



Santa Clara Valley Water District

File No.: 20-0817

Agenda Date: 9/29/2020

Item No.: 4.2.

COMMITTEE AGENDA MEMORANDUM

Water Conservation and Demand Management

SUBJECT:

Water Supply Master Plan 2040 Monitoring and Assessment Program.

RECOMMENDATION:

This is an information only item and no action is required.

SUMMARY:

The Water Supply Master Plan 2040 (Master Plan) is Santa Clara Valley Water District's (Valley Water) strategy for providing a reliable and sustainable water supply in a cost-effective manner consistent with Board Policy E-2.1 "There is a reliable, clean water supply for current and future generations". It informs investment decisions by describing the type and level of water supply investments Valley Water is planning to make through 2040, the anticipated schedule, the associated costs and benefits, and how the plan will be monitored and adjusted through the Master Plan's Monitoring and Assessment Program (MAP).

The Master Plan, which was adopted by the Board of Directors (Board) in November 2019, defines a new level of service goal, provides an investment strategy, and recommends water supply projects that achieve the investment strategy and level of service goal. However, new data, modeling, and project information is available each year and needs to be integrated into the Master Planning process to determine if the recommended projects will still achieve the level of service goal. Therefore, the MAP integrates new information and tracks changes forecasted for existing water supplies (e.g. imported contract supplies, local water supplies and infrastructure, etc.), potential future water supply projects, and forecasted demands. MAP helps ensure Valley Water is effectively and efficiently implementing the Master Plan and includes a report to the Board at least annually. This memorandum provides a MAP update and next steps in developing the annual report which will be presented to the Board in fall 2020.

Water Supply Master Plan 2040 Strategy

Valley Water's level of service goal is to "develop water supplies designed to meet at least 100 percent of average annual water demand identified in Valley Water's Water Supply Master Plan during non-drought years and at least 80 percent of average annual water demand in drought years." To ensure Valley Water achieves its level of service goal, the Master Plan recommends the following strategy:

- 1) Secure existing supplies and infrastructure

- 2) Expand water conservation and reuse
- 3) Optimize the use of existing supplies and infrastructure

Valley Water staff partner with internal and external stakeholders to ensure staff maintain an accurate understanding of the existing system and water demands, participate in the development of new water supply projects, and fully evaluate whether investments are needed to meet Valley Water's level of service goal, and if so, which projects best achieve the Master Plan investment strategy summarized above.

MAP Evaluation

Existing Water Supply System

Valley Water staff updates and evaluates new information about the existing water supply system. This updated and new information is input into Valley Water's Water Evaluation and Planning (WEAP) model to evaluate how Valley Water will meet its level of service goal. Review of the existing water supply system primarily included:

- 1) Storage space in Valley Water's reservoirs using bathymetry information collected by the Raw Water Operations and Maintenance Unit
- 2) South Bay Aqueduct conveyance capacity using information from the Department of Water Resources and the South Bay Aqueduct Capacity Analysis being completed by the South Bay Contractors
- 3) Imported water contract language
- 4) Anderson seismic retrofit construction timeline and operations

Potential Future Water Supply Projects

Valley Water is actively participating in local, regional, and state water supply projects to help define project objectives and determine whether Valley Water should invest in those projects to meet the level of service goal. All projects in Appendix H of the Water Supply Master Plan (Attachment 1) are being reviewed and re-evaluated considering changes to each project's design and performance, operations of the existing system, and forecasted demands.

Forecasted Water Demands

The demand forecasts in the Master Plan were developed in 2016 with the best available data and assumed a rebound to pre-drought water use. Since 2016, drought rebound has been significantly less than in forecasts, there is more water-use data available, and new housing and economic development forecasts (e.g. Plan Bay Area) have been published. These factors warranted the development of a new Valley Water Demand Model. After a competitive bidding process, Valley Water contracted with Hazen and Sawyer (Consultant) to develop a new demand model. Valley Water staff are providing an update on the demand model effort, including initial results, at the September 29, 2020 Water Conservation and Demand Management Committee meeting.

Next steps

Staff are using Valley Water's Water Evaluation and Planning (WEAP) model to evaluate the updated projects in Attachment 1 with the new demands and water supply system updates. Using the WEAP model, staff will assess what level of investment is needed to meet the level of service goal and

which projects, given the Master Plan investment strategy, can be used to achieve that goal. Staff plans to present the MAP report to the Board in fall 2020.

ATTACHMENTS:

Attachment 1: Project list

Attachment 2: Staff presentation

UNCLASSIFIED MANAGER:

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