



CITY OF CONCORD

New Hampshire's Main Street™

REPORT TO MAYOR AND CITY COUNCIL

DATE: December 28, 2018
To: Mayor and City Council
From: Earle M. Chesley, P.E., General Services Director
Subject: CIP #372: Pump Station #5 Refurbishment and Upgrade.

Recommendation

1. Accept this report; and
2. Set the attached resolution, which appropriates the sum of \$285,200 and authorizes the issuance of bonds and notes for \$285,200, for a public hearing on February 11, 2019.

Background

The Water Treatment Plant has been working on replacing aged pumping equipment, and correcting an employee and environmental safety issue at the Broad Cove Drive raw water pumping station (Station 5).

This station transfers water from the Contoocook River to Penacook Lake during dry periods when additional water is needed. The station, constructed in 1981, still has the original pumps and motor controls which have been unreliable and offer no pumping rate flexibility. Upcoming rulemaking will limit the amount of water being withdrawn from the river which will require control and pump upgrades. As a note during the 2016 drought 1.0 billion gallons was pumped from the Contoocook River. The Water Treatment Plant (WTP) processed a total of 1.6 billion gallons for the entire year indicating that most of the water produced in 2016 actually came from the river, and not Penacook Lake.

During the 2016 Sanitary Survey it was noted that there was a significant deficiency in worker and environmental safety in the chemical containment area. The storage area has no containment, and a floor drain exiting the building provides a direct pathway back to the Contoocook River.

Significant deficiencies must be corrected in a timely manner according to NHDES rule. Design and bid have been completed and only the construction portion remains.

Discussion

The Water Master Plan forecasts future water needs and identifies sources for the expected consumption and growth of the community. The current combination of Penacook Lake and supplemental water from the Contoocook River has been identified as the primary source through the year 2040. The Master Plan shows the critical importance of relying on the Broadcove Drive transfer station for the foreseeable future.

Original engineers estimate completed in 2016 was approximately \$200,000 to \$250,000. After design and time passed, the estimate grew to \$533,000. An RFP was issued and low bid came in at \$475,000. The remaining budget after the design work was complete is \$189,800 leaving a shortfall of \$285,200.