

Legislation Text

File #: 2019-150, Version: 1

Contract No. 1803823

Lake Huron Water Treatment Plant Raw Sludge Clarifier and Raw Sludge Pumping Improvements

CIP#/BCE Score: 111007 / 53.2

Agenda of: April 24, 2019

Item No.: **2019-150**

Amount: \$7,056,735.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: April 3, 2019

RE: **Contract No. 1803823**
Lake Huron Water Treatment Plant Raw Sludge Clarifier and Raw Sludge Pumping Improvements
Vendor: Weiss Construction Co., LLC

MOTION

Upon recommendation of Cheryl Porter, Chief Operating Officer - Water and Field Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. 1803823 "Lake Huron Water Treatment Plant Raw Sludge Clarifier and Raw Sludge Pumping Improvements" with Weiss Construction Co., LLC, at a cost not to exceed \$7,056,735.00 for a duration of 780 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

Spent filter backwash is conveyed to the Waste Wash Water Retention Basin (WWRB) that was constructed in the early 1970s. Twice yearly, as part of the settling basin cleaning, the flush water and alum sludge from the Lake Huron Water Treatment Plant settling basins are drained to the clarifiers that are adjacent to the WWRB. Clarifiers Nos. 1 and 2 were constructed at the same time as the WWRB. Sludge is discharged from these clarifiers to drying lagoons using a sludge pumping station. The clarifiers also serve as redundant waste wash water retention volume during normal plant operations. The WWRB, Clarifier Nos. 1 and 2, and the sludge pumping station all require improvement. The scope of

this construction Contract No. 1803823 involves:

1. Demolish existing clarifiers and sludge pumping station
2. Construct new cast-in-place reinforced concrete waste wash water retention basin
3. Construct new cast-in-place reinforced concrete sludge pumping station equipped with new pump lifting mechanisms
4. Install new diversion gate structures between sludge drying lagoons
5. Install new junction structures between existing and new waste wash water retention basins
6. Install new yard lighting around the WWRB and clarifiers

JUSTIFICATION

The existing WWRB and clarifiers have noticeable deteriorating concrete and walls that have permanently deflected. There is also concrete deterioration in the sludge pumping station as well as difficulties with maintenance and operation of the existing pumps. For example, the existing pumps are not equipped with permanent lifting mechanisms. A truck with a crane has to be mobilized to the plant to pull an existing pump when maintenance or repairs are needed. The new sludge pumping units will be equipped with permanent lifting mechanisms so that pumps can be pulled by plant staff without mobilizing a specialty crew to perform these types of tasks. As a result, GLWA retained an engineering consultant under GLWA Contract No. CS-171 "Raw Sludge Clarifiers and Raw Sludge Pumping Station Improvements" to design improvements. Implementation of these improvements under this proposed Contract No. 1803823 will replace deteriorating structures and equipment with new that are designed to optimize maintenance and operation of an essential process function.

FINANCIAL PLAN IMPACT

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

Funding Source: Water Construction Bond

Cost Center: Water Engineering

Expense Type: Construction (5519-882111.000-616900-111007)

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

Fiscal Year

FY 2020 Budget	\$ 4,450,000.00
FY 2021 Budget	4,450,000.00
Financial Plan Estimate	\$ 8,900,000.00

Proposed Contract Award	<u>7,056,735.00</u>
Positive Estimating Variance	\$ 1,843,265.00

A budget amendment will adjust the positive estimating variance to Capital Reverses.

SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT

This project is the improvement of the raw sludge clarifiers and pumping at Lake Huron Water Treatment plant. Cost savings are not determinable at the time of this award.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on April 11, 2019. 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.