
Meeting Date

June 15, 2021

New Business Item #5

Subject

High Service Pump Performance Testing

Recommendation

Staff recommends the Board of Directors approve the Professional Services Agreement with Garver for Pump Performance Testing services as described herein.

Background/Analysis

In December 2020, the Authority entered into an agreement for Professional Engineering Services with Freese and Nichols, Inc. for the 2021 Water & Wastewater Master Plan and Impact Fee Update.

One of the key components of the project involves evaluating future high service pumping needs based on projected water demands. The high service pumping evaluation initially was planned assuming that existing high service pumps perform at the same level as when they were originally installed (as designed). However, as pumps and related equipment have aged and maintenance and repairs have been made, the actual field performance of the individual pumps as well as the combined pumping capacity of each of the high service pumping facilities can no longer be known precisely without field testing. Such field testing has not been conducted.

Additionally, due to uncertainty regarding the performance characteristics of high service pumps at the water treatment plant and the anticipated reevaluation of future pumping needs in conjunction with the Master Plan Update, the design of proposed improvements to High Service Pumps 1-4, previously undertaken through a contract with Kennedy/Jenks Consultants, was temporarily put on hold pending completion of the 2021 Master Plan Update.

During the data collection phase of the Master Plan Update, it became apparent that additional information regarding the actual performance characteristics of high service pumping facilities would be needed to ensure that the most cost-efficient recommendations are made. Freese and Nichols prepared pump testing protocols for the Authority to facilitate. However, given that Freese and Nichols does not have the equipment and personnel available at this time to conduct testing, BWA Staff sought assistance from other service providers.

BWA has negotiated a Professional Services Agreement with Garver to conduct the required pump testing, which will involve collection of existing data, pump performance testing, and preparation of technical memoranda which will be invaluable to the Authority in future project planning. Field testing of 19 high service pumps is proposed at the following facilities:

- Water Treatment Plant
- Hilltop Heights Pump Station
- Sessums Pump Station.

Services will be provided on an hourly basis, in accordance with the Engineer's hourly rate/fee schedule, not to exceed \$26,083.

Financial Impact

Funding for this project is available in the Water Impact Fee Fund.