



Legislation Text

File #: 2020-352, Version: 1

Contract No. 2001488

7 Mile/Nevada Transmission Main Renewal Project

CIP# 122017 / BCE Score: 84.2

Agenda of: October 28, 2020

Item No.: **2020-352**

Amount: **\$12,943,129.29**

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: October 7, 2020

RE: **Contract No. 2001488**
7 Mile/Nevada Transmission Main Renewal Project
Vendor: Pullman SST, 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 Chief Executive Officer (CEO) to **enter into Contract No. 2001488 “7 Mile/ Nevada Transmission Main Renewal Project” with Pullman SST, Inc., at a cost not to exceed \$12,943,129.29 for a duration of 2,861 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

GLWA monitors regional water system demand versus installed capacity as part of its water master planning process. A 2015 Water Master Plan Update indicated that the regional system has significant excess capacity for water treatment compared to projected water demand. To address this

imbalance, the Water Master Plan Update recommended a program to reduce the regional treatment capacity to better align it with future system water demands.

The above-referenced 2015 Water Master Plan Update for the regional drinking water system recommended that the Northeast Water Treatment Plant (WTP) be repurposed, which means that low-lift and treatment facilities at Northeast WTP would be decommissioned, and a mix of new/existing water transmission systems would be used to deliver maximum day demands to the existing reservoirs and high lift pumps at the Northeast site.

The existing Northeast WTP maximum day demands are approximately 160 million gallons per day (MGD). GLWA recognized early in the planning process that Water Works Park WTP has only about 120 MGD of excess capacity. Therefore, an additional 40 MGD is needed from another treatment plant to meet the 160 MGD maximum day demand at the Northeast site. The Springwells WTP will be able to provide the additional 40 MGD to the Northeast site through the existing 48-inch transmission main along Clarita/Grixdale/7 Mile/Nevada ("7 Mile/Nevada"). Due to the increased importance of the 7 Mile/Nevada transmission system in delivering finished water to the Northeast site, and the fact that this pipeline was constructed almost 100 years ago, GLWA has elected to perform pipeline renewal of the 7 Mile/Nevada transmission system. The 7 Mile/Nevada transmission system is located in the northern part of the City of Detroit and is approximately 7.4 miles in length. Pressures on the transmission system range from 50 to 70 pounds per square inch (psi). Limited record drawing information indicates the pipeline was constructed generally between 1920 and 1930 and is constructed of a mix of:

- Approximately 2.9 miles of longitudinal welded steel pipe with riveted joints along the 7 Mile/Nevada transmission from the intersection of Washburn/Clarita to the intersection of Grixdale/Woodward.
- Approximately 4.5 miles of lock bar steel pipe along the 7 Mile/Nevada transmission from the intersection of Grixdale/Woodward to the intersection of Concord/Nevada.

JUSTIFICATION

The proposed progressive design-build contract is needed to renew the 7 Mile and Nevada transmission system, which is almost 100 years old. The 7 Mile and Nevada transmission also takes on increased importance as a key transmission main that would be used to deliver finished water to the Northeast site after treatment is decommissioned at the Northeast WTP.

Tasks 1 through 5 comprise the base scope of work for the pipeline renewal project that includes project management, pre-design inspection, and pipeline renewal design work. Tasks 6 through 8 are allowance tasks that were included in the RFP scope of work and Tasks 9 and 10 are also allowance tasks that were developed as part of the procurement negotiation process.

The Task 9 provisional allowance was not included in the RFP scope of work, but certain sub-tasks within the base scope of work may not be needed depending on field conditions. As such, these sub-

tasks were moved to a Task 9 provisional allowance so that GLWA could better control costs on the project. The Task 10 Dewatering, Debris Removal, and Cleaning Allowance was not included in the RFP scope of work, but discussions with the design-build contractor revealed significant potential pipeline maintenance activities such as pipeline cleaning that might be needed in order to facilitate inspection of the pipeline. As such, Task 10 was added to the scope of work as an allowance in order to mitigate unforeseen field conditions that could be associated with performing inspection work on a 100-year old pipe.

The allowance tasks are described as follows:

- Task 6: Community Neighborhood/Stakeholder Outreach Allowance

This task includes an allowance (not to be used without GLWA authorization) to provide community/neighborhood/stakeholder meetings and outreach with the direction and guidance from the City of Detroit for the proposed construction project.

- Task 7: Subsurface Utilities Allowance

This task includes an allowance (not to be used without GLWA authorization) to provide field survey and exploration of existing utilities to avoid utility conflicts (and costly change orders) during the construction stage of the project.

- Task 8: Pre-Design Inspection Allowance

This task includes an allowance (not to be used without GLWA authorization) to provide construction assistance to provide isolation to the transmission main during the inspection task (task 3) of the project in case the existing isolation valves do not function properly.

- Task 9: Provisionary Allowance

This task was developed during the negotiation phase of project procurement and includes an allowance (not to be used without GLWA authorization) to provide vault/main relocation design, soil borings, and robotic inspection of the pipeline. These activities were originally part of the base scope of work in Tasks 3 and 4, but during negotiations, it was noted that these activities would only be necessary under certain field conditions (e.g. - soil borings required for un-anticipated main relocation, internal robotic inspection needed to supplement above grade inspection of the pipeline, etc.). As such, the budget and scope of work for these activities was moved to this provisional allowance and would only be used as needed.

- Task 10: Dewatering, Debris Removal, and Cleaning Allowance

This task was developed during the negotiation phase of project procurement and includes an allowance (not to be used without GLWA authorization) to provide pipeline maintenance to facilitate inspection of the pipeline. The allowance includes activities such as confined space entries, pipeline/vault dewatering, standby rescue operations, pipeline cleaning and debris

removal, and lock bar joint removal. This task allowance is needed due to the unknown condition of the pipeline and will be used, as needed, to manage the uncertainty associated with working on a pipeline that has no documented inspection records and is almost 100 years old.

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 (5519-882411.000-616900-122017)

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

Fiscal Year

FY 2021 Plan	\$1,720,000.00
FY 2022 Plan	3,436,000.00
FY 2023 Plan	9,097,000.00
FY 2024 Plan	7,442,000.00
FY 2025 Plan	7,408,000.00
FY 2026+ Plan	<u>30,784,000.00</u>
Financial Plan Estimate	\$59,887,000.00
Proposed Contract Award	<u>12,943,129.29</u>
Balance Reserved for Construction	\$46,943,870.71

SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT

The cost savings are not determinable at the time of award.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on October 15, 2020. 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.