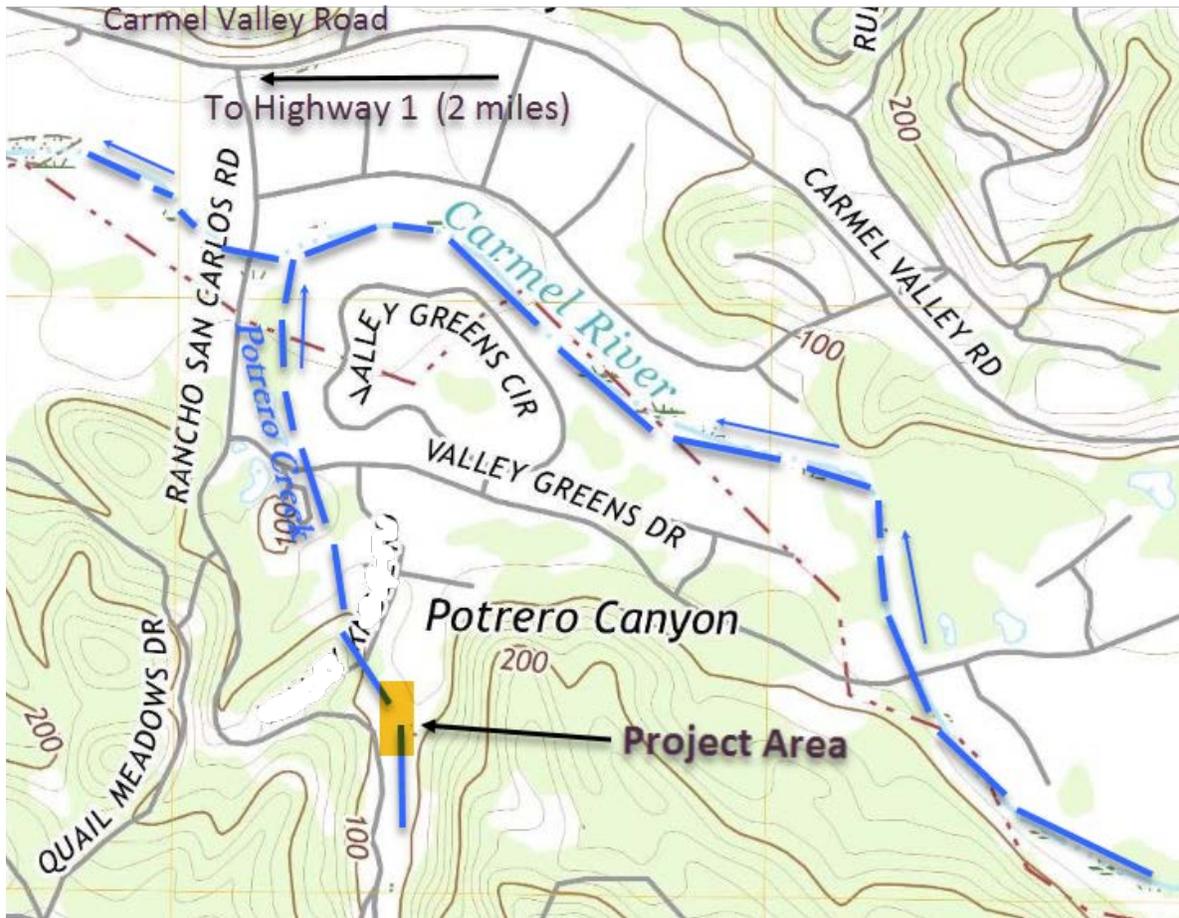
# POTRERO CREEK FISH PASSAGE / LOWER CULVERT PROJECT

Carmel Valley Athletic Club

Proposal Number: 1725723 Proposal Type: FP Fish Passage

## Supplemental Information Topographic Survey

SEASIDE QUADRANGLE  
CALIFORNIA-MONTEREY CO.  
7.5-MINUTE SERIES



Monterey O E N	Marina	Salinas
Monterey	Seaside	Spreckels
Soberanes Point	Mount Carmel	Carmel Valley

ADJOINING 7.5' QUADRANGLES

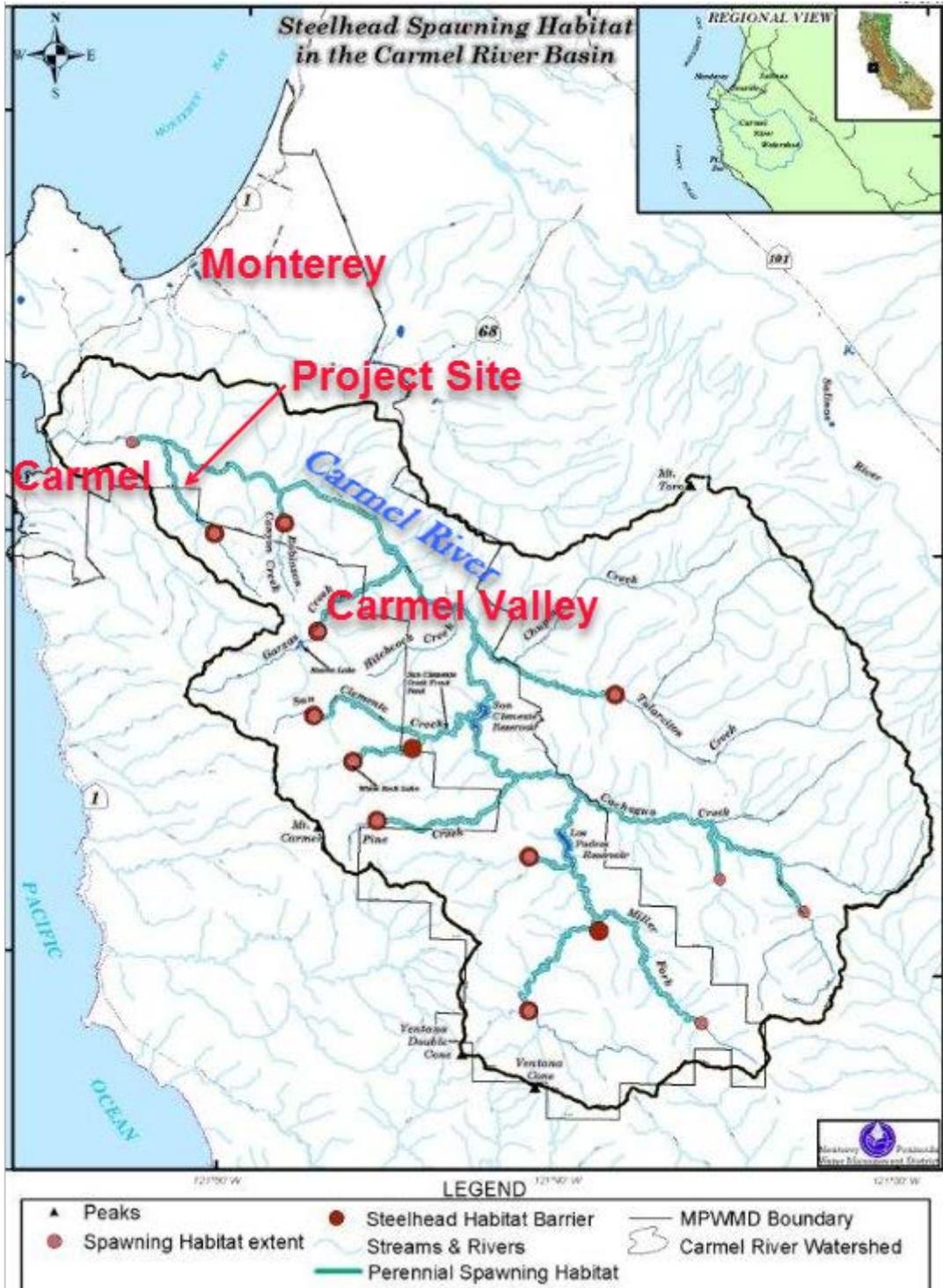
# POTRERO CREEK FISH PASSAGE / LOWER CULVERT PROJECT

Carmel Valley Athletic Club

Proposal Number: 1725723 Proposal Type: FP Fish Passage

## Supplemental Information

### Watershed Map and Site Location





# Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Seaside (3612157) OR Spreckels (3612156) OR Carmel Valley (3612146) OR Mt. Carmel (3612147) OR Soberanes Point (3612148) OR Monterey (3612158) OR Marina (3612167) OR Salinas (3612166))

Possible species within the Seaside and surrounding quads for 1725723 - Potrero Creek Fish Passage / Lower Culvert Project - Carmel Valley Athletic Club, Carmel Valley, Monterey County

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Agelaius tricolor</b> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<b>Agrostis lacuna-vernalis</b> vernal pool bent grass	PMPOA041N0	None	None	G1	S1	1B.1
<b>Allium hickmanii</b> Hickman's onion	PMLIL02140	None	None	G2	S2	1B.2
<b>Ambystoma californiense pop. 1</b> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
<b>Anniella pulchra</b> Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<b>Arctostaphylos edmundsii</b> Little Sur manzanita	PDERI04260	None	None	G2	S2	1B.2
<b>Arctostaphylos hookeri ssp. hookeri</b> Hooker's manzanita	PDERI040J1	None	None	G3T2	S2	1B.2
<b>Arctostaphylos montereyensis</b> Toro manzanita	PDERI040R0	None	None	G2?	S2?	1B.2
<b>Arctostaphylos pajaroensis</b> Pajaro manzanita	PDERI04100	None	None	G1	S1	1B.1
<b>Arctostaphylos pumila</b> sandmat manzanita	PDERI04180	None	None	G1	S1	1B.2
<b>Astragalus tener var. tener</b> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<b>Astragalus tener var. titi</b> coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
<b>Athene cunicularia</b> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<b>Bombus caliginosus</b> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<b>Bombus occidentalis</b> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<b>Buteo regalis</b> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<b>Castilleja ambigua var. insalutata</b> pink Johnny-nip	PDSCR0D403	None	None	G4T2	S2	1B.1
<b>Central Dune Scrub</b> Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
<b>Central Maritime Chaparral</b> Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Centromadia parryi ssp. congdonii</i></b> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<b><i>Charadrius nivosus nivosus</i></b> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
<b><i>Chorizanthe minutilflora</i></b> Fort Ord spineflower	PDPGN04100	None	None	G1	S1	1B.2
<b><i>Chorizanthe pungens var. pungens</i></b> Monterey spineflower	PDPGN040M2	Threatened	None	G2T2	S2	1B.2
<b><i>Clarkia jolonensis</i></b> Jolon clarkia	PDONA050L0	None	None	G2	S2	1B.2
<b><i>Coelus globosus</i></b> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<b><i>Collinsia multicolor</i></b> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<b><i>Cordylanthus rigidus ssp. littoralis</i></b> seaside bird's-beak	PDSCR0J0P2	None	Endangered	G5T2	S2	1B.1
<b><i>Corynorhinus townsendii</i></b> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<b><i>Coturnicops noveboracensis</i></b> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<b><i>Cypseloides niger</i></b> black swift	ABNUA01010	None	None	G4	S2	SSC
<b><i>Danaus plexippus pop. 1</i></b> monarch - California overwintering population	IILEPP2012	Candidate	None	G4T2T3	S2S3	
<b><i>Delphinium californicum ssp. interius</i></b> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<b><i>Delphinium hutchinsoniae</i></b> Hutchinson's larkspur	PDRAN0B0V0	None	None	G2	S2	1B.2
<b><i>Delphinium umbraculorum</i></b> umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
<b><i>Emys marmorata</i></b> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<b><i>Eremophila alpestris actia</i></b> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<b><i>Ericameria fasciculata</i></b> Eastwood's goldenbush	PDAST3L080	None	None	G2	S2	1B.1
<b><i>Eriogonum nortonii</i></b> Pinnacles buckwheat	PDPGN08470	None	None	G2	S2	1B.3
<b><i>Erysimum ammophilum</i></b> sand-loving wallflower	PDBRA16010	None	None	G2	S2	1B.2
<b><i>Erysimum menziesii</i></b> Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1



Selected Elements by Scientific Name  
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California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	
<i>Eumetopias jubatus</i> Steller (=northern) sea-lion	AMAJC03010	Delisted	None	G3	S2	
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	IILEPG2026	Endangered	None	G5T1T2	S1	
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia tenuiflora ssp. arenaria</i> Monterey gilia	PDPLM041P2	Endangered	Threatened	G3G4T2	S2	1B.2
<i>Hesperocyparis goveniana</i> Gowen cypress	PGCUP04031	Threatened	None	G1	S1	1B.2
<i>Hesperocyparis macrocarpa</i> Monterey cypress	PGCUP04060	None	None	G1	S1	1B.2
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDR0S0W043	None	None	G4T1?	S1?	1B.1
<i>Horkelia marinensis</i> Point Reyes horkelia	PDR0S0W0B0	None	None	G2	S2	1B.2
<i>Hydrobates homochroa</i> ashy storm-petrel	ABNDC04030	None	None	G2	S2	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G3G4	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lavinia exilicauda harengus</i> Monterey hitch	AFCJB19013	None	None	G4T2T4	S2S4	SSC
<i>Layia carnosa</i> beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus tidestromii</i> Tidestrom's lupine	PDFAB2B3Y0	Endangered	Endangered	G1	S1	1B.1
<i>Malacothamnus palmeri var. involucratus</i> Carmel Valley bush-mallow	PDMAL0Q0B1	None	None	G3T2Q	S2	1B.2
<i>Malacothrix saxatilis var. arachnoidea</i> Carmel Valley malacothrix	PDAST660C2	None	None	G5T2	S2	1B.2



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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Meconella oregana</i></b> Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
<b><i>Microseris paludosa</i></b> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<b><i>Monardella sinuata ssp. nigrescens</i></b> northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
<b><i>Monolopia gracilens</i></b> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<b>Monterey Cypress Forest</b> Monterey Cypress Forest	CTT83150CA	None	None	G1	S1.2	
<b>Monterey Pine Forest</b> Monterey Pine Forest	CTT83130CA	None	None	G1	S1.1	
<b>Monterey Pygmy Cypress Forest</b> Monterey Pygmy Cypress Forest	CTT83162CA	None	None	G1	S1.1	
<b><i>Neotoma macrotis luciana</i></b> Monterey dusky-footed woodrat	AMAFF08083	None	None	G5T3	S3	SSC
<b>Northern Bishop Pine Forest</b> Northern Bishop Pine Forest	CTT83121CA	None	None	G2	S2.2	
<b>Northern Coastal Salt Marsh</b> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<b><i>Oncorhynchus mykiss irideus pop. 9</i></b> steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
<b><i>Pelecanus occidentalis californicus</i></b> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
<b><i>Phrynosoma blainvillii</i></b> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<b><i>Pinus radiata</i></b> Monterey pine	PGPIN040V0	None	None	G1	S1	1B.1
<b><i>Piperia yadonii</i></b> Yadon's rein orchid	PMORC1X070	Endangered	None	G1	S1	1B.1
<b><i>Plagiobothrys chorisianus var. chorisianus</i></b> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<b><i>Plagiobothrys uncinatus</i></b> hooked popcornflower	PDBOR0V170	None	None	G2	S2	1B.2
<b><i>Potentilla hickmanii</i></b> Hickman's cinquefoil	PDROS1B370	Endangered	Endangered	G1	S1	1B.1
<b><i>Ramalina thrausta</i></b> angel's hair lichen	NLLEC3S340	None	None	G5?	S2S3	2B.1
<b><i>Rana boylei</i></b> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<b><i>Rana draytonii</i></b> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC



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



<b>Species</b>	<b>Element Code</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Global Rank</b>	<b>State Rank</b>	<b>Rare Plant Rank/CDFW SSC or FP</b>
<b><i>Reithrodontomys megalotis distichlis</i></b> Salinas harvest mouse	AMAFF02032	None	None	G5T1	S1	
<b><i>Riparia riparia</i></b> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<b><i>Rosa pinetorum</i></b> pine rose	PDROS1J0W0	None	None	G2	S2	1B.2
<b><i>Sidalcea malachroides</i></b> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<b><i>Sorex ornatus salarius</i></b> Monterey shrew	AMABA01105	None	None	G5T1T2	S1S2	SSC
<b><i>Spea hammondii</i></b> western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
<b><i>Stebbinsoseris decipiens</i></b> Santa Cruz microsaris	PDAST6E050	None	None	G2	S2	1B.2
<b><i>Sulcaria spiralis</i></b> twisted horsehair lichen	NLT0042560	None	None	G3G4	S2	1B.2
<b><i>Taricha torosa</i></b> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<b><i>Taxidea taxus</i></b> American badger	AMAJF04010	None	None	G5	S3	SSC
<b><i>Thamnophis hammondii</i></b> two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
<b><i>Tortula californica</i></b> California screw moss	NBMUS7L090	None	None	G2G3	S2?	1B.2
<b><i>Trifolium buckwestiorum</i></b> Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
<b><i>Trifolium hydrophilum</i></b> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<b><i>Trifolium polyodon</i></b> Pacific Grove clover	PDFAB402H0	None	Rare	G1	S1	1B.1
<b><i>Trifolium trichocalyx</i></b> Monterey clover	PDFAB402J0	Endangered	Endangered	G1	S1	1B.1
<b>Valley Needlegrass Grassland</b> Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

**Record Count: 99**