



CITY OF CONCORD

New Hampshire's Main Street™

REPORT TO MAYOR AND CITY COUNCIL

DATE: April 17, 2018
To: Mayor and City Council
From: Earle M. Chesley, P.E., General Services Director
Subject: Repurpose funds for the Water Treatment Plant Carbon Dioxide System

Recommendation

Accept this report and approve the attached consent resolution.

Background

The Water Treatment Plant has been working on replacing the carbon dioxide system which is an integral part of the corrosion control program for the city water supply. The initial planning estimate for the tank system replacement was \$135,000. Through the design and tank inspection process, it was identified that the tank controls and instrumentation were beyond their life expectancy and in need of replacement. The process was also identified as being the only treatment process that has no redundancy.

The new replacement tank system is designed to replace the existing tank with two smaller tanks and controls to provide redundancy and the ability to operate independently if there were ever an issue with either tank, or controls. The new system has been designed and an engineer's estimate is \$480,000. After design expenses, \$111,849 remains for the construction phase.

Discussion

General Services has been working on identifying and correcting vulnerable areas of the treatment process to ensure safe, continuous, and reliable drinking water to the community. Since the Water Plant is the only source for water to the City, it is important for each process to have redundancy in the water treatment process. The carbon dioxide system is the only system left without redundancy. This leaves the system vulnerable if the current system becomes

inoperable, water production would be adversely impacted until the system was returned to service. Since the plant has only one day of reserve supply available, it is very possible the corrosion system could not be returned to service within that time frame causing water production to occur without corrosion control protection. Temporary suspension of the corrosion control process while it is being repaired would require regulatory approval from the New Hampshire Department of Environmental Services.

Through process changes and excellent bid pricing on prior year projects, the Water Treatment Plant has identified sufficient funds that can be repurposed and not negatively impact the current Capital Improvement Program. The repurposing request of \$369,986 will allow the project to be completed with no impact on the current CIP, and provide redundancy for the corrosion control process.