



Legislation Text

File #: 69270, **Version:** 1

Fiscal Note

The proposed resolution amends the adopted 2022 Water Utility Capital Budget by authorizing an additional \$500,000 of budget authority for the proposed Operational/Pressure Zone Resiliency Project (MUNIS 14004). This project consists of four distinct sub-projects intended to significantly increase operational flexibility across pressure zone boundaries strategically located throughout the water distribution system with a limited capital investment. Descriptions of the proposed projects are included in the resolution body below, with additional background information and scope information provided in the attached project scoping memo.

Project costs will be funded through existing revenue bonds. No increase in Water Utility debt obligations or new borrowing will be required for these projects. The 2022 Water Utility adopted Capital Budget will be amended to add an additional \$500,000 of budget authority to MUNIS 14004. The \$500,000 will support the following pressure zone resiliency projects:

- \$200,000 - Well 12 Booster Upgrade and Pressure Zone 7-8 Transfer Vault
- \$120,000 - Pressure Zone 6W-7 Pressure Control and Transfer Vault
- \$100,000 - Pressure Zone 4-6E Pressure Control and Transfer Vault
- \$80,000 - Pressure Zone 6E-6W Pressure Control and Transfer Vault

Title

Amending the 2022 Water Utility Capital Budget to include \$500,000 of additional budget authority for four proposed Operational/Pressure Zone Resiliency Projects (citywide, various alder districts).

Body

WHEREAS, In the past, we have experienced a limited supply of water available to certain areas of our distribution system, especially during equipment failure events or maintenance-related facility shut-downs; and

WHEREAS, These vulnerable areas are generally located at the far ends of the system or along pressure zone boundaries, and because of pressure differentials, it can become difficult to get sufficient water to these areas, even if other zones of the system have excess supply capacity; and

WHEREAS, additional supply wells and storage facilities could be added to higher elevation areas to provide additional water supply redundancy, but at an unrealistic Capital expense and timeline; and

WHEREAS, mandatory conservation practices can be implemented to reduce demand in times of water supply limitations, which can be effective but challenging to enforce compliance and beyond the operational control of the Utility, especially when managing supply for public fire protection needs; and

WHEREAS, the Utility has identified four strategically located operational/pressure zone resiliency projects that will be able to create and remotely operate pressure control and zone transfer vaults which allows the Utility to utilize and transfer surplus water across pressure zones in times of need, mitigating a significant amount of existing system risk within an affordable Capital investment; and

WHEREAS, the proposed projects can be described as follows:

- Well 12 Booster Upgrade and Pressure Zone 7-8 Transfer Vault:

This project is located at Unit Well 12 near Whitney Way and the Beltline Hwy (11th AD and 19th AD). The project replaces the end-of-life, undersized existing booster pump with new pumping equipment consistent with current Utility pump and motor specifications and will include the capacity to pump into higher pressure Zone 8. The project also includes remote-actuated valve vaults which will allow the Operator to designate which zone the station will supply. Estimated cost: \$200,000.

- Pressure Zone 6W-7 Pressure Control and Transfer Vault:

This project is generally located near Whitney Way and Old Middleton Rd (11th AD and 19th AD). The project will include the installation of a pressure control and zone transfer vault which will allow water to be transferred from Zone 7 to supply the western extend of Zone 6-West. The vault will automatically actuate in the event of an unexpected pressure loss, but will also be remotely operable to provide flexibility and redundancy when required. Estimated cost: \$120,000.

- Pressure Zone 4-6E Pressure Control and Transfer Vault

This project is generally located near Unit Well 9 on Spaanem Rd (15th AD). The project will include the installation of a pressure control and zone transfer vault which will allow water to be transferred from Zone 6-East to supply northern portions of Zone 4. The vault will automatically actuate in the event of an unexpected pressure loss, but will also be remotely operable to provide flexibility and redundancy when required. Estimated cost: \$100,000.

- Pressure Zone 6E-6W Pressure Control and Transfer Vault

This project is generally at the Yahara River within an existing system valve vault (6th AD and 12th AD). The project will include the installation of a pressure control and zone transfer vault which will allow water to be transferred from Zone 6-East to Zone 6-West across the Yahara River. The vault will automatically actuate in the event of an unexpected pressure loss, but will also be remotely operable to provide flexibility and redundancy when required. Estimated cost: \$80,000.

NOW, THEREFORE, BE IT RESOLVED that the 2022 Water Utility Capital Budget is hereby amended to authorize an additional \$500,000 of budget authority for four proposed Operational/Pressure Zone Resiliency Projects, to be completed without any additional debt obligations in order to improve operational flexibility and mitigate existing water supply risks by implementing the Pressure Zone Resiliency projects, as described herein.