



Santa Clara Valley Water District

File No.: 20-1189

Agenda Date: 12/28/2020

Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM

Water Storage Exploratory Committee

SUBJECT:

Pacheco Reservoir Expansion Project Update.

RECOMMENDATION:

Receive and discuss information regarding status of the Pacheco Reservoir Expansion Project. This is an information-only item and no action is required.

SUMMARY:

The Pacheco Reservoir Expansion Project (PREP) recently provided an updated project plan for the Capital Improvement Program (CIP). This update was prompted by changes in project costs and schedule identified in a Feasibility Level Design Assessment performed for the San Luis Reservoir Low Point Improvement Project (SLLPIP) effort. The prior project plan costs and schedule were based upon the information in the 2017 Water Storage Investment Program (WISIP) application estimates and actual consultant agreement costs for the Project Management, Planning, Design, Environmental Documentation and Permitting consultant services.

The Feasibility Level Design Assessment included incorporation of geotechnical data, evaluation of construction sequencing, and estimated production rates for various elements of the proposed project. Major changes to the spillway and inlet/outlet works configuration, as well as updated design elements related to the earthfill dam, have contributed to revising the construction sequencing and extending the schedule estimate. The construction schedule for the earthfill dam has been estimated to be over seven years while the schedule in the 2017 funding application estimated five years.

The Feasibility Level Cost Estimate presented significant increases in construction costs primarily due to the following factors.

1. Findings of the initial geotechnical field investigations have resulted in:
 - a. Tripling the amount of excavation needed to reach the dam foundation and resulting cost increases for both foundation excavation and dam fill materials,
 - b. Substantial excavation and landslide stabilization costs for the spillway,
 - c. A more complex inlet/outlet works configuration including a tunnel and shaft with adits.
2. Increased unit prices and quantities for the following items:
 - a. Dam filter/drain material unit price and quantity
 - b. Embankment/shell material unit price and quantity
 - c. Conveyance pipe (steel) unit price
3. Other drivers:

- a. Highway 152 access improvements
- b. Onsite access roads
- c. Mitigation land acquisition costs
- 4. Contingencies and schedule:
 - a. Increase in design contingency from 10% to 25%
 - b. Construction schedule extended from five to eight years

The cost increases result in a construction cost increase of about \$1 Billion. With inflation considered, the CIP cost for the project increased from \$1.3 Billion to \$2.5 Billion. The PREP team has begun developing variations to the project that could result in significant construction cost savings and reduction of the construction schedule. The variations include analysis of an alternate dam site upstream and assessing feasibility, cost, and construction of a hardfill dam structure in place of the proposed earthfill.

ATTACHMENTS:

Attachment 1: PowerPoint Presentation

UNCLASSIFIED MANAGER:

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