



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors

Title: Capital Improvement Program – Tocaloma Pump Station Rehabilitation Project (D20008)

From: Alex Anaya, Director of Engineering

Through: Ben Horenstein, General Manager 

Meeting Date: January 27, 2026

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on the proposed Tocaloma Pump Station Rehabilitation Project

SUMMARY: The proposed Tocaloma Pump Station Rehabilitation Project scope includes a new electrical switchgear, variable frequency drives for each pump, new fire-hardened electrical control building, replacement of five (5) pumps and motors, and replacement of critical valves and appurtenances.

DISCUSSION: The Tocaloma Pump Station, which was constructed in 1961 and is in Tocaloma, California, is a critical component of the District's raw water conveyance system. The facility consists of a steel pump house building and a separate cinder block electrical control building, and it supplies untreated water from both Nicasio and Soulajule Reservoirs to the San Geronimo Treatment Plant. The pump station operates one 200-horsepower pump and five (5) 400-horsepower vertical turbine pumps. Depending on operational conditions, the pump station can provide approximately 50 percent of the San Geronimo Treatment Plant's annual water supply. The current maximum operational capacity of the pump station is 20 million gallons per day.

The existing electrical control building houses the pump station's electrical switchgear, six motor starters, programmable logic controller, fuses, and associated appurtenances. All electrical switchgear and motor starters are original to the pump station and are beyond their intended service life and considered obsolete. Replacement parts for this equipment are no longer manufactured, creating a moderate likelihood of failure across all six pumps. Failure of any motor starter would render the associated pump non-operational and effectively unrepairable, resulting in a loss of pumping capacity and reduced system reliability and redundancy.

The proposed Tocaloma Pump Station Rehabilitation Project is intended to address these systems risks by replacing obsolete mechanical and electrical equipment that has reached the end of its useful life.

The project will modernize the facility to current design, safety, and operational standards while improving efficiency and operational flexibility. A central component of the project is replacement of the existing electrical equipment and motor starters with a new motor control center incorporating variable frequency drives. The variable frequency drives will allow operators to better regulate flow rates to the San Geronimo Treatment Plant, improve system efficiency, and reduce electrical demand charges.

The project includes replacement of the existing electrical control building with a new fire-hardened, seismically resilient structure. The existing electrical control building does not meet current seismic design requirements due to insufficient structural reinforcement and is undersized to accommodate modern electrical equipment while maintaining required clearances in compliance with National Electrical Code safety standards. The new building will be constructed with reinforced concrete masonry unit walls on a concrete slab foundation and a fire-hardened metal roof. Heating, ventilation, and air conditioning systems will be provided to maintain appropriate environmental conditions for the electrical equipment, supporting long-term reliability and extending useful equipment life.

As part of the rehabilitation effort, the project will replace the five (5) original 400-horsepower vertical turbine pumps. These pumps have undergone numerous repairs over the past 65 years of use and exhibit significant wear. Recent efficiency testing indicates the existing pumps operate at approximately 61 to 67 percent efficiency, which limits available pumping capacity and increases electrical energy consumption. The replacement pumps will be designed with efficiencies of 86 percent or greater, improving hydraulic performance, increasing available flow capacity, and reducing ongoing electrical operating costs. The remaining single 200-horsepower pump was recently refurbished in 2021 and tested at 75 percent efficiency rating. Due to the recent refurbishment, the pump will remain and be replaced at a later date.

Additional project elements include installation of a new radio tower to improve operational communications, installation of new cathodic anodes to provide corrosion protection for inlet and outlet piping, drainage improvements, replacement of critical valves, recoating of the steel pump building structure, and installation of perimeter security fencing.

The proposed Tocaloma Pump Station Rehabilitation Project is focused on restoring a critical pumping facility to modern operational standards, improving efficiency through the use of variable frequency drives, and increasing system resiliency through a new fire-hardened, seismically compliant electrical control building. The project directly addresses equipment obsolescence and reliability risks while supporting the District's long-term water supply operations.

Estimated Budget:

Engineer's Estimate:	\$ 12,800,000
Contingency (10%):	\$ 1,300,000
Prof. Fees	\$ 703,890
District Labor/Inspection:	\$ 350,000
Total Budget:	\$ 15,153,890
Budget Category:	A1A07

Estimated Project Implementation Schedule:

Project Advertisement:	February 3, 2026
Bid Opening:	March 17, 2026
Project Award:	April 21, 2026
Estimated Completion Date:	November 30, 2028
Duration:	954 days

Estimated Construction Timeline

Under Contract	Spring 2026
Long Lead Time Items ⁽¹⁾	Summer 2026 – Summer 2027
Expected Pump Station Shutdown ⁽²⁾	Summer 2027 – Summer 2028
Pump Station Startup/ Project Complete	Fall 2028

⁽¹⁾ Critical path construction items only, such as procurement of electrical equipment.

⁽²⁾ Critical path: demo electrical building, construct CMU building, install new pumps/motors/VFDs/switchgear.

District staff intends to make a recommendation for consideration of project approval and contract award for this item at a future regularly scheduled Board of Directors meeting.

ENVIRONMENTAL REVIEW: The Director of Engineering has determined that the Project is Categorically Exempt pursuant to CEQA Guidelines Section 15302(c), Replacement or Reconstruction. The Project qualifies for exemption pursuant to Section 15302(c) inasmuch as it is the replacement of an existing electrical building and pumps involving negligible or no expansion of capacity.

FISCAL IMPACT: The total estimated cost to complete the Tocaloma Pump Station Rehabilitation Project is \$15,153,890, which includes District labor, professional services, construction costs, and contingencies. The project is partially funded through the Adopted FY 2025–27 Two-Year Capital Improvement Budget. Sufficient fund balance is available in the FY 2026–27 budget to cover anticipated contractor invoices through June 2027, the majority of which are associated with early procurement of long-lead time electrical equipment. Staff will prioritize and identify the remaining project funding in the FY 2027–29 Capital Improvement Budget to fully support construction and project completion.

ATTACHMENT(S):

1. Area and Site Maps