



Legislation Text

File #: 2021-381, Version: 1

Proposed Amendment No. 1

Contract No. 1900741

Professional Engineering Services for the 96-Inch Water Transmission Main Relocation Project

CIP# 122004 / BCE 65.2

Agenda of: October 27, 2021

Item No.: **2021-381**

Amount:	Original Contract	\$26,634,516.37
	Proposed Amendment No. 1	4,875,570.50
	Total Revised Contract	\$31,510,086.87

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: October 6, 2021

RE: Proposed Amendment No. 1

Contract No. 1900741

Professional Engineering Services for the 96-Inch Water Transmission Main Relocation Project

Vendor: Jacobs Consultants, Inc.

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 Interim Chief Executive Officer (ICEO) to **enter into Contract No. 1900741 Proposed Amendment No. 1 "Professional Engineering Services for the 96-Inch Water Transmission Main" with Jacobs Consultants, Inc., at an increased cost of \$4,875,570.50 for a total cost not to exceed \$31,510,086.87 with no increase in duration for a total duration of 2,700 Days**; and authorizes the ICEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

Contract No. 1900741 is a professional engineering services contract related to relocating approximately 2.5 miles of 96-inch diameter water transmission main. Relocation of this main will generally involve constructing 2.5 miles of new 96-inch diameter main, installing new isolation valve stations equipped with bypasses, decommissioning the old 96-inch main located between Hamlin Road and 24 Mile Road, and rehabilitating pipeline appurtenances generally between 20 Mile and 32 Mile Roads. The construction work will be performed under a separate construction manager at-risk (CMAR) contract. The professional engineering services consultant retained under this proposed Contract No. 1900741 will design the entire project and administer the associated CMAR contract necessary to relocate the 96-inch transmission main in its entirety.

The scope of this engineering services contract is based on the use of an existing valve to isolate portions of the 96-inch transmission main to facilitate tie-in of new main to existing. During the course of the preliminary design, however, it was deemed too risky to rely on this single valve to isolate the existing main during construction. Although this existing isolation valve has been used in the past to varying degrees, it has never been completely closed for an extended period of time. As such, there is a probability that it could (1) fail closed and not open again, (2) fail to open fully again and return to normal service, or (3) break due to upstream sustained pressures during the shutdown. The consequences associated with these probable occurrences include significant water pressure drops, boiled water notices, and even total loss of water service to some member partners for an extended period of time. Therefore, the project needs to be designed so that the entire 96-inch transmission main is taken out of service to facilitate tie-ins. This, in turn, requires that temporary water service be provided to member partners fed off the 96-inch transmission main between the Imlay Pump Station and Romeo. Several temporary water service alternatives were evaluated, including (1) delivering bulk water, (2) groundwater treatment, and (3) parallel mains. The first two alternatives carried high costs along with their own risks in either supply disruptions or water quality concerns. Also, delivering bulk water and groundwater treatment provided no long-term benefits to the GLWA water system. The third alternative however, parallel mains, would provide the most reliable temporary water service during construction, as well as represent a long-term redundant, backup water supply to member partners fed from the 96-inch transmission main. Another benefit of the redundant parallel water main is that the existing 96-inch transmission main may be temporarily taken out of service in the future to (1) conduct condition assessments, (2) replace air release valves and blowoff valves, and (3) replace sections of pipe found to be in poor condition. The new parallel main would be located between the Imlay Pump Station and Almont. Addition of the new parallel would require additional engineering services related to its design, construction administration and resident project representation services.

The start work date for this project was June 15, 2020. The final completion date is November 6, 2027.

JUSTIFICATION

Expanding the scope of engineering services to include the design of the new parallel water main will eliminate several risks during construction as well as provide long-term benefits to many member partners who receive their water supply through the 96-inch transmission main.

PROJECT MANAGEMENT STATUS

Original Contract Time 2,700 days (6/15/2020 - 11/6/2027)

Proposed Amendment No. 1 0 days

Total Contract Time 2,700 days (6/15/2020 - 11/6/2027)

PROJECT ESTIMATE

Original Contract \$26,634,516.37

Proposed Amendment No. 1 4,875,570.50

Total Revised Contract \$31,510,086.87

FINANCIAL PLAN IMPACT

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

Funding Source: Water Construction Fund

Cost Center: Field Engineering

Expense Type: Construction (5519-882411.000-617950-122004)

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

Original Contract Price \$26,634,516.37

Proposed Amendment No. 1 4,875,570.50

New Contract Total 31,510,086.87

Amended Financial Plan Estimate 28,321,000.00

Negative Estimating Variance (\$3,189,086.87)

The award of this amendment to the vendor creates a negative estimating variance of \$3,189,086.87. This variance will be funded from capital reserves.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on October 13, 2021. 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.