Legislation Details (With Text)

File #:	2023-093	**Version:**	1	**Name:**	
Type:	Resolution			**Status:**	Passed
File created:	2/27/2023			**In control:**	Board of Directors
On agenda:	3/22/2023			**Final action:**	3/22/2023
Title:	Contract No. 2202790 Water Resource Recovery Facility (WRRF) Improvements to the Sludge Feed system for Solids Processing CIP #213006 / BCE Score: 76.60				
Sponsors:	Navid Mehram				
Indexes:	Wastewater Operations				
Code sections:					
Attachments:	1. 2202790.VendorResponseFollow-up, 2. 2202790.ProcurementBoardReport-RFP, 3. 2202790.CostTabulation				

Date	Ver.	Action By	Action	Result
3/22/2023	1	Board of Directors	Approved	Pass
3/8/2023	1	Operations and Resources Committee	Recommended for Approval	Pass

Contract No. 2202790
Water Resource Recovery Facility (WRRF) Improvements to the Sludge Feed system for Solids Processing
CIP #213006 / BCE Score: 76.60

Agenda of: March 22, 2023
Item No.: **2023-093**
Amount: $4,346,982.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.
Chief Executive Officer
Great Lakes Water Authority

DATE: February 27, 2023

RE: **Contract No. 2202790**
Water Resource Recovery Facility (WRRF) Improvements to the Sludge Feed system for Solids Processing
Vendor: CDM Smith Michigan, Inc.

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. 2202790, "Water Resource Recovery Facility (WRRF) Improvements to the Sludge Feed System for Solids Processing" with CDM Smith Michigan, Inc., at a cost not to exceed $4,346,982.00 for a duration of 1,255 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The existing sludge feed system in Complex A at the WRRF pumps sludge from the sludge storage tanks (SSTs) to Dewatering Complex II (CII Dewatering), where ultimately the sludge is dewatered and then incinerated, and also pumps sludge from the SSTs across the street to the Biosolids Dryer Facility (BDF), where the sludge is dewatered and ultimately dried and utilized as a class A fertilizer. The piping and pumping systems that feed the Dewatering Complex II and the BDF are approximately 40 years old and unable to meet the operational demand of the WRRF solids system. The pumps and piping in many cases of operations are too large, causing GLWA Operations to try and restrict the flow to avoid over feeding the BDF or CII Dewatering. This mechanical restriction is causing excessive wear on system piping, system valves and the pumps, resulting in frequent failures and constant maintenance of the system in order to keep it up and running. This system is the only system that allows GLWA to process all solids received at the plant, and failure of this system jeopardizes GLWA's ability to meet our National Pollutant Discharge Elimination System (NPDES) Permit. The SSTs also require piping and means of flushing to ensure these tanks can be cleaned and continue to operate without clogging the suction piping. The current configuration includes dedicated piping for each tank, so there is no redundancy in the event of a failure of piping, valves, or pumps.

JUSTIFICATION

To ensure the long-term viability of this system, and compliance with our NPDES permit, the redesign of the sludge feed system is necessary to meet the current operational demand of the WRRF. This will result in an arrangement of pumps of varying sizes to ensure that the WRRF demand for sludge pumping can be met through all flows to the plant. Each solids processing facility will have a minimum of 2 dedicated duty pumps. It will also result in establishment of a proper loop and smaller sludge feed piping to ensure the system is right-sized to meet the demands of the Complex I and II Dewatering and BDF; and of proper design to avoid unnecessary wear on the system to avoid premature failures.

FINANCIAL PLAN IMPACT

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

Funding Source: Sewer Construction Fund

Cost Center: Wastewater

Expense Type: Design (5421-892211.000-617950-213006)

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

Fiscal Year	
FY 2023 Plan	$137,000.00
FY 2024 Plan	1,000,000.00
FY 2025 Plan	363,000.00
FY 2026 Plan	156,000.00
FY 2027 Plan	215,000.00
FY 2028 Plan	189,000.00
Financial Plan Estimate	$2,060,000.00
Proposed Contract Award	4,346,982.00
Estimating Variance	($2,286,982.00)

The award of this contract creates a negative estimating variance of $2,286,982.00. This variance will be funded from capital reserves. Please note that the amounts above, as per the Draft #2 FY2024-2028 CIP, have $2,060,000.00 budgeted for CIP No. 213006 Design/Engineering Phase.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on March 8, 2023. 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.