



Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: October 16, 2023

Re: Authorizing construction of the Southeast Water Pumping Station Project and calling for bids through the Purchasing Division.

## Executive Summary

Staff has prepared for council consideration an ordinance authorizing construction and issuing a contract for the work by bid call through the Purchasing Division for the construction of the Southeast Water Pumping Station Project. The pumping station will be located south of the intersection of Lenoir Street and New Haven Road in the southeast portion of the City as shown on the attached Location Diagram. A public hearing was held on June 6, 2022. The engineer's opinion of probable cost for this project is \$2,880,000. The project will be funded with Water and Electric Revenue bonds and enterprise revenues from the Water Utility.

## Discussion

In 2008 Jacobs Engineering provided the City with the Long-Range Water System Study which identified a need to construct a booster pump station and establish a new pressure zone in the southeast portion of the City's water service territory as shown on the attached Southeast Pressure Zone Boundary diagram. The 2008 Study originally recommended construction of the station in 2019. The study was updated in 2015 and recommended construction of the station in 2033. These projections were largely based on growth trends at the time of the reports. Since the publishing of these reports the City has seen significant development in the Southeast portion of the water service territory necessitating the need to accelerate the construction of the Southeast Booster Pump Station and establishment of the Southeast Pressure Zone. The Southeast Booster Pump Station project was identified in the 2018 Water Utility bond package.

Black & Veatch was selected for the design of this improvement through an RFP process authorized by council on 9/8/2020. Black & Veatch approached the project starting with a hydraulic analysis to verify the extent of the area to include within the new pressure zone. The proposed area was identified primarily through examining elevation data indicating where customers could benefit from an increase in pressure. Once the affected area was identified, its current and anticipated future uses were studied to determine the design criteria for the pump station.

There is not currently a booster pump station located in the southeast portion of the City. The new booster pump station will allow staff to establish a new pressure zone as shown on the attached Southeast Pressure Zone Boundary diagram and will provide higher and more consistent water pressures for customers in this area of the City. It should be noted that the existing water pressure in this area of the City is sufficient to meet regulatory requirements. However, some customers have installed pressure booster pumps within their facility to



provide a more desirable pressure to upper floors of their building and to help automatic flush valves operate correctly.

The new booster pump station has been designed to meet the current water consumption demands and be expanded to accommodate the projected future development within the new Southeast Pressure Zone. The new booster pump station will enhance fire protection in this area of the City and it is anticipated that this project will help to alleviate the need for additional pumping within individual facilities under most circumstances.

Current engineer's opinion of probable cost for this project is \$2,880,000. Funding of approximately \$2,751,000 is currently available under Project W0280 of the capital improvement program for completion of the project.

### Fiscal Impact

Short-Term Impact: Current engineer's opinion of probable cost for this project is \$2,880,000. Long-Term Impact: This project is anticipated to have a minimal impact to the annual budget for operations and maintenance.

### Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

Primary Impact: Reliable and Sustainable Infrastructure, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Not applicable, Tertiary Impact: Not Applicable

### Legislative History

Date	Action
08/07/2023	(B170-23) Authorizing the acquisition of an easement for construction of the southeast pump station and water main improvement project.
06/06/2022	(PH21-22) Proposed construction of a southeast pump station and associated water main improvement project and establishing a southeast pressure zone within the water distribution system.
05/16/2022	(R70-22) Setting a public hearing: proposed construction of a southeast pump station and associated water main improvement project and establishing a southeast pressure zone with the water distribution system.



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

09/08/2020	(B220-20) Authorizing a professional engineering services agreement with Black & Veatch.
07/01/2019	(B172-19) Amending the FY 2019 Annual Budget by appropriating funds from the sale of Water and Electric System Revenue Bonds to various F& 2019 water capital improvement projects.
05/06/2019	(B99-19) Authorizing the issuance of Water and Electric System Revenue Bonds, Series 2019A.
04/15/2019	(R61-19) Authorizing the notice of sale of Water and Electric System Revenue Bonds, Series 2019A.
09/04/2018	(R133-18) Declaring results of the special election held on August 7, 2018.
05/21/2018	(B93-18) Calling a special election on Tuesday, August 7, 2018 for the issuance of Water and Electric System Revenue Bonds

## Suggested Council Action

Approval of the ordinance.