

Orange County Sanitation District



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Agenda Report Details (With Text)

File #: 2021-1804 **Version:** 1 **Name:**
Type: Non-Consent **Status:** Passed
File created: 8/11/2021 **In control:** STEERING COMMITTEE
On agenda: 8/25/2021 **Final action:** 8/25/2021
Title: BAY BRIDGE PUMP STATION FORCE MAIN ISOLATION VALVE REPLACEMENT, PROJECT NO. FRC-0013
Sponsors: Kathy Millea
Indexes:
Code sections:
Attachments: 1. Agenda Report, 2. FRC-0013 Service Contract Exhibit A, 3. Presentation - Bay Bridge Valve Replacement

Date	Ver.	Action By	Action	Result
8/25/2021	1	STEERING COMMITTEE		

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

BAY BRIDGE PUMP STATION FORCE MAIN ISOLATION VALVE REPLACEMENT, PROJECT NO. FRC-0013

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Ratify Approval of an Emergency Repair Service Contract to Charles King Company for Bay Bridge Pump Station Force Main Isolation Valve Replacement, Project No. FRC-0013, for an amount not to exceed \$289,585; and
- B. Approve a contingency of \$144,793 (50%).

BACKGROUND

The Orange County Sanitation District (OC San) owns and operates pump stations and a force main network along Pacific Coast Highway in Newport Beach. The Bay Bridge Pump Station, Rocky Point Pump Station, and the Lido Pump Station all pump into, and pressurize, this two-pipe force main system. Each pump station has an isolation valve to each force main pipe to allow separation of the internal pump station systems from the other pump stations. This is necessary to isolate suction and discharge headers and common flow elements to be maintained or repaired. These pump station force main isolation valves are also necessary to install temporary bypass pumping systems at the individual pump stations and to stop flow to either force main pipe if it were compromised in some way.

The Bay Bridge Pump Station was originally constructed in 1965 and is near the end of its useful life. Bay Bridge Pump Station Replacement, Project No. 5-67, is in design and is scheduled to replace the pump station by 2027.

The pump isolation valves at the Bay Bridge Pump Station are in urgent need of replacement. Replacement cannot wait until the new pump station is completed. In November 2020, the Board awarded a contract for Bay Bridge Pump Station Valve Replacement, Project No. FRC-0002, to replace the valves within the pump station. The work includes bypass pumping to take the pump station out of service which cannot proceed until working pump station force main isolation valves are installed.

RELEVANT STANDARDS

- Achieve less than 2.1 sewer spills per 100 miles
- Comply with OC San Policy (Ordinance No. OC SAN-56, Article 5 - Public Works Projects, Section 5.03A - Exceptions, Emergencies and Calamities)

PROBLEM

In the course of executing the Bay Bridge Pump Station Valve Replacement, Project No. FRC-0002, staff has become aware that the two pump station force main isolation valves at the Bay Bridge Pump Station cannot provide positive isolation between the pump station and the force mains. This means that OC San is unable to maintain or repair important equipment in the pump station and will also not be able to isolate flow to either force main in the event of a leak or damage to the pipe system.

Replacement of the force main isolation valves is complex and carries significant risk.

PROPOSED SOLUTION

Given the criticality of the pump station isolation valves, the failure of these valves poses a clear and imminent danger to essential public services, in this case, wastewater conveyance. On July 28, 2021, the General Manager declared an emergency to replace the force main isolation valves so that the force mains can be isolated and to allow completion of Bay Bridge Pump Station Valve Replacement, Project No. FRC-0002, before the coming wet weather season.

Staff recommended the approval of an Emergency Repair Service Contract to replace the pump station force main isolation valves. This work will involve pump station shutdowns and bypass pumping that involves a significant risk of a sewage spill without proper planning, contingency measures, and a contractor with a proven ability to perform such complex, time-sensitive work.

Following the July 28, 2021 emergency declaration, the General Manager issued a purchase order to Charles King Company (Charles King) to perform initial work under the emergency provisions in OC San's Purchasing Ordinance No. OC SAN-56. On August 5, 2021, the General Manager informed the Board Chair that the emergency repair by Charles King would exceed \$100,000. The Chair concurred with proceeding with the emergency repairs. Since the emergency work exceeds \$100,000, ratification of the Service Contract by the Board of Directors is required in accordance with OC San's Purchasing Ordinance.

The proposed upper limit is based on the initial work plan prepared by Charles King. As plans are prepared in more detail, the cost could change significantly. For this reason, staff is requesting an unusually high contingency to quickly address any needs that arise.

TIMING CONCERNS

Any delay in completing the pump station force main valve replacements will likely prevent the individual pump isolation valves from being replaced until after the wet weather season. Given the poor condition of the interior pump station valves needed to isolate and service pumps, there is a significant risk that the pump station might not be able to handle peak wet weather flows.

RAMIFICATIONS OF NOT TAKING ACTION

Without this emergency repair, the contract for Bay Bridge Pump Station Valve Replacement, Project No. FRC-0002, would need to be cancelled, and the work combined with the pump station force main valve replacement into a new public works contract. With procurement and award timeframes, not being able to do the work during the wet season, and the City of Newport Beach not allowing lane closures during the busy summer season, the work would likely need to be delayed until September 2022.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San contacted two firms with successful experience performing urgent, high-risk collection system projects: Jamison Engineering and Charles King. Jamison Engineering was not able to start work until September, so staff engaged Charles King to start work. The initial authorization included preparation of a detailed work plan and excavation of the piping near the force main isolation valves. They were also asked to find replacement valves that could be delivered in a short period of time.

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations sections 15301. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San's Board of Directors approval of the Emergency Repair Service Contract.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This recommendation would be funded under the Repairs and Maintenance line item for the Operations and Maintenance Department (Budget Update Fiscal Year 2021-2022, Page 45), and the available funding is sufficient for this action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda

package:

- Service Contract
- Presentation

RD:dm:gc