



MEMORANDUM

To: Board of Directors
From: Angie Gruys, Program Specialist
RE: Agenda Item 6.2 Recommendation to procure a contractor for the Quarry Road Sediment Reduction Project
Date: 8/4/2022

RCD staff recommends entering a Construction contract with the lowest responsible bidder for the Quarry Road Sediment Reduction Project. Bids are due August 31, 2022, at 10:00 AM. The engineer's cost estimate is \$108,258 to upgrade a failing stream crossing culvert and two ditch relief culverts with a new larger 67-foot, 42" diameter smooth-walled HDPE pipe placed at a similar alignment and grade. The purpose of the project is to reduce sediment in surface waters of the San Lorenzo River Watershed.

The contract will be paid with funding from the Regional Water Management Foundation (Award P1R1IMP_LPS_4600013804, state funding), the State Water Resource Control Board (Award D1913304 state and federal funding) and private funds from the Landowner (Forest Lakes Mutual Water Company). This project was reviewed by the Technical Advisory Committee.

The project designs were completed by Waterways Consulting with funding from the landowners; project permitting is through the Partners in Restoration program with funding from RWMF and SWRCB. A CDFW Streambed Alteration Agreement has been submitted and is awaiting approval.

The proposed project will remove and upgrade three existing culverts. One is a stream crossing culvert that is an undersized 59.2 foot long, 24" diameter corrugated metal pipe culvert that is severely rusted and undercut at the downstream end by approximately 6 ft. A portion of the culvert has separated and broken off with the original length estimated to be between 66-70 feet. The other two are 8' and 10' ditch relief culvert (DRC's). The existing road fill is unstable and contains logs and debris, as determined by geotechnical assessment and visual inspection of the downstream side of project area, where erosion has exposed the fill material.

Proposed project actions include removal of the existing culverts and excavation of unstable fill. The stream crossing culvert will be replaced with a new larger 67-foot, 42" diameter smooth-walled HDPE pipe placed at a similar alignment and grade. The two DRC's will be removed and redirected to the new stream crossing culvert through an armored spillway. The road fill will be removed under supervision of the geotechnical engineer and replaced compacted engineered fill inclined at a maximum slope of 1.5H:1v at 12 feet high. The downstream face of the embankment will be lined with Class II RSP (1.5') rock facing and backfilled with topsoil and native forest duff salvaged on site to create a buttress. A rock energy dissipater will be installed at the outlet to reduce bank erosion and conform the pipe to the downstream channel. It will be comprised of 50/50 blend of Caltrans Universal gravel and Caltrans Class 2 permeable will be placed at a 0.5' minimum overlain with Class VIII RSP (3' in depth). A rock inlet (comprised of Class IV RSP) and two (2) 6 feet wide by 8 feet long rock-lined swales (comprised of 4-8-inch diameter angular stone placed at 8-inch depth minimum) will also be constructed up stream to direct surface flow into the culvert. The swales are 16-inch width minimum, 8-inch depth with 1.5:1 side slopes. A critical dip will be installed at the margin of the historic fill, discharging onto stable ground at a redwood grove to safely convey flow if the culvert should become plugged and to route road runoff that doesn't



enter the upstream culvert. A 40' asphalt concrete dike will be placed southern approach to the upstream culvert to protect the cutslope. Approximately 100 linear feet (1575 sq ft) of the road will be repaved to improve drainage controls and prevent ongoing slope erosion.

This is a state, federal and private funded project. According to the District's 1080 Procurement Policy, a construction project with an estimated cost of \$108,258 fall under the 1080.7.1.2 Informal Bid Process. Therefore, bid solicitation will follow the 1080.7.2 Informal Bid Process; bids will be emailed to a minimum of three contractors and follow Good Faith Efforts to identify Disadvantage Business Entities and will be posted on the District website. Bid opening is scheduled for August 5, 2022, with a bid walk on August 8, 2022. Bids are due no later than August 31 at 10:00AM and there will be a public opening at that time.

RCD staff recommends this project because:

- It has been reviewed technical advisory committee and will reduce both episodic and chronic sediment loading into Gold Gulch, a tributary for the San Lorenzo River Watershed.
- The San Lorenzo River Watershed has a sediment TMDL that specially identified rural roads and failing culverts as sources of controllable sediment that need to be addressed.

It is therefore recommended that the Board approve entering a Construction contract with the lowest responsible bidder for the Quarry Road Culvert Replacement Project.