



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: May 16, 2022

Re: Setting Public Hearing – Construction of Southeast Water Pumping station and establishment of a Southeast Pressure Zone

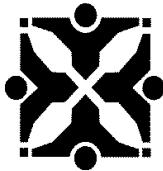
## Executive Summary

Staff has prepared for council consideration a resolution setting a public hearing on June 6, 2022 for the construction of a Southeast Pump Station and the establishment of a Southeast pressure zone within the water distribution system. The resolution estimate for this project is \$3,500,000. An interested parties meeting for this project was held on February 2, 2022.

## Discussion

In 2008 Jacobs Engineering provided the City with the Long Range Water System Study which identified a need for a future booster pump station in the Southeast portion of the City's water service territory. The 2008 Study originally recommended construction of the station in 2019. The study was updated in 2015 which 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 design of the Southeast Pump Station. The pump station will provide higher, more consistent water pressures for customers in the southeast area of the water service territory. The existing pressure is adequate to meet regulatory requirements in all locations currently served by the utility. 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. This project should help to alleviate the need for additional pumping within individual facilities under most circumstances. The project will also enhance fire protection in the area.

Black & Veatch was selected for the design of this improvement through an RFP process with an engineering agreement approved by Council on September 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 water pressure. Once the affected area was identified, its current and anticipated future demands were studied to determine the design criteria for the pump station. The pump station is being designed to meet current and expected maximum day demand of 23 million gallons per day (MGD) with a maximum hourly demand of 39 MGD. The ability to expand the capacity of the pump station to a maximum hourly demand of 47 MGD in the future is being considered within the design. Negotiations are under way for procurement of property for placement of the pump station. Staff is looking for direction to proceed with



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final design for construction and permitting of the pumping station and associated water main improvements.

An interested parties meeting for this project was held on February 2, 2022. All feedback received to date has been positive. The resolution estimate is \$3,500,000 for the total project cost including engineering, easement acquisition and construction. This funding has previously been appropriated in Capital Project W0280. \$748,699 will be spent on engineering and the engineer's opinion of probable cost for construction of this project is \$2,880,000. Additional funding of approximately \$150,000 may be necessary to complete this project.

## Fiscal Impact

**Short-Term Impact:** \$3,500,000 is currently appropriated for this improvement under Capital Improvement Program project number W0280. Additional funding of approximately \$150,000 may be necessary to complete this project.

**Long-Term Impact:** Approximately \$20,000 will need to be added to the operating budget each year once this is placed into service.

## Strategic & Comprehensive Plan Impact

### Strategic Plan Impacts:

Primary Impact: Reliable 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
9/8/2020	(Ord024349) Authorizing a professional engineering services agreement with Black & Veatch
7/1/2019	(Ord23850) Authorizing the issuance of Water and Electric System Revenue Bonds, Series 2019A.
5/6/2019	(R61-19) Authorizing the notice of sale of Water and Electric System Revenue Bonds, Series 2019A.
4/15/2019	(Ord23922) Appropriating funds from the sale of Water and Electric System Revenue Bonds.
9/4/2018	(R133-18) Declaring results of the special election held on August 7, 2018.
5/21/2018	(Ord23535) 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 resolution.