



CITY OF CONCORD

New Hampshire's Main Street™

REPORT TO MAYOR AND CITY COUNCIL

DATE: September 22, 2020

To: Mayor and City Council

From: Earle M. Chesley, P.E. General Services Director

Subject: Supplemental appropriation for CIP #88 Relocation and Replacement of Pump Station #4.

Recommendation

1. Accept this report and;
2. Set the attached resolution for a supplemental appropriation for a public hearing on November 9, 2020.

Background

The Water Treatment Plant has been working on replacing Pump Station 4 which provides all finished water to the City. The existing building, constructed in the 1940s, has been identified for relocation and replacement. The City Council approved \$4.2 M in funding during FY 2020 to replace the building with a new building providing more efficient equipment as well as to provide pumping redundancy that the current station does not have.

The design of the new facility was completed in early 2020. The original engineer's estimate was \$4.2M through the design process. Since March 2020, the engineer's estimate increased from \$4.2M to \$5.0M due to qualified contractor's ability to hire skilled labor, and the availability of materials needed to construct the new station. After the project bid opening on September 1, 2020, the anticipated total cost of the project is \$4.825M which includes project construction, engineer construction management, and contingency funding.

Discussion

Pump Station 4 has provided continuous service since the 1940s when it was placed in service. The equipment is aged, inefficient, and due for replacement. During the dry season this summer, the existing station was pressed to meet peak flow demands. Once peak flows exceed 7 MGD, the station no longer has pumping redundancy placing the community at risk meeting water quantity demands for drinking water and fire protection. The new pump station is designed with redundancy to meet peak flow demands. Additionally, the new pump station will have improved energy efficient motors and controls.

The current pump station is located within the Zone 1 Flood Impact Area of the Penacook Lake High Hazard Dam. If the dam were to fail, the existing station would be adversely impacted by the flood wave and the City could likely lose drinking water supply and fire protection services until emergency pumping facilities were restored after the event. The new pump station will be constructed out of the flood zone and eliminates this risk.

The new pump station will address these risks, provide improved system resiliency, enhance operational readiness and reduce energy consumption.

The funding sources for the \$625,000 supplemental appropriation are General Obligation Bonds (\$325,000) and Water Investment Fee Reserve (\$300,000).

Delaying this project will put the city at risk meeting current water quantity peak demands for drinking water and fire protection needs.

Cc Marco Philippon, Water Superintendent