



Legislation Text

File #: 2021-164, Version: 1

Contract No. 2003102

Garland, Hurlbut, and Bewick Water Transmission System Rehabilitation (Northeast Transmission Phase 3)

CIP# 122003/122018 / BCE Score: 94.6

Agenda of: May 26, 2021

Item No.: **2021-164**

Amount: \$12,947,775.43

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: May 4, 2021

RE: **Contract No. 2003102**
Garland, Hurlbut, and Bewick Water Transmission System
Rehabilitation (Northeast Transmission Phase 3)
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. 2003102 “Garland, Hurlbut, and Bewick Water Transmission System Rehabilitation (Northeast Transmission Phase 3)” with Pullman SST, Inc., at a cost not to exceed \$12,947,775.43 for a duration of 2,418 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

Historically, the GLWA has been periodically studying the regional system demands and capacity as part of its water master and capital improvement planning processes. A 2015 Water Master Plan update indicated that the regional system has significant excess capacity for water treatment

compared to current and projected water demands. 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 (NEWTP) be repurposed, which meant that low-lift and treatment facilities at the NEWTP would be decommissioned and a mix of new and existing water transmission system would be used to deliver maximum day demands to the existing reservoirs and high lift pumps at the Northeast site.

The existing NEWTP maximum day demands are approximately 160 million gallons per day (MGD). GLWA recognized early in the planning process that Water Works Park Water Treatment Plant (WTP) has only about 120 MGD of excess capacity given a firm WTP capacity rating of 200 MGD and a direct service area demand of 80 MGD in the City of Detroit. In order to maintain Water Works Park WTP production to below firm capacity, finished water would be supplied to the Northeast site from the Springwells Water Treatment Plant (SPWTP). The SPWTP has a firm production capacity of 515 MGD with current maximum day demands of approximately 240 MGD, which means the SPWTP has excess production capacity of approximately 275 MGD. A combination of new and existing transmission mains between Water Works Park WTP, SPWTP and the Northeast site would be used to supply up to 160 MGD (maximum day demands) of finished water to the Northeast site.

The Garland-Bewick-Hurlbut (GBH) transmission system located south of I-94 is a key component of the transmission system that will deliver between 50 and 120 MGD of finished water from the Water Works Park WTP to the Northeast site. The GBH transmission system improvements will consist of the following items:

- Install approximately 6,000 feet of structural lining inside the existing 42-inch, cast iron transmission main along Hurlbut Avenue from Jefferson Avenue to Sylvester Avenue. This transmission main was constructed between 1901 and 1902.
- Install approximately 3,200 feet of structural lining inside the existing 48-inch, cast iron transmission main along Bewick Avenue from Jefferson Avenue to Charlevoix Avenue. This transmission main was constructed between 1908 and 1943.
- Install approximately 7,700 feet of structural lining inside the existing 48-inch, cast iron transmission main along Bewick Avenue from Jefferson Avenue to mid-block between Canfield Avenue and Warren Avenue. This transmission main was constructed between 1908 and 1911.
- Install approximately 12,000 feet of structural lining inside the existing 48-inch, cast iron transmission main along Garland Avenue from Jefferson Avenue to the I-94 south service

drive. This transmission main was constructed between 1908 and 1911.

- Construct approximately 6,000 feet of new 60-inch and 69-inch transmission main (material yet to be determined) along Hurlbut Avenue from Sylvester Avenue to I-94.

JUSTIFICATION

This proposed progressive design-build contract is needed to renew the Garland, Bewick and Hurlbut transmission system, which is almost 100 years old. The Garland, Bewick and Hurlbut transmission system 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 Water Treatment Plant, and as a means to improve system redundancy between the Water Works Park, Springwells and Northeast facilities.

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 (5519-882411.000-616900-122003)

Construction (5519-882411.000-616900-122018)

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

<u>Fiscal Year</u>	<u>122003</u>	<u>122018</u>	<u>Total</u>
FY 2021 Plan	\$ 638,000.00	\$1,498,000.00	\$ 2,136,000.00
FY 2022 Plan	1,093,000.00	1,498,000.00	2,591,000.00
FY 2023 Plan	2,888,000.00	1,498,000.00	4,386,000.00
FY 2024 Plan	2,166,000.00	1,498,000.00	3,664,000.00
FY 2025 Plan	2,166,000.00	3,965,000.00	6,131,000.00
FY 2026 Plan	5,026,000.00	3,965,000.00	8,991,000.00
FY 2027+ Plan	<u>11,530,000.00</u>	<u>39,723,000.00</u>	<u>51,253,000.00</u>
Financial Plan Estimate	\$25,507,000.00	\$53,645,000.00	\$79,152,000.00
Proposed Contract Award	<u>\$ 4,483,694.22</u>	<u>\$ 8,464,081.21</u>	<u>\$12,947,775.43</u>
Bal. reserved for construction	\$21,023,305.78	\$45,180,918.79	\$66,204,224.57

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 May 12, 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.