



Santa Clara Valley Water District

File No.: 20-0493

Agenda Date: 8/11/2020
Item No.: 3.1.

BOARD AGENDA MEMORANDUM

SUBJECT:

Adopt Plans and Specifications and Authorize Advertisement for Bids for the Central and Parallel East Pipelines Inspection and Rehabilitation Project, Project No. 95084002, Contract No. C0661 (San Jose and Unincorporated Santa Clara County), (Districts 1, 2, 4, 6, and 7).

RECOMMENDATION:

- A. Find that the Central and Parallel East Pipelines Inspection and Rehabilitation Project is substantially complex and requires a construction contract retention of 10 percent;
- B. Adopt Plans and Specifications and Authorize Advertisement for Bids for Construction of the Central and Parallel East Pipelines Inspection and Rehabilitation Project per the Notice to Bidders; and
- C. Authorize the Designated Engineer to issue addenda, as necessary, during the bidding process.

SUMMARY:

The objective of the Central and Parallel East Pipelines Inspection and Rehabilitation Project (Project) is to increase the reliability and useful life of these pipelines.

The Project scope of work includes the dewatering and inspection of Central Pipeline, repair and rehabilitation of the appurtenances, replacement of a line valve, installation of an Acoustic Fiber Optic (AFO) monitoring system on Central Pipeline which provides Valley Water with real-time monitoring, and installation of other miscellaneous pipeline appurtenances.

Staff has completed the final construction documents and is recommending the Board approve the plans and specifications and authorize the advertisement for bids for construction of the Project per the Notice to Bidders (Attachment 1).

Project Background

The Central and Parallel East Pipelines are included in the District's Pipeline Maintenance Program (PMP) and are an identified capital effort under the 10-Year Pipeline Inspection and Rehabilitation Program. The PMP defines the activities associated with maintenance and repair of water supply conveyance systems throughout the District's jurisdiction. The PMP serves as a comprehensive plan

that defines how routine and preventative maintenance activities are to be carried out. The primary objectives of the PMP are to maintain the District's water conveyance systems to their specifications and design, coordinate the various aspects of maintenance to achieve this goal, reduce environmental impacts associated with maintenance, and assist in obtaining multi-year permits for these activities.

The purpose of the 10-Year Pipeline Inspection and Rehabilitation Project is to maintain the integrity of the approximately 140 miles of large diameter raw and treated water transmission pipelines, extend their useful life, and address infrastructure reliability concerns. The Project is the fourth project to be undertaken, following Almaden Valley Pipeline, Pacheco Conduit, and Cross Valley and Calero Pipelines.

Central Pipeline

Central Pipeline consists of approximately 12.7 linear miles of 66-inch prestressed concrete cylinder pipe (PCCP). It conveys raw water between Penitencia Treatment Plant and Rinconada Treatment Plant. Central Pipeline was constructed in eight phases and was completed in 1966. It begins at the end of Penitencia Force Main which connects to the Penitencia Treatment Plant in northeast San Jose, runs southwest through the urban streets of San Jose, Campbell, and Los Gatos, and ends at the Vasona Pump Station in Los Gatos.

In May and June of 2018, staff conducted a condition assessment of the Central Pipeline to evaluate and assess the overall condition of the pipelines and their appurtenances. The results indicate that replacement and renewal on pipeline appurtenances must be performed at 63 sites which include air valves, guard valves, blowoff valves, two flowmeters, three energy dissipation valves, one 66-inch in-line isolation valve, ladders, and manholes.

An external third party, pursuant to a separate contract, will install an Acoustic Fiber Optic (AFO) monitoring system to allow for live monitoring of the structural condition of the pipeline.

Parallel East Pipeline

Parallel East Pipeline (PEP) consists of 2.3 miles of 54-inch welded steel pipe. It begins as a branch off the East Pipeline (EPL) on White Road and Ocala Road, runs south along White Road and ends by connecting back to the EPL near the intersection of White Road and Aborn Road in East San Jose.

The Parallel East Pipeline Rehabilitation Project was originally scheduled to be completed in 2021. In 2018, the project was split into two phases. The first phase was completed in the Spring of 2019 and included the refurbishment of the reducing spools, guard valves, air release valves (ARV), and removal of all failing 2-inch threaded branch connections in 14 underground vaults. This Phase II will include modifying air release valve vent piping from within underground vaults to above ground enclosures to comply with CA Waterworks Standard 64576(a) which requires vent openings to be above grade and above the calculated 100-year flood water level. This work requires traffic control and trenching along White Road and Ocala Road.

As part of Phase I, Valley Water staff requested a temporary waiver of compliance with the above CA Waterworks Standard from the State Water Resources Control Board - Division of Drinking Water (DDW). One of the conditions of granting the waiver is to install the air vents by the end of 2020 which has been defined as a milestone within the construction contract.

Construction Contract Retention

Public Contract Code (PCC) Section 7201 limits retention amounts for public works construction contracts to five percent (5%) of the total contract price. PCC section 7201(b)(4) provides that retention proceeds on a project may exceed 5% where the Board makes a finding that the proposed project is “substantially complex” and, therefore, requires a retention amount greater than 5%.

To comply with the PCC in regard to increasing the retention to 10%, staff recommends the Board find that the Project is substantially complex based on the precision required to perform this critical work within a constrained shutdown schedule to minimize unplanned disruption in the delivery of raw water to Santa Clara County.

Relevant Prior Board Actions:

On November 13, 2007, the Board certified the Pipeline Maintenance Program Environmental Impact Report (PMP EIR) and adopted the Mitigation Monitoring Plan.

On March 9, 2010, the Board adopted Resolution 10-24 specifying intent to consider undertaking the Project and setting the time and date for a public hearing on the Engineer’s Report for the subject Project.

On April 13, 2010, the Board held a public hearing and adopted Resolution 10-29 approving the PMP Engineer’s Report and approving the PMP.

On January 8, 2019, the Board approved a sole source purchase of equipment and services from Pure Technologies U.S., Inc. to provide electromagnetic inspection, acoustic fiber optic (AFO) monitoring system, and AFO system services for the 10-Year Pipeline Inspection and Rehabilitation Program. The construction contract scope provides for the contractor to support and provide physical access to Pure Technologies U.S. to install the monitoring system.

Permits

Staff has received a Lake-Stream Alteration Agreement from the California Department of Fish and Wildlife. Staff has also coordinated with the cities of San Jose and Campbell and the County of Santa Clara, and received conditional encroachment permits that will be finalized after contract award by the construction contractor and those public entities when its submittals for the encroachment permits are approved.

Next Steps

If the Board approves the recommendations, staff will proceed to advertise the Project for construction bids. Staff anticipates recommending the Board award a construction contract on October 13, 2020.

FINANCIAL IMPACT:

The total Project cost is estimated at \$14.3 million and is included in the FY 21-25 CIP as part of the 10-Year Pipeline Inspection and Rehabilitation Project (Project #: 95084002) under the Water Utility Enterprise Fund.

The estimated construction contract cost for the Project is between \$8 million and \$11 million. There are sufficient funds in the 10-Year Pipeline Inspection and Rehabilitation Project's FY21 budget to encumber the anticipated construction contract amount.

CEQA:

On November 13, 2007, the Board certified the Pipeline Maintenance Program Environmental Impact Report (PMP EIR) [Resolution 07-71]. The PMP provides for the maintenance of the Valley Water's 14 raw water pipelines and 9 treated water pipelines.

In February 2019, District environmental staff reviewed the Project and concluded in a CEQA Internal Decision Memorandum that the PMP EIR can be relied on by Valley Water for this Project. Potential impacts related to all components of the Project have been evaluated and mitigation measures are specified in the PMP EIR. During Project implementation, the District and the contractor will comply with all BMPs and mitigation measures per the PMP EIR, California Department of Fish and Wildlife Lake-Stream Alteration Agreement, and Valley Habitat Plan's conditions.

ATTACHMENTS:

- Attachment 1: Notice to Bidders
- Attachment 2: Project Delivery Process Chart
- Attachment 3: Site Map
- Attachment 4: Plans
- Attachment 5: Specifications

UNCLASSIFIED MANAGER:

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