



City of Pflugerville

Legislation Text

File #: 2022-0102, Version: 1

Approving a contract with Dupont/Memcor in the amount of \$635,100.00 to serve as the membrane supplier for the Surface Water Treatment Plant Expansion Project and authorizing the City Manager to execute the same.

City Staff requests City Council approval of a procurement agreement between the City of Pflugerville and DuPont/Memcor related to the Surface Water Treatment Plant Expansion. DuPont/Memcor will serve as the Membrane Filtration System Supplier (MFSS) for Pre-Procurement with the delivery process generally consisting of five (5) Phases to be executed individually as “Two Separate Contracts,” which will be discussed as Part 1 and Part 2 of the attached contract agreement. **Part 1** will include combining Phases 1 and Phase 2, while the **Part 2** component combines remaining Phase 3, Phase 4 and Phase 5. The proposed contract agreement for Part 1 provides a recommended Lump Sum cost of \$635,100.00 which would be executed upon approval by City Council on 1/25/2022 and the remaining contract amount related to Part 2 will be under a separate contract to awarded at a later date.

Part 1: Major items of Work includes Phase 1 and Phase 2 in support of assisting Ardurra (Design Engineer) with development of the construction documents and bidding. Each phase is described below:

Phase 1 - Design Technical Assistance - Is to be provided by the Membrane Filtration System Supplier (MFSS) to assist Ardurra Group, Inc. (Engineer) to finalize the design to 100% construction documents including the selected submerged Membrane Filtration System (MFS). This Technical Assistance consists of designing Equipment to be provided by the MFSS, providing 3D models of all Equipment for incorporation into Engineer’s design prior to the 90 percent design submittal, submittal of Shop Drawings and samples, general arrangement of membrane units, installation manuals, and project coordination with Engineer during the design phase, including participation in progress design meetings. **Lump Sum of: \$351,600.00**

Phase 2 - Pilot Plant Construction and Pilot Testing - Consists of supply, delivery, installation, startup, operational assistance, decommissioning and removal of a pilot facility that simulates the full-scale treatment process and consists of coagulation, flocculation, and plate settles pretreatment followed by membrane to treat Lake Pflugerville water. The Membrane Filtration System Supplier (MFSS) is to provide pre-treatment and membrane pilot units and other ancillary equipment, piping and valving, field instruments and devices, and electrical components for a fully functional pilot system. A detailed description of MFSS’s scope of work during this phase is provided in Appendix C of the proposed Contract Agreement. **Lump Sum of: \$283,500.00**

Part 2: Major Work items includes three (3) remaining phases which will be included as an allowance for a Pre-negotiated price added as part of a future Contract between the City and a General

Contractor for the Surface Water Treatment Plant Expansion construction. The same Membrane Supplier DuPont/Memcor's MFS will be supplied for installation. Descriptions for the phases below:

Phase 3 - Equipment Fabrication, Delivery, and Installation Oversight - consists of furnishing the Equipment required for the Pflugerville WTP membrane filtration system set forth in this Agreement. The Equipment also consists of furnishing manufacturer- trained personnel for the oversight of the installation of the equipment when specifically required by the City.

Phase 4 - Start-up, Commissioning, Testing, and Training - consists of training, operation and maintenance manuals, start-up, commissioning, demonstration testing and acceptance testing as specified or requested by Engineer.

Phase 5 - On-call Assistance: The Membrane Filtration System Supplier (MFSS) shall provide post-start-up, non-warranty Technical Assistance during the Overall Monitoring Testing as required by Owner.

The next steps include Ardurra, DuPont/Memcor and Design Team to complete final construction documents and bidding and City Staff will return to Council at a later date to request approval of a construction contract with a recommended General Contractor.

Project Background

The City is expanding its current surface water treatment plant by retrofitting the existing membrane filtration building and basins with a new membrane filtration system which is to be procured in advance of completing the 100% construction bidding documents. The membrane filtration system will provide removal of suspended solids, turbidity and pathogens that may be present in the pre-treated feed water. The system will be implemented according to the schedule set forth in the Procurement Agreement between the City and a preselected membrane supplier.

The raw water source for the Pflugerville Water Treatment Plant is the surface water from Lake Pflugerville, fed from the Colorado River. Feed water to the membrane filtration basins will receive pretreatment consisting of coagulation with aluminum chlorohydrate (ACH); flocculation and sedimentation with high-rate plate settlers. Feed water to the MFS will be prescreened using automatically backwashing strainers (part of the MFSS equipment). Waste backwash water from the membrane units will be sent to the Backwash Waste Clarifier and recycled to the raw water pipeline for blending with the raw water. Historical raw water quality and the anticipated feed water quality developed during a plate settler pilot study conducted by the Owner's Advisor are shown in Appendix A. It is intended for the MFSS to use this water quality data to determine compatibility in the selection of materials of construction for all the equipment within the MFSS scope of supply.

Prior City Council Action

City Council approved the selection of DuPont Water Solutions as the membrane filtration system supplier for the Pflugerville Water Treatment Plant Expansion at the January 11, 2022 meeting.

On December 14th, City staff provided an update regarding the selection process and the two proposals that were submitted by qualified membrane suppliers.

Deadline for City Council Action

Action is requested on January 25, 2022.

Funding Expected: Revenue Expenditure N/A

Budgeted Item: Yes No N/A

*This project is identified in the Water CIP as the WTP, HSPS, and Lake PS Expansion to 30.0 MGD

Amount: \$635,100.00

1295 Form Required? Yes No

Legal Review Required: N/A Required Date Completed: 01/20/2022

Supporting documents attached:

DuPont/Memcor Contract

Draft Presentation

Recommended Action

Approve a contract with Dupont Water Solutions in the amount of \$635,100.00 to serve as the membrane supplier for the Surface Water Treatment Plant Expansion Project and authorizing the City Manager to execute the same.