Project: Harvey Diversion Fish Passage Restoration Project: Request for Proposal

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California Trout Inc.
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CALIFORNIA TROUT

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Project: Harvey Diversion Fish Passage Restoration Project: Request for Proposal (RFP)

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RFP Timeline:

Event	Date
RFP Distribution to Consultants	10/22/2018
Deadline for submission of bid proposals	11/09/2018
Consultant Selection	11/16/2018

Project Background

California Trout Inc. (CalTrout) is seeking an environmental engineering consultant with fish passage design expertise to submit a competitive bid to produce 100% engineering designs and provide permitting consultation for the fish passage remediation of Harvey Diversion as selected by the technical review team in the Alternative Analysis Technical Memo (*RBF Consulting. 2009b. Santa Paula Creek Watershed Planning Project: Alternatives Analysis - Harvey Diversion Technical Memorandum. Prepared for the Santa Paula Creek Fish Ladder Authority and the California Department of Fish and Game*).

Harvey Diversion is located on Santa Paula Creek, a tributary of the Santa Clara River. The Santa Clara River watershed is one of the largest basins in Southern California that can support anadromous runs of steelhead, and is identified as Core 1 population in the National Marine Fisheries Service's Southern Steelhead Recovery Plan.

The Harvey Diversion structure is located along the creek within the unincorporated portion of Ventura County. The site is approximately 3.6 miles upstream from the confluence with the Santa Clara River. While diversion of water from Santa Paula Creek for agricultural purposes began as early as 1860, the current Harvey Diversion was built in 1910. Over time, the scouring effect of falling water and general channel incision caused the elevation of the creek bed below the Diversion to decline significantly. A concrete and steel "jump box" fish ladder has been attached to the Diversion. It was originally constructed in 1939, rebuilt in 1950, and then completely rebuilt as a reinforced concrete fish ladder in 2000.

As the creek bed has continued to degrade downstream of the diversion structure, additional steel jump boxes have been added on the downstream end of the ladder. A 2005 storm caused significant damage to the ladder. The inlet to the fish ladder at the upstream end of the Diversion was completely buried by sediment. The steel jump boxes were completely filled with sediment and there was excessive eroding of bed material at the downstream end of the ladder. The outlet drop of the most downstream jump box was no longer providing adequate passage. Maintenance is required to maintain passage and, in recent years, the California Conservation Corps (CCC) has constructed a small, rock weir-like structure below the most downstream jump box as an interim measure to address water surface elevation issue with the existing infrastructure.

Since 2005, the California Department of Fish and Wildlife (CDFW) through its Fisheries Restoration Grant Program (FRGP), in conjunction with the Santa Paula Creek Fish Ladder Joint Powers Authority and National Marine Fisheries Service (NMFS) have been studying the Santa Paula Creek watershed. Multiple environmental consulting firms have completed watershed studies and developed site specific recommendations for improvements at the Harvey Diversion structure to restore passage at this critical location. ("*Geotechnical Study Harvey Diversion*

Modification Santa Paula Creek from Northern Santa Paula to Steckel Park, California," prepared by Fugro Consultants, Inc., October 25, 2011, "*Modeling Sediment Transport in Santa Paula Creek following Harvey Diversion Structure Modification, Revised Technical Memorandum,"* prepared by Stillwater Sciences, February 2012.)

The previous work and recommended improvements are documented in numerous reports and technical studies completed by the project team partners. The extensive work has included geotechnical investigations, sediment transport analysis, biological constraints assessments, refined feasibility analysis and preliminary design studies. Following analysis of these assessment, five passage alternatives were identified:

1. HD-1 No action;
2. HD-2 Complete removal of the Diversion;
3. HD-3 Partial removal of the Diversion and mechanical stabilization of the canyon reach;
4. HD-4 Preservation of the Diversion with downstream stabilization; and
5. HD-5 Realignment of the creek channel;

HD-3 was selected as the preferred alternative for restoration of fish passage at Harvey Diversion.

Project Description

In 2014, CalTrout selected Michael Baker International (MBI, previously RBF) to design the pilot project (Phase-I) in Santa Paula Creek at the Harvey Diversion structure. Phase-I was a scaled down version of the recommended HD-3 plan, and was intended to restore fish passage to the existing fish ladder at the Harvey Diversion while funding was being secured for a Phase-II that would achieve the HD-3 recommendation (*Harvey Diversion Structure – Streambed Modification Project Demonstration Project, Santa Paula Creek: Basis of Design Report – Revised,* Prepared by Michael Baker International, January 2018).

As it stands, the Phase-I designs and analysis were taken to the 90% point of completion. It was then decided by CDFW, that the most productive use of the funding that has been allocated for this project to date would be a project development trajectory that focuses on a single implementation season that achieves complete remediation of the Harvey Diversion fish passage issues.

The project description and scope of work will achieve the recommendations decided upon during the Alternative Analysis for Harvey Diversion Remediation. Alternative HD-3 opts for lowering the Harvey Diversion approximately 10 feet combined with mechanically stabilizing the

reach downstream from the Harvey Diversion through a series of grade control structures. The distance between and configuration of these structure will be determined during the development of the new design. Engineered streambed material will be placed between the grade control structures to rebuild the substrate surface elevation of Santa Paula Creek to its historic profile at this location. The remaining portion of the Harvey Diversion will act as the most upstream grade control structure, stabilizing the current upstream substrate profile as it is today. To maintain water supply to landowner's adjacent to Santa Paula Creek with irrigation rights, an infiltration gallery will be constructed at the site of the diversion structure.

Project Area Description

Santa Paula Creek is a major tributary to the Santa Clara River, draining approximately 44.4 square miles. Santa Paula Creek, in southwest Ventura County, California, is one of three main historical spawning tributaries for the endangered southern steelhead. The Harvey Diversion structure is located along the creek within the unincorporated portion of Ventura County, approximately 3.6 miles upstream from the confluence of Santa Paula Creek and the Santa Clara River, north of the city of Santa Paula, alongside Highway 150. The major tributaries within the lower Santa Paula Creek watershed include Sisar Creek, Anlauf Canyon, and Mud Creek.

The headwaters of the creek are located within the actively uplifting, steep south-facing slopes of the Topatopa Mountains where the maximum watershed elevation is over 2,000 m. In the upper watershed, the creek flows through narrow bedrock canyons with steep channel gradients (>6%) and with the substrate dominated by boulders and cobbles. Lower in the watershed, the creek flows through narrow canyon reaches with predominate bedrock formations and cobble-dominant alluvial deposits before entering into the Santa Clara River. Channel gradients in the lower watershed range from 1.5–2.5% and the channel has incised up to 10 m relative to the adjacent terrace. Currently, many reaches are showing evidence of active incision and channel widening.

Land use within the sub-watershed of Santa Paula Creek remains largely undeveloped compared to other Southern California coastal watersheds. Approximately 65% of the northern portion of the Santa Paula watershed is located within Los Padres National Forest. The vegetation is entirely chaparral, scrub and mixed forest. Land use vegetation cover within the watershed includes 52% scrub/chaparral, 35% mixed evergreen deciduous forest, 10% agricultural/herbaceous grasslands and developed residential comprising the remainder of the watershed. The agricultural/developed areas within the watershed are primarily along the lower Santa Paula Creek reaches, downstream of the Sisar Creek confluence and within Anlauf Canyon and Mud Creek. Agriculture is dominated by citrus orchards and avocado fields.

General Scope of Work

The Harvey Diversion Fish Passage Restoration Project will include the analysis of existing datasets and assessments for this location. The collection and analysis of additional data to support the 100% design and engineering specifications to provide volitional fish passage at Harvey Diversion as demonstrated in HD-3. The scope of work will also include the required data collection and analysis that will lead to engineering specifications and designs for the installation of an infiltration gallery upstream of the diversion's current location. An infiltration gallery is the HD-3 selected alternative method for maintaining irrigation rights, analysis that considers other approaches to continue to provide irrigation at this location will be reviewed by technical review team as well.

The flashiness of the Santa Paula Creek drainage and the sediment transport characteristics of this system require a high level of competency by the selected consultant. The selected consultant will need to demonstrate through analysis and modeling the stability of all grade stabilization elements and the ability of engineering streambed material to alleviate the tendency for bed flow and channel incision within this reach. The project requires the consultant to make the required design iterations available for review as stipulated by technical review team in a timely fashion. This work will lead to the submission of 100% designs, engineering specifications and cost analysis for fish passage remediation of Harvey Diversion. All analysis and design must meet accepted state and federal fish passage criteria and requirements ("*National Marine Fisheries Service (2011) Guidelines for Salmonid Passage at Stream Crossings and Department of Fish and Game criteria for fish passage as described in the Third Edition, Volume II, Part IX, February 2003"*, of the California Salmonid Stream Habitat Restoration Manual, link).

The successful respondent will perform engineering design and project management to complete the project in the time and dollar amount allowed. The engineering team must have demonstrated experience working with fish passage design including team members with expertise in hydraulic analysis, geomorphology, and geotechnical exploration to adequately inform design decisions, as well as demonstrated success with design and implementation of infiltration galleries.

The Scope of Work for Harvey Diversion leading to successful completion of HD-3 includes:

1) Additional topographic survey and geotechnical analyses for infiltration gallery/diversion and grade control design.
2) Perform a feasibility analysis of an infiltration gallery using existing geotechnical reports. Develop additional diversion alternatives that meet CDFW and NOAA fish screen criteria, if necessary.

3) Develop a Basis of Design Report for HD-3 that includes 30% - 40% plans including, but not limited to a site plan, grade control structure plan, profile, and sections, and infiltration gallery/diversion plans, sections, and details.

4) Submit HD-3 plans, engineer's cost estimate, and updated basis of design report for design level at 65%, including civil and restoration designs.

5) Submit 90% HD-3 plans, draft specifications, and engineer's cost estimate, including civil, mechanical, electrical, and restoration designs.

6) Submit HD-3 100% design level for review and acceptance by the grant managers, CDFW Fisheries and NMFS Engineering Team hydraulic engineers, including bid set for construction and design plans.

7) Provide responses to permitting agencies questions and comments regarding fish passage criteria at 30, 65, 90% design levels.

8) Submit list of permits and timeline required for HD-3 fish passage barrier remediation and cost for bio/arch analysis and time estimate for CEQA analysis in consultation with CDFW.

9) Perform project management of HD-3 fish passage barrier remediation in coordinating with grant managers, CalTrout, CDFW and NMFS engineering and subcontractors for fulfilling design requirements.

Additional Suggested Reading, Reports and Assessments

RBF Consulting and Stillwater Sciences. 2009. Santa Paula Creek Watershed Assessment and Steelhead Restoration Plan. Prepared for California Fish and Game, Santa Paula Creek Fish Ladder Joint Powers Authority.

Stillwater Sciences. 2011. Geomorphic assessment of the Santa Clara River watershed: synthesis of the lower and upper watershed studies, Ventura and Los Angeles counties, California. Prepared by Stillwater Sciences, Berkeley, California for Ventura County Watershed Protection District, Los Angeles County Department of Public Works, and the U.S. Army Corps of Engineers–L.A. District.

Minimum Qualifications for Respondents

1) The respondent shall be fully capable, qualified, insured, and licensed as required to provide these services.

2) List all offices used by the respondent. List the location of the office from which the primary work on this project would be performed.

3) Individuals performing professional engineering services in the State of California must be licensed by the State of California Board of Professional Engineers.

4) Respondent must provide a list of between one - three (3) projects completed by the firm that demonstrate the respondent's competence to perform work similar to that which is likely to be required on this project.

5) Respondent shall name a project manager for these services who will coordinate all activities with CalTrout grant manager, CDFW and CDFW's design engineer.

Work Plan, Personnel and Work Schedule Requirements

Each respondent shall develop and include:

A thorough work plan and/or schedule for project completion: The plan must identify each major task, necessary subtask, and/or specific milestones by which progress can be measured and payments made. Please budget for conference calls and required communication at each design deliverable.

Project Personnel: Respondent shall identify name and title of all key personnel used in the performance of these services and if selected, provide a resume and a description of the project assignment or role which that person will be expected to fulfill.

Sub-consultants and/or Subcontractors: Identify each subcontractor necessary to complete the project. Include the subcontractor's name, address, the service provided, and a brief summary of the respondent's work history with the subcontractor.

Facilities and Resources: Explain where/how the services will be provided and what type

equipment is needed to perform the services.

Cost Detail Format and Requirements

Each proposal must contain an estimated budget, broken down into three (3) categories: Personal Services, Operating Expenses and Equipment. The estimated budget must contain all project costs.

Personal Services Costs: All employee costs, including benefits, which are required to complete the proposed project. List each employee classification, their hourly rate and estimated number of hours.

Operating Expenses: Include all materials, contractual services and incidental costs.

Contractual Services: are those necessary for the implementation of the proposal for which the respondent will subcontract. These services are undertaken by a provider external to the respondent's organization.

Provide as much cost detail as possible and practical. Use unit costs when applicable (per lb., per day, cubic yard, linear foot, etc.).

Travel and per diem: Expenses must be consistent with CDFW guidelines for reimbursed travel expenses.

Equipment: CDFW policy does not normally allow for purchase of equipment. However, under certain circumstances and with adequate justification, the CDFW may approve the purchase of equipment. Any equipment approved under this RFP shall remain the property of the State of California. Final disposition of equipment purchased under an agreement shall be at the State's discretion. For grant purposes, equipment is defined as all moveable articles of non-expendable property which has: 1) a normal useful life including extended life due to repairs of four (4) years or more; 2) an identity which does not change with use (i.e., it is not consumed by use or converted by fabrication into some other form of property); 3) a unit cost of $500.00 or more; and 4) used to conduct business in accordance with the grant.

Submission of Proposals

All parties should submit proposal by 5:00 PM (PST) 11/XX/2018 by email or mail a hard paper copy to Russell Marlow at rmarlow@caltrout.org. Mailing address is 21 South California Street Suite 305 Ventura CA 93001. Bids should include contact information as indicated below and cost estimates responsive to Project requirements stated above.

- The name of the solicitation;
- The name, address, and telephone and FAX number of the bidder and email address;
- Names, titles, and telephone and FAX number and email addresses of persons authorized to negotiate on the bidder's behalf with TU-SC in connection with this solicitation;
- Name, title, and signature of person authorized to sign the proposal.
- Information on costs to perform the work
- Any such information as the bidder deems appropriate to evaluate experience and technical qualifications such as a portfolio.

The RFP generators will evaluate all respondent bids with a uniform scoring matrix considering both cost and qualifications, and reserve the right to consult with and to consider information from its own sources, including information from state and federal agencies regarding the bidder's prior performance or the status of outstanding investigations or warrants involving the bidder.

Bidders may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award. Bidders that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Project Review group except for evaluation purposes, please indicate.

Special Contract Award Requirements

Conflict of Interest

The Contractor warrants that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, or that the Contractor has disclosed all such relevant information.

The Contractor agrees that if an actual or potential organizational conflict of interest is discovered after award, the Contractor will make full disclosure in writing to the Principal Investigator. This disclosure shall include a description of actions that the Contractor has taken or proposes to take, after consultation with the Principal Investigator, to avoid, mitigate, or neutralize the actual or potential conflict.

Remedies – The Principal Investigator may terminate this contract for convenience, in whole or in part, if it deems such termination necessary to avoid an organizational conflict of interest. If the Contractor was aware of a potential organizational conflict of interest prior to award or discovered an actual or potential conflict after award and did not disclose or misrepresented relevant information to the Principal Investigator, PSMFC may terminate the contract for default, debar the Contractor from PSMFC contracting, or pursue such other remedies as may be permitted by law or this contract.

The Contractor further agrees to insert provisions that shall conform substantially to the language of this clause, including this paragraph, in any subcontract, personnel agreement, or consultant agreement hereunder.

Indemnification

Indemnification – Contractor shall indemnify and hold harmless Trout Unlimited and CDFW and their officers, agents, employees, boards and commissions, against any and all loss, damages, liability, claims, suits, costs and expense whatsoever, including reasonable attorney's fees, regardless of the merits or outcome of any such claim or suit arising from or in any manner connected to Contractor's negligent performance of services provided or work conducted or performed pursuant to this agreement.

Insurance

Evidence of Insurance Provision. Before the final execution of this contract, Contractor and any Subcontractors shall produce a standard Accord form Certificates of Insurance with Insurance

Carriers acceptable to the PSMFC, evidencing all required insurances. The Certificate shall also comply with the Additional Insured Provision, Subrogation Waiver Provision and forward actual endorsements from the Contractor's insurance carriers evidencing required coverage amendments.

Sufficiency of Insurance. The insurance limits or coverages required by PSMFC are not represented as being sufficient to fully protect the Contractor. Contractor is advised and responsible to determine its own adequate coverage or limits for the Contractor/subcontractor.