

Flume 45 Abutment Section Replacement Construction Contract and Related Services

July 25, 2022

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Previous Board Actions

- January 11, 2021 – Board awarded a contract to MGE Engineering in the not-to-exceed amount of \$299,841 for design of the Flume 45 abutment section, and authorize additional funding of \$145,000 for capitalized labor and \$60,000 for environmental studies for a total funding request of \$504,841 for the Flume 45 Abutment Replacement Project, Project No. 17025.01
- November 8, 2021 – Board adopted the 2022-2026 CIP, which included this project, subject to funding availability

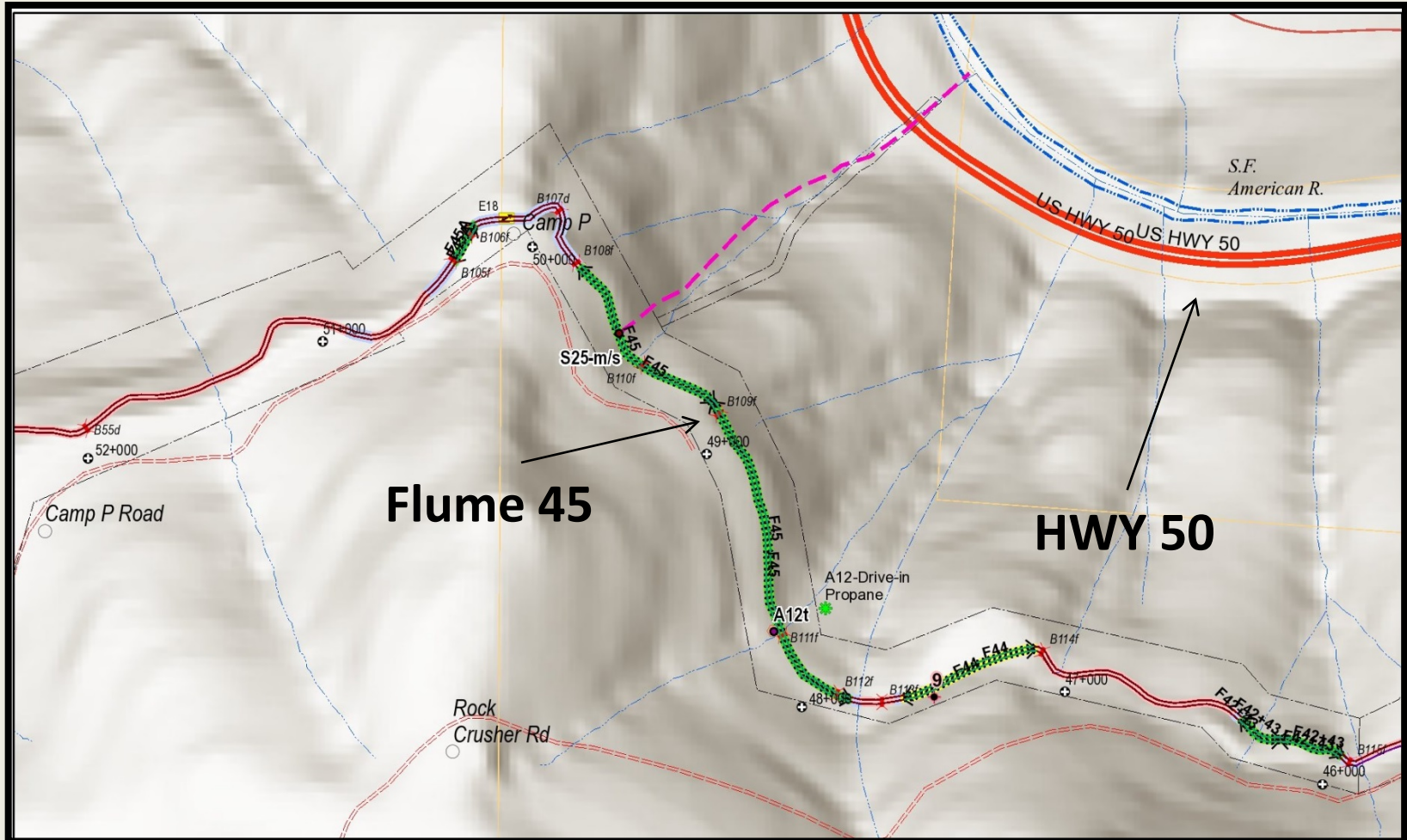
Summary of Issues

- Wooden flume is beyond useful life
- Approve a contract for construction to Sierra Mountain Construction Inc.
- Approve a contract for construction engineering services to MGE Engineering Inc.

Background

- Flume 45 is a 1,900 foot long flume
 - Divided into 3 sections
 - Section 1 approximately 900 feet long replaced in 2013
 - Section 3 approximately 940 feet long replaced in 1993. Coming to the Board next month to start design for replacement
- Most of the flume rests on a historic rock wall constructed in the 1870's
- The abutment section is 100 feet long elevated flume that is tied into the historic rock wall and last replaced in 1948
- Historic landslide compromised the structural integrity of the rock wall abutments
- Stability measures implemented in 2014 on the abutment section

Project Site



Flume 45 Abutment Issues



Flume 45 Abutment Issues



Flume 45 Abutment Issues



Flume 45 Abutment Issues



Flume 45 Abutment Issues



Scope of Work

- Repair spur road for construction access
- Remove 75 feet of historic wall and stabilize up to 15 feet
- Excavate unsuitable material in landslide area and backfill with engineered soil
- Construct 200 foot long, 25 foot high, MSE wall
- Construct 100+ feet of U-shaped canal and 40 feet of box culvert

Environmental Review

- The District must comply with California Environmental Quality Act (CEQA)
- Staff has determined project is categorically exempt from CEQA
 - Maintenance and repair of existing facility
 - Replacement or reconstruction of existing structures
- If the Board approves the proposed project, staff will file a Notice of Exemption (NOE) with the El Dorado County Recorder-Clerk's office and post the NOE on the District's website

Construction Bids

Construction Firm	Bid
Sierra Mountain Construction Inc.	\$2,280,830
Syblon Reid Constructors	\$2,335,430
Bosco Construction	\$3,702,254

Engineers Estimate \$2.4 million

Construction Engineering Services (CES)

- CES part of Quality Control Inspection Program (QCIP)
 - Respond to RFI, Submittals
 - Field Clarifications
 - Change order review
- QCIP required by FERC
 - Specialty Inspection of concrete, rebar, MSE wall, compaction testing
- Needed FERC approval before bidding
- Negotiated single source contract \$317,773

Cost Breakdown

Flume 45 Abutment Funding Requirements

	Amount
Construction – SMCI	\$ 2,280,830
Construction engineering services and QCIP inspection – MGE Inc.	\$ 317,773
Capitalized labor – Project management and engineering, construction management, and environmental staff support	\$ 225,000
Contingency (10%)	\$ 282,360
TOTAL	\$ 3,105,963

CIP – \$1.9 million – escalation due to steel, concrete, and labor

Board Options

- **Option 1:** Award a contract to Sierra Mountain Construction Inc. in the not-to-exceed amount of \$2,280,830 for construction of the Flume 45 Abutment Replacement Project and authorize additional funding of \$225,000 for capitalized labor, \$317,773 for construction engineering services, and \$282,360 in contingency for a total funding request of \$3,105,963 for the Flume 45 Abutment Replacement Project, Project No.17025.01.
- **Option 2:** Take other action as directed by the Board.
- **Option 3:** Take no action.

Recommendation

- **Option 1**

**CONSIDER AWARDING A CONTRACT TO
OWEN EQUIPMENT IN THE NOT-TO-
EXCEED AMOUNT OF \$1,139,726 FOR
THE PURCHASE OF TWO 2100I
COMBINATION SEWER CLEANER VACUUM
TRUCKS**

July 25, 2022



Summary

- 2 vacuum trucks are at end of their lifecycle. Increased down time has adversely impacted maintenance schedules and increased costs due to high rental rates.
- Current trucks are out-dated and replacement parts are difficult to source, extending truck down times.



Background

- Collections staff maintain approximately 647 miles of pipeline and 60 lift stations.
- Over 450,000 feet of pipeline must be cleaned annually to meet Sanitary Sewer Management Plan (SSMP) goal of 6 year cycle.
- Vacuum trucks are the primary tool used for lift station cleaning and emergency response.
- District staff depend on these trucks every day to keep up with workload and emergency response.
- District started researching alternatives in 2021.
- Based on staff research and collaboration with other Districts in our area District staff recommends Vactor trucks going forward.
- Owen equipment has demonstrated the ability to provide necessary parts and service and the Vactor trucks recently purchased for water construction have exceeded expectations in the field.

Efficiency

- Combination sewer cleaner/vacuum trucks are essential for the Operation and Maintenance (O&M) of the sanitary sewer collection system.
- Trucks are used on a daily basis for routine sewer line cleaning, emergency response and lift station maintenance.
- When a truck goes down so does an entire crew putting maintenance schedules behind.
- Average cost for a rental is \$13,000 a month.
- New trucks are outfitted with updated technology to help crews accomplish their day to day tasks safely and efficiently.
- Single engine design compared to the current two engine units will improve vehicle service and fuel costs.
- New trucks would be CARB compliant as no viable alternatives are available.

Summary of Pricing

Vendor	Quantity	Vehicle type	Price/ea
Owen Equipment	1	2100i vactor 12 yard combination sewer truck	\$580,722.28
Owen Equipment	1	2100i vactor 5 yard combination sewer truck	\$559,003.00
		Total price for both	\$1,139,725.28

* The trucks would be funded by the 2022 vehicle replacement CIP. These vehicles were included later in the 5-year CIP and would be accelerated. Delays in procurement of other equipment allows for the purchase of these trucks without an increase to the overall vehicle replacement CIP.

**The District is saving approximately \$51,310.00 by selecting Vactor units for our fleet compared to Vac-Con.

Procurement of vehicles using Sourcewell

- Sourcewell achieves the best pricing by combining the buying power of more than 50,000 government, education, and nonprofit organizations. The District utilizes a network of local vendors which have been awarded these contracts to procure a variety of items. While most items have a large discount through Sourcewell, vehicles tend to have a particularly large discount which is very beneficial to the District.
- Procurement through Sourcewell is consistent with AR 3061.07 Piggyback Procurements.

Board Options

- Option 1: Award a contract to Owen Equipment in the not-to-exceed amount of \$1,139,726 for the purchase of two 2100i combination sewer cleaner vacuum trucks.
- Option 2: Take other action as directed by the Board.
- Option 3: Take no action.

Recommendation

- Option 1

Questions?