Great Lakes Water Authority

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Legislation Text

File #: 2022-168, Version: 1

Contract No. 2101610

Magnetic Flow Meter Replacement for Circular Primary Clarifiers

Vendor: Rotor Electric Company of Michigan, LLC

Agenda of: May 25, 2022

Item No.: 2022-168

Amount: \$1,495,200.00

TO: The Honorable

Board of Directors

Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.

Interim Chief Executive Officer Great Lakes Water Authority

DATE: April 29, 2022

RE: Contract No. 2101610

Magnetic Flow Meter Replacement for Circular Primary Clarifiers

Vendor: Rotor Electric Company of Michigan, LLC

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 Interim Chief Executive Officer (ICEO) to enter into Contract No. 2101610, "Magnetic Flow Meter Replacement for Circular Primary Clarifiers" with Rotor Electric Company of Michigan, LLC, at a cost not to exceed \$1,495,200.00 for a duration of 547 days; and authorizes the ICEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

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The Water Resource Recovery Facility (WRRF) is required to provide Primary Treatment to meet effluent limits required by its National Pollutant Discharge Elimination System (NPDES) permit. The facility achieves this through 12 rectangular and 6 circular sedimentation tanks.

The goal of primary treatment is to efficiently reduce the loading of settleable solids, total phosphorus, and Biological Oxygen Demand (BOD), the amount of oxygen required by the microorganism to decompose all the organic matter that is present in the wastewater, on the secondary treatment system.

The operations team requires accurate flow meter data to operate the Primary treatment process and balance the flow between the circular tanks. Each circular sedimentation tank has an independent flow meter that provides information on the amount of flow the tank is treating. The existing meters were installed in the early 2000s and have exceeded their useful life. The meters are either out of service or are providing inaccurate readings. The primary contributor to units failing is the inability to remove or clean the electrodes.

JUSTIFICATION

Operating without accurate meter reading increases the risk of uneven loading of tanks that can cause submerging of the effluent weirs, and the increased likelihood of a violation during wet weather events. This project includes the replacement of flow meters for the six circular sedimentation tanks providing operations with flow data for each tank so informed decisions can be made by the team. Additionally, the meters specified for this project will have removable electrodes that allow for cleaning and replacement of the electrodes themselves providing for more reliability and sustainable meter operations.

FINANCIAL PLAN IMPACT

Summary: The replacement of these magnetic flow meters was not anticipated during the development of the Capital Outlay budget and exceeds the budget for Flow Measuring and Meters. Individual projects budgeted in the Capital Outlay are subject to change based on criticality and condition assessment of assets on an ongoing basis. These changes are anticipated as changes are made under the Scheduled Replacement Program (SRP). A budget amendment is anticipated drawing first from other projects that may be changed and finally from the Use of Reserves.

Funding Source: Improvement and Extension Fund (I&E)

Cost Center: Primary Processing (892223)

Expense Type: Capital Outlay (901100)

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

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Fiscal Year	<u>Amount</u>
FY 2022 Budget (Prorated)	\$82,792.00
FY 2023 Budget	562,500.00
FY 2024 Financial Plan (Prorated)	61,042.00
Total Financial Plan Forecast	706,334.00
Proposed Contract Amount	1,495,200.00
Forecast Variance (positive/ (negative))	(\$788,866.00)

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on May 11, 2022. 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.