



STAFF REPORT

Meeting Type: Board Meeting
Title: Water Supply Roadmap Update
From: Paul Sellier, Water Resources Director *PS*
Through: Ben Horenstein, General Manager *BH*
Meeting Date: October 10, 2023

TYPE OF ACTION: Action X Information Review and Refer

RECOMMENDATION: Receive staff update on Water Supply Roadmap Projects

SUMMARY: On February 28, 2023, the Board selected the Integrated Roadmap for improved water supply resiliency (Roadmap); and since that time, staff has been implementing the early action projects, while in parallel working to procure consulting teams to implement the longer term, more complex projects. Staff will provide a presentation on progress to date on Roadmap implementation.

DISCUSSION: In the presentation, staff will briefly review the status of the early action projects, including:

- Pumping water from Phoenix to Bon Tempe - the recent inspections revealed existing conditions are favorable and the design work can now proceed. Additionally, the team is working to set up a site visit with permitting agencies to help clarify the project work and goals.
- Electrification of Soulajule Pump Station - discussions with PG&E are continuing while PG&E is in the process of completing a load study.
- Stream Release Automation - the team has achieved necessary permissions for equipment installation. Equipment to measure streamflow has been installed near Shafter Bridge and staff are now working to capture that data to the District's SCADA system before working on the control logic for the release valve at Kent reservoir. Staff are also planning similar work at Walker Creek to improve the accuracy of releases.
- District water conservation efforts continue to target a range of incentives with a focus on turf removal.

To support implementation of the longer-term projects, the District has engaged the expertise of consulting teams to ensure the thorough documentation and the evaluation of alternatives that will lead to preferred alternative projects for both local storage and conveyance. The preferred alternatives

will be advanced to approximately 30% design to support review of any proposed projects in compliance with the California Environmental Quality Act (CEQA).

Carollo Engineers will support the implementation of the Sonoma Marin Regional Conveyance project and Terra GeoPentech will provide implementation services for local storage options. The conveyance team is targeting a preferred alternative by June of 2024 and 30% design by early 2025. For storage, the team is estimating that one or more preferred alternatives will be determined by June/July 2024 and 30% design by then end of 2025.

In collaboration with the District, the City of Petaluma's consultant, Kennedy Jenks, has completed an initial review of groundwater availability for a potential brackish desalination plant as proposed by Jacobs in the Strategic Water Supply Assessment. The review of existing data supports the conclusion that the groundwater in the area around the City of Petaluma is not saline water with a few exceptions. This places the water into the Groundwater Sustainability Agency purview and from a review of groundwater withdrawals and recharge of the groundwater basin, the basin would not have the capacity to support the desired level of withdrawals of potable water.

There is an opportunity to further investigate the geology nearer to San Pablo Bay where it may be possible to locate an ancient (paleo) riverbed channel that could then be used to support a subsurface intake structure for a desalination plant. The paleo channel would likely be more directly hydraulically connected to the bay itself, and therefore much less likely to affect the existing potable groundwater basin. This might provide environmental and potential cost benefits over an open bay intake for desalination.

In addition to the efforts described above, staff continue to be vigilant in its efforts to find appropriate grant opportunities to help support all projects identified in the Roadmap, including grants aimed at recycled water projects. Staff will also provide a brief update on the status of funding and grant applications.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S): None.