Legislation Details (With Text)

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Type:	Resolution			**Status:**	Passed
File created:	1/30/2024			**In control:**	Board of Directors
On agenda:	2/28/2024			**Final action:**	2/28/2024
Title:	Contract No. 2303968 96-Inch Water Transmission Main Relocation Project - 84-Inch Triple Offset Ball Valve Material Procurement CIP #122004 / BCE Score: 77.5				
Sponsors:	Cheryl Porter				
Indexes:	Water Operations				
Code sections:					
Attachments:	1. 2303968 Procurement Board Report				

Date	Ver.	Action By	Action	Result
2/28/2024	1	Board of Directors	Approved	Pass
2/14/2024	1	Operations and Resources Committee	Recommended for Approval	Pass

Contract No. 2303968
96-Inch Water Transmission Main Relocation Project - 84-Inch Triple Offset Ball Valve Material Procurement
CIP #122004 / BCE Score: 77.5

Agenda of: February 28, 2024
Item No.: **2024-038**
Amount: $3,240,588.46

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: January 26, 2024

RE: **Contract No. 2303968**
96-Inch Water Transmission Main Relocation Project - 84-Inch Triple Offset Ball Valve Material Procurement
Vendor: Cascade Consultants, 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. 2303968, "96-Inch Water Transmission Main Relocation Project - 84-Inch Triple Offset Ball Valve Material Procurement" with Cascade Consultants, LLC, at a cost not to exceed $3,240,588.46 for a duration of two (2) Years;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The existing 96-inch water transmission main (WTM) is part of GLWA's overall drinking water transmission main system that interconnects the Lake Huron Water Treatment Plant (LHWTP) with the Northeast and Springwells Water Treatment Plants (WTPs) through the North Service Center Pumping Station. The existing 96-inch WTM was constructed in the mid-1960s and was placed into service in December 1967. Part of the original construction of the 96-inch WTM was a section within Shelby Township that was installed within the influence of the G&H Industrial Landfill site.

The current relocation project consists of approximately 2.5 miles of 96-inch WTM currently located in the influence of the decommissioned G&H Industrial Landfill site, a listed U.S. Environmental Protection Agency Superfund site located in Shelby Township, Michigan. The construction has been sequenced to occur in three phases.

- **Phase I** referred to as the "Early Works Package - Avon Road Improvements" consisted of 2,200 lineal feet of new 96-inch WTM to be installed along Avon Road in Rochester Hills. Phase I of construction is currently in progress under Contract No. 2004825 and was completed August 2023.

- **Phase II** referred to as "Dequindre Road Package" includes installation of 7,985 lineal feet of 96-inch WTM installation along Dequindre Road between Hamlin Road and the Macomb Orchard Trail just north of 23 Mile Road.

- **Phase III** scope of work will include 2,900 lineal feet of 96-inch WTM installation along the Macomb Orchard Trail between Dequindre Road and 24 Mile Road. Phase III will include the system isolation, final connections near the Rochester Booster Station and the intersection of Dequindre/Hamlin Road, and the abandonment of existing WTM.

Once all three phases are complete, the relocated 96-inch WTM will be connected to GLWA's existing WTM system between North Service Center and Rochester Booster Station. Upon placing the new section of 96-inch WTM into service, the existing WTM within the influence of the decommissioned G&H Industrial Landfill site will be decommissioned and abandoned in place.

GLWA is pre-purchasing two (2) 84-inch Triple Offset Ball Valves for Phase 3 of the 96-inch WTM Relocation Project due to extended lead times. If GLWA included these valves within the Phase 3 - Request for Bid (RFB) documents, the overall project schedule could extend 12-18 months. The

GLWA project team is currently targeting project completion by Spring of 2027 and has communicated this milestone with all the project stakeholders.

JUSTIFICATION

GLWA water engineering is in the process of standardizing the components within the distribution system for continuity between installation, operations, and maintenance. Triple offset ball valves have been procured on other water transmission main projects at the request of field services due to the effectiveness and maintenance requirements associated with the product. Unlike a gate valve, these valves require little to no maintenance and require less space for installation.

GLWA considered alternate valve designs for the 96-inch WTM relocation project, including gate valves and butterfly valves.

- Triple offset valves were chosen over gate valves because gate valves are heavy, have a large footprint, and have greater power requirements than the triple offset ball valves. In addition, the gate valve would have to be removed during maintenance, or the valve vault size would have to be larger to allow for the removal of the bonnet and the stem.
- Compared to the triple offset valves, the butterfly valves have a history of poor leakage performance which would not allow for complete isolation of water from sections of the transmission main that are being repaired, replaced, or maintained. In addition, butterfly valves are not full port valves and do not allow for passage of certain cleaning or inspection devices.

Through review and analysis, GLWA and its consultant determined there is only one manufacturer that produces a triple offset ball valve. Therefore, this is a specialized procurement.

FINANCIAL PLAN IMPACT

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

Funding Source: Water Construction Fund

Cost Center: Water Field Engineering

Expense Type: Construction (5519-882411.000-617955-122004)

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

Fiscal Year	Amount
FY 2025 Plan	$ 596,000.00
FY 2026 Plan	1,202,000.00
FY 2027 Plan	1,202,000.00

Financial Plan Estimate	$ 3,000,000.00
Proposed Contract Award	3,240,588.46
Estimating Variance	$ (240,588.46)

The award of this contract provides a negative variance of $240,588.46. A budget amendment will be processed to transfer funds from capital reserves. The CIP financial plan is per the FY2025 - FY2029 CIP Plan Draft 2.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on February 14, 2024. 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.