



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: October 3, 2022

Re: Authorizing an agreement for professional engineering services with Black & Veatch, Corporation to provide an update to the Water Distribution System Master Plan.

Executive Summary

Staff has prepared for Council consideration a resolution authorizing the City Manager to execute an agreement with Black & Veatch, Corporation in an amount of \$198,269.00 to provide professional engineering services related to updating the Water Distribution System Master Plan. As a participant in Missouri Department of Natural Resources' Owner Supervised Program the City is required to maintain and periodically submit a current master plan for the City's water distribution system.

Discussion

The City's Water Distribution System Master Plan or Long Range Water System Study was approved by Council in 2008 and last updated in 2015. The Water Utility periodically updates this plan every five to ten years as a regulatory measure. The update interval is largely dependent on growth and changes in water demands. This master plan serves as a planning tool for future Capital Improvements to the City's water distribution system and satisfies a requirement of Missouri Department of Natural Resources' Owner Supervised Program in which the City is a participant.

Staff requested a proposal from Black & Veatch Corporation (B&V) to provide professional engineering services for updating the Water System Master Plan. Per the Scope of Services, Black & Veatch Corporation will perform the following tasks:

Task 1 – Project Administration, Management, and Quality: B&V will provide project administration including management of staffing, budget, schedule, and quality of work products.

Task 2 – Update Population, Demographic, and Land Use Planning Characteristics: Under this task, B&V will evaluate growth characteristics to be used in the Water Distribution System Master Plan. This includes evaluation of census data, planning projections, land use data, and current metered water sales.

Task 3 – Develop Water Demand Forecasts: This task will include the development of demand forecasts. Historical data will be used to determine water use characteristics and trends associated with water use for the City's various customer classes.

Task 4 – Update Water System Model: B&V will provide updates to the City's existing water system computer model and develop criteria to be used in system evaluation. This will



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include validation of the model and development of design scenarios for short, mid and long-term water system design.

Task 5 – Water System Evaluations: Under this task, B&V will evaluate the storage capacity, supply capacity and pumping capacity of the City's water distribution system. This task will identify limitations of the distribution system and evaluate required improvements.

Task 6 – Capital Improvements Plan: B&V will develop a Capital Improvement Plan for major improvements to the City's water distribution system through year 2040. This will include budget costs, prioritization of projects, and will identify improvements needed for both capacity and reliability.

Task 7 – Water System Master Plan report: B&V will provide a Final Water Distribution System Master Plan Report which details the work conducted in each task.

Additional details of each task can be found in the Scope of Services included in Exhibit A to this resolution. The proposed budget for this agreement with Black & Veatch Corporation is \$198,269.00 and will be paid for with Water Utility Funds.

Fiscal Impact

Short-Term Impact: The proposed agreement is for \$198,269.00

Long-Term Impact: There is no long term impact associated with the services provided.

Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

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

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Land Use & Growth Management, Tertiary Impact: Not Applicable

Legislative History

Date	Action
None	

Suggested Council Action

Approval of the resolution.