



## Legislation Text

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File #: 2018-1039, Version: 1

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### **RFB-1802410 (GLWA-CON-222A)**

#### **Rehabilitation of Various Sampling Sites and Pump Station (PS) No. 2 Ferric Chloride System at Water Resource Recovery Facility (WRRF)**

Agenda of: December 12, 2018

Item No.: **2018-1039**

Amount: \$4,756,000.00

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

**FROM:** Sue F. McCormick  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** December 4, 2018

**RE: RFB-1802410 (GLWA-CON-222A)**

**Rehabilitation of Various Sampling Sites and Pump Station (PS) No. 2 Ferric Chloride System at Water Resource Recovery Facility (WRRF)**

### **MOTION**

Upon recommendation of Navid Mehram, Chief Operating Officer - Wastewater Operating Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. RFB-1802410 (GLWA-CON-222A) "Rehabilitation of Various Sampling Sites and Pump Station (PS) No. 2 Ferric Chloride System at Water Resource Recovery Facility (WRRF)" with Commercial Contracting Corporation at a cost not to exceed \$4,756,000.00 for a duration of 24 months;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

Wastewater samples are collected from the Water Recovery Resource Facility (WRRF) influent, effluent, and from various other process streams within the plant. These samples are analyzed to determine the strength and composition of sewage in order to effectively treat the wastewater. Each sample collected must be collected, handled, and transported to the laboratories by EPA-approved methods, in a manner that ensures the material represents the conditions that existed at the time of sampling.

Ferric Chloride is added to the influent wastewater at Pump Station No. 2 for the removal of phosphorus in order to meet a National Pollutant Discharge Elimination System (NPDES) permit requirement and to minimize phosphorus discharged into the receiving waters. Ferric Chloride dosage is currently controlled manually.

## **JUSTIFICATION**

Several sampling points at the WRRF (used to monitor influent stream, primary effluent stream, secondary stream, and effluent stream) are experiencing frequent maintenance issues and frequently shut down due to the failure of samplers and associated equipment. The failure to collect proper samples of different wastewater streams can cause incorrect analyses and therefore potential operational errors in the WRRF's treatment processes which could create permitting or public health problems. The completion of this rehabilitation project will allow for consistent and accurate sampling and will improve process reliability and reporting.

The Ferric Chloride Chemical feed system at Pump Station No. 2 needs urgent rehabilitation since the permanent equipment is now beyond the useful life and is non-operational. Currently, a temporary storage and pumping system has been in place for Ferric Chloride feed at Pump Station No. 2. The project includes real time analyzers to monitor the phosphorus influent and final effluent level to allow GLWA to optimize chemical dosing and, therefore, minimize costs.

Modification and rehabilitation of both the above systems will result in efficient operation and reduced maintenance costs.

## **FINANCIAL PLAN IMPACT**

**Summary:** Sufficient funds are provided in the financial plan for this project.

**Funding Source:** Wastewater Construction Bond

**Cost Center:** Wastewater Engineering

**Expense Type:** Construction (5421-892211.000-616900-216004)

**Estimated Cost by Year and Related Estimating Variance:** See table below.

**Fiscal Year**

FY 2018 Budget	\$36,000.00
FY 2019 Budget	487,000.00
FY 2020 Budget	3,500,000.00
FY 2021 Budget	<u>500,000.00</u>
Financial Plan Estimate	\$4,523,000.00
Proposed Contract Award	<u>4,756,000.00</u>
Negative Estimating Variance	\$(233,000.00)

**SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT**

Cost savings are not determinable at the time of this award.

The award of this contract to the vendor creates a negative estimating variance of \$233,000.00. This variance will be funded from capital reserves.

Project estimate	\$ 4,523,000.00
Proposed award	<u>4,756,000.00</u>
Capital reserve adjustment	\$ (233,000.00)

**COMMITTEE REVIEW**

This item was presented to the Operations and Resources Committee at its meeting on December 12, 2018. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

**SHARED SERVICES IMPACT**

This item does not impact the shared services agreement between GLWA and DWSD.