



Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: July 20, 2020

Re: Professional Engineering Services Agreement with HDR Engineering, Inc. for Water Treatment Plant Upgrade-Phase 1

Executive Summary

Staff has prepared for Council consideration an ordinance authorizing the City Manager to execute an agreement with HDR Engineering, Inc. for a not to exceed amount of \$2,966,080 to provide professional engineering services related to Water Treatment Plant Upgrade-Phase 1. HDR Engineering, Inc. was selected for this project in accordance with the City's professional consultant procurement guidelines.

Discussion

In 2012 Carollo Engineering provided the City with the McBaine Water Treatment Plant Expansion Preliminary Design Report which evaluated expansion alternatives and treatment processes. In 2016 Black & Veatch provided the City with a Condition Assessment Report for the McBaine Water Treatment Plant which provided recommendations for the rehabilitation of the plant. In 2018 Carollo Engineering provided the City the Update to 2011 Preliminary Design Report in conjunction with the Recommendations of the Drinking Water Planning Work Group. This report further evaluates expansion alternatives, treatment processes and recommends restoration of existing plant capacity as the first phase of improvements. In 2018 voters approved bond funding for the Water Treatment Plant Upgrade-Phase 1.

The McBaine Water Treatment Plant was originally constructed in 1970 and has had a number of upgrades and expansions throughout its service life. These improvements have allowed the facility to increase in capacity from 16 million gallons per day (MGD) to its current rated capacity of 32 MGD, while continuing to provide quality water to customers. Over time, deterioration of assets has affected performance, operational flexibility, and reliability, limiting the overall capacity of the facility. Firm capacity of the facility in its current state has been derated to 24 MGD as recommended in the 2016 Condition Assessment. Replacement and upgrades to existing equipment and structures are necessary, to continue to produce quality water at the design capacity. HDR Engineering, Inc. will provide preliminary and final designs, and construction plans, for the Water Treatment Plant Upgrade-Phase 1. A complete copy of the scope of basic services is attached to the agreement.

The not to exceed design fees for this project are \$2,966,080. This amount is within the usual and customary guidelines for this type of project. An allowance in the amount of \$200,077 has been included for supplemental services which may include additional pilot testing, pilot testing assistance, and long range capital planning. Once construction is ready to proceed,



City of Columbia

701 East Broadway, Columbia, Missouri 65201

it will be necessary to amend this contract to include Construction Phase engineering services.

The Water and Light Advisory Board has reviewed this agreement at their July 1, 2020 meeting and voted to recommend Council approval.

Fiscal Impact

Short-Term Impact: The engineering contract is for a not to exceed amount of \$2,966,080 and will be paid from Water Bond Funds budgeted for this project.

Long-Term Impact: The construction and engineering costs for this project are estimated to be approximately \$23,000,000. The engineering design will provide a more accurate evaluation of construction costs depending on the total rehabilitation needs of the facility.

Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

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

Comprehensive Plan Impacts:

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

Legislative History

Date	Action
07/01/2019	(Ord23922) Amending the FY2019 Annual Budget by appropriating funds from the sale of Water and Electric System Revenue Bonds to various FY2019 water capital improvement projects.
05/06/2019	(Ord23850) 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	(Ord23535) Calling a special election on Tuesday, August 7, 2018 relating to the issuance of Water and Electric System Revenue Bonds.

Suggested Council Action

Authorize the City Manager to execute the agreement with HDR Engineering, Inc. to provide professional engineering services for the Water Treatment Plant Upgrade-Phase 1.