



Santa Clara Valley Water District

File No.: 18-0333

Agenda Date: 5/8/2018

Item No.: *5.4.

BOARD AGENDA MEMORANDUM

SUBJECT:

Update on the Condition of the Almaden Valley Pipeline Inspection and Rehabilitation Project; Budget Adjustment of \$5,000,000 from the Rinconada Water Treatment Plant Residuals Management Project (Project No. 93294051) to the 10-Year Pipeline Inspection and Rehabilitation Project (Project No. 95084002); and Update on the Termination of the Almaden Valley Pipeline Emergency by the Chief Executive Officer (San Jose, Los Gatos, Unincorporated Santa Clara County) (Districts 4 and 7).

RECOMMENDATION:

- A. Receive an update on the Almaden Valley Pipeline Inspection and Rehabilitation Project;
- B. Approve a budget adjustment transferring \$5,000,000 to the 10-Yr Pipeline Inspection and Rehabilitation Project No. 95084002, from the Rinconada Water Treatment Plant Residuals Management Project, Project No. 93294051; and
- C. Receive an update on the termination of the emergency action declared by the Chief Executive Officer (CEO) on December 5, 2017, pursuant to California Public Contract Code §22050, to repair the Almaden Valley Pipeline (San Jose, Los Gatos, Unincorporated Santa Clara County) (Districts 4 and 7).

SUMMARY:

According to Public Contract Code §22050, in order for the emergency action to remain in place, the Board must determine, by four-fifths vote at every regularly scheduled Board meeting until the emergency action is terminated, that there is a need to continue the emergency action. The CEO has determined that there is no need to continue the emergency and has terminated the emergency; there is no longer a need for the Board to continue the emergency action

Background

On December 5, 2017, the CEO declared that the condition of the Almaden Valley Pipeline (AVP) constituted an emergency condition pursuant to California Public Contract Code §22050, and that District staff may repair such pipeline, take any directly related and immediate action required by that emergency, and procure the necessary equipment, services, and supplies for those purposes, without giving notice for bids to let contracts. This declaration was continued by the Board at all regularly scheduled board meetings held since the emergency was declared.

The AVP consists of approximately 12 miles of 72-inch to 78-inch diameter Prestressed Concrete

Cylinder Pipe (PCCP) and welded steel pipe (WSP). The pipeline was constructed in two major segments: AVP Unit 1 was constructed in the 1960's, and AVP Unit 2 was constructed in the 1980's. The AVP is used to supply raw water to the District's water treatment plants and groundwater recharge facilities.

As part of the 10-Year Pipeline Inspection and Rehabilitation Program, AVP inspection and rehabilitation work was initiated on October 27, 2017. Because of the AVP shutdown, the Santa Teresa Water Treatment Plant (STWTP) was also taken offline. Following three weeks of dewatering, inspection activities were performed on November 21-22, 2017. Investigation results for Unit 2 indicated a large number of distressed PCCP sections between the Santa Teresa Force Main and Calero Reservoir. The District could not return the AVP to safe and reliable service until the significantly distressed pipe sections were repaired, and an analysis was conducted to understand why such degradation of the pipe had occurred. Failure to return the pipeline to safe and reliable service would have posed a significant risk to the District's ability to provide sufficient water to meet minimum water supply demands as the District's contractual obligations for water delivery increase from winter to spring.

District staff and contractor personnel performed an emergency inspection, detailed forensic analysis, formulated a repair strategy, and the District awarded a public works contract to the Structural Group, Inc. to perform the repair of the pipeline. Approximately 80 individual pipe sections were repaired applying reinforced carbon fiber to the inside of the distressed pipe sections. In addition, an acoustic fiber optic (AFO) cable was placed inside the pipeline to detect and locate future wire breaks that occur once the pipeline is put back into service.

All emergency repairs to the pipeline were completed by March 16 and the pipeline and water treatment plant were returned to service. The remaining work of the AVP Rehabilitation Project occurring outside of the pipeline and inside of vaults will be completed this summer. The pipeline has been operated to minimize pressure fluctuations while staff monitored its condition including any additional reinforcing wire breaks. Since this portion of pipeline was returned to service, approximately 150 additional wire breaks have been detected by the AFO technology, but this was anticipated and does not threaten the integrity of the pipeline. Based on the performance of the repairs and the results of the ongoing monitoring, staff believes that no additional repairs are needed in the immediate future. Based on these findings, the CEO has terminated the emergency action.

FINANCIAL IMPACT:

The total cost of the emergency repairs of the Almaden Valley Pipeline is estimated to be approximately \$12 million. All expenditures supporting this effort are being charged to the 10 Year Pipeline Inspection and Rehabilitation Program (95084002) which also funds annual planned pipeline inspection and rehabilitation work including the AVP Rehabilitation Project and the upcoming Cross Valley Pipeline Rehabilitation Project.

The Board approved a budget adjustment on January 23, 2018 transferring \$4,523,942 into the Program to partially fund this unplanned emergency work. Based on the remaining project budget

and an estimate of the remaining work to be completed this fiscal year, staff is recommending an additional \$5 million to cover the remaining added cost of the unplanned emergency repairs to the AVP.

Funds would be transferred to the 10-Year Pipeline Inspection and Rehabilitation Project, Project No. 95084002, from the Rinconada Water Treatment Plant Residuals Management Project, Project No. 93294051. The remediation work for the Residuals Management Project has not progressed as anticipated in FY2018, and there are adequate funds to enable this recommended fund transfer.

CEQA:

Impacts associated with the repair and maintenance activities of the Almaden Valley Pipeline were evaluated by the Pipeline Maintenance Program and the Programmatic Environmental Impact Report (PEIR), certified and approved by the Board on November 13, 2007. The California Department of Fish and Wildlife and the Regional Water Quality Control Board were properly notified to address the issued permits for the Project. The permits have been modified to address work associated with the repair of the emergency conditions. All work will be performed deploying the Valley Habitat Plan conditions and avoidance and minimization measures to prevent impacts to sensitive habitat in the Project vicinity.

ATTACHMENTS:

Attachment 1: Emergency Declaration

Attachment 2: PowerPoint

*Supplemental Board Agenda Memo

*Supplemental Attachment 1: Memorandum

UNCLASSIFIED MANAGER:

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