

Legislation Text

File #: 2019-051, Version: 1

Contract No. 1802543

Rehabilitation of Ferric Chloride Feed System at PS-1 and Complex B Sludge Lines (CIP# 211008)

Agenda of: February 27, 2019
Item No.: **2019-051**
Amount: \$2,322,045.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: February 27, 2019

RE: **Contract No. 1802543**
Rehabilitation of Ferric Chloride Feed System at PS-1 and Complex B Sludge Lines (CIP# 211008)
Vendor: Hazen and Sawyer, Inc.

MOTION

Upon recommendation of Navid Mehram, Chief Operating Officer - Wastewater, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. 1802543, "Rehabilitation of Ferric Chloride Feed System at PS-1 and Complex B Sludge Lines" with Hazen and Sawyer, Inc., at a cost not to exceed \$2,322,045.00 for a duration of 32 months, including a 10% contingency;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The National Pollutant Discharge Elimination System (NPDES) sets limits on the allowable concentration of Phosphorous in effluent wastewater from the Water Resource Recovery Facility (WRRF) operated by Great Lakes Water Authority (GLWA). The addition of Ferric Chloride in raw wastewater through the Ferric Chloride Feed System at Pump Station No.1 is key to the removal of phosphorous from wastewater and helps to protect receiving waters. The Ferric Chloride Feed System includes two 150,000 gallons storage tanks, two 175,000 gallons storage tanks, pumps and controls building, piping for pneumatic unloading and chemical feed, and other appurtenances.

Sludge Processing Complex B at the WRRF receives the waste activated sludge (WAS) from secondary clarifiers and sends it to Sludge Processing Complex A through sludge pipes for further processing. There is significant deposition in some of these sludge pipes connecting Sludge Processing Complex B to Complex A. This deposition is the result of 40+ years of mineral buildup in the sludge pipelines. This deposition reduces the cross-sectional area of the pipe and eventually may lead to full blockage.

JUSTIFICATION

The Ferric Chloride Feed System at Pump Station No.1 was constructed in the early 70's and all the equipment has reached the end of its useful life. The system needs to be rehabilitated to continue to function properly and to meet effluent NPDES permit requirements for phosphorous removal. This contract will provide the evaluation of the existing system and recommendations for system modifications followed by the engineering services for the rehabilitation of the existing system. It will also provide the engineering services to replace the sludge pipelines and recommendations to limit future mineral deposition in the pipes.

FINANCIAL PLAN IMPACT

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

Funding Source: Sewer Construction Bond

Cost Center: Wastewater Engineering

Expense Type: Construction (5421-892211.000-617950-211008)

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

Based on 2020-2024 CIP Preliminary Draft# 2:

Fiscal Year

FY 2019 Budget	\$ 1,000,000.00
FY 2020 Budget	200,000.00
FY 2021 Budget	200,000.00
FY 2022 Budget	<u>50,000.00</u>
Financial Plan Estimate	\$ 1,450,000.00
Proposed Contract Award	<u>2,322,045.00</u>
Negative Estimating Variance	\$ (872,045.00)

SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT

This project is the Rehabilitation of Ferric Chloride Feed System at PS-1 and Complex B Sludge Lines. Cost savings are not determinable at the time of this award. The award of this contract creates a negative estimating variance of \$872,045. This variance will be funded from capital reserves.

Project estimate	\$ 1,450,000.00
Proposed award	<u>2,322,045.00</u>
Capital reserve adjustment	\$ (872,045.00)

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on February 13, 2019. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

SHARED SERVICES IMPACT

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