



## Legislation Details (With Text)

**File #:** 2018-894      **Version:** 1      **Name:**  
**Type:** Resolution      **Status:** Passed  
**File created:** 9/6/2018      **In control:** Board of Directors  
**On agenda:** 9/26/2018      **Final action:** 9/26/2018  
**Title:** Contract No. GLWA-CS-152  
Proposed Change Order 1  
Route Alternatives Analysis and Preliminary Design for the Water Works Park to Northeast  
Transmission Main  
**Sponsors:** Cheryl Porter  
**Indexes:** Water Operations  
**Code sections:**  
**Attachments:**

Date	Ver.	Action By	Action	Result
9/26/2018	1	Board of Directors	Approved	Pass

**Contract No. GLWA-CS-152**  
**Proposed Change Order 1**  
**Route Alternatives Analysis and Preliminary Design for the Water Works Park to Northeast**  
**Transmission Main**

Agenda of: September 26, 2018  
Item No.: **2018-894**  
Amount: \$1,634,378.00

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** September 6, 2018

**RE: Proposed Change Order No. 1**  
**Contract No. GLWA-CS-152**  
**Route Alternatives Analysis and Preliminary Design for the Water Works Park to**  
**Northeast Transmission Main**  
**Vendor: Jacobs Engineering**

## **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. GLWA-CS-152 Change Order No. 1 “Route Alternatives Analysis and Preliminary Design for the Water Works Park to Northeast Transmission Main” with Jacobs Engineering, a cost increase of \$1,634,378.00 for a total cost not to exceed \$4,447,594.63 and a contract extension of 11 months for a total contract duration of 1 year and 11 months;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

GLWA-CS-152 was initiated on September 11, 2017 for a period of twelve (12) months expiring September 10, 2018. The purpose of the ongoing Route Alternatives Analysis and Preliminary Design for the Water Works Park to Northeast Transmission Main project is to advance the preliminary design of a new finished water transmission main from the Water Works Park Water Treatment Plant (WTP) to the Northeast WTP as recommended in the 2015 Water Master Plan Update. The new water transmission main is proposed to be approximately 81 inches in diameter and will traverse approximately seven (7) miles through an urbanized setting on the east side of Detroit. The new water transmission main was identified as a needed capital improvement project as part of the planned decommissioning of water treatment at the Northeast WTP and repurposing the facility into a reservoir and pump station. GLWA desires to repurpose the Northeast WTP as soon as possible due to the reduction in water demand within the GLWA transmission system service area to reduce associated expenditures related to capital upgrades and ongoing water treatment operations/maintenance costs at the Northeast WTP.

Recent developments relating to Drinking Water Revolving Fund (DWRF) loan funding and additional field testing and stakeholder coordination to confirm the preferred route have impacted the schedule and scope of work for the CS-152 project as follows:

1. In April 2018, GLWA submitted a DWRF Project Plan application for the new finished water pipeline project in an effort to secure low interest loans from the DWRF through the Michigan Department of Environmental Quality (MDEQ). The MDEQ officially notified GLWA at the August 22, 2018 Project Priority List Public Hearing that new finished water transmission project was eligible for up to \$133,725,000 in DWRF loans for the October 1 to September 30 fiscal year 2019. The DWRF loan schedule requires that a construction contract for any portion of the new transmission pipeline project be awarded by the GLWA Board by July 5, 2019 in order to secure the loan funding for FY2019 and future fiscal years. GLWA is currently in the process of completing the route study and preliminary design for the preferred route alternative. Construction award of the full pipeline project by the July 5, 2019 deadline is not possible for the full project as the preliminary design is not yet completed. However, the MDEQ has indicated that if GLWA were to award a construction contract for a smaller portion of the new transmission main project by the July 5, 2019 award deadline, GLWA could come back to DWRF for a second and/or third loan in a future year(s) to complete the remainder of the project to secure the loan funding. If additional loans are sought by GLWA within the three years after the initial loan, they would get “super-priority” and near-assurance of funding for the second and/or third loan for future years. Additional funds and a schedule extension are sought for the CS-152 project to meet the DWRF award deadline to secure loan funds for FY2019 and future years.

2. The CS-152 Route Study and Preliminary Design team has performed extensive route evaluation to identify the preferred route for the proposed transmission main. On July 24, 2018, a preliminary route selection workshop provided conditional selection of a route for the proposed pipeline. Only a conditional selection was selected at the workshop as there are two key issues that may affect the preferred route's estimated cost or feasibility. These two issues include property acquisition and environmental contamination concerns. Additional funds are sought for the CS-152 project to perform additional soils investigation to confirm that there are not major contamination issues along the preferred pipeline route. An extension to the contract time is sought to confirm property acquisition requirements for the preferred route.

### JUSTIFICATION

To meet the DWRP funding schedule as required by the MDEQ, GLWA Water Engineering is proposing to expedite construction of a smaller portion of the overall project using a Design-Build project delivery. The expedited portion of the overall project includes a flow control station located at the Northeast WTP site, which would control flows being delivered from the Water Works Park WTP to the Northeast WTP through the new transmission pipeline. To meet the DWRP funding schedule, GLWA Water Engineering is proposing the additional work for the CS-152 project as follows:

- DWRP Project Plan assistance
- Prepare design-build bidding documents for the Northeast flow control station
- Provide design-build oversight of the design and construction of the Northeast flow control station

To provide final selection of the route for the new transmission main, GLWA Water Engineering is proposing to perform additional stakeholder coordination and additional contamination testing along the preferred route. Specific work efforts to provide final route selection include the following:

- Conduct contamination investigation and related evaluation along the preferred route to identify risks associated with potentially contaminated soils and to identify any necessary mitigation measures.
- Revise pipeline route study based on contamination investigation findings.
- Conduct additional stakeholder coordination relating to property and easement acquisition.

The table below summarizes the original project budget and additional work effort required to meet the desired outcomes for the CS-152 project.

Task No.	Task Description	Original Budget	Requested Funds	Requested Amended Contract	Total Amount
1	Project Management	\$264,299.26	\$59,303.00		\$323,602.26
2	Route Alternatives Evaluation	\$822,070.78	\$0.00		\$822,070.78
3	Preliminary Design for Preferred Route Alternative	\$990,782.54	\$0.00		\$990,782.54
4	Public Engagement and Outreach	\$265,983.24	\$0.00		\$265,983.24
5	Field Survey/Exploration Allowance	\$222,310.80	\$0.00		\$222,310.80
6	Contingency and Operational Planning	\$247,770.01	\$0.00		\$247,770.01
7	DWRP Project Plan Assistance	\$0.00	\$57,500.00		\$57,500.00
8	Contamination/Soils Investigation and Evaluation	\$0.00	\$326,983.00		\$326,983.00

9	Prepare Design-Build Bidding Documents			
	for Northeast Flow Control Station	\$0.00	\$190,902.00	\$190,902.00
10	Provide Design-Build Oversight	\$0.00	\$999,690.00	\$999,690.00
<b>Total</b>		<b><u>\$2,813,216.63</u></b>	<b><u>\$1,634,378.00</u></b>	<b><u>\$4,447,594.63</u></b>

Given the above, an extension of contract duration from September 11, 2018 to July 31, 2020 is requested. This extension includes the completion of the preliminary design and issuance of bidding documents including technical requirements for a Design-Build procurement for a portion of the overall project by April 2019.

### **PROJECT MANAGEMENT STATUS**

Original Start Work Date: September 11, 2017  
Current Contract End Date: September 10, 2018  
Change Order 1 Contract End Date: July 31, 2020

### **PROJECT ESTIMATE**

Original Contract Price	\$ 2,813,216.63
Change Order No. 1	\$ 1,634,378.00
New Contract Total	\$ 4,447,594.63

### **FINANCIAL PLAN IMPACT**

**Summary:** Sufficient funds are provided in the financial plan for this proposed project change order.

**Funding Source:** Water Construction Bond

**Cost Center:** Water Engineering

**Expense Type:** Design/Study (5519-882111.000-617950-122003)

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

Fiscal Year

FY 2018 Budget	\$ 1,250,000.00
FY 2019 Budget	<u>1,250,000.00</u>
Financial Plan Estimate	\$ 2,500,000.00
Proposed Contract including Change Order	<u>4,447,594.63</u>

Negative Estimating Variance	\$(1,947,594.63)
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### **SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT**

This contract is for route alternative study and preliminary design of a transmission main from Water Works Park to Northeast Water Treatment Plant.

The CIP project is a design-build delivery method budgeted at \$127,500,000 with an estimated completion date through FY2025. The study phase, inclusive of the proposed change order to the vendor, creates a negative estimating variance of \$1,947,594.63. The negative estimating variance is to be funded from water capital reserves. Cost savings are not determinable at the time of this award.

Project estimate	\$ 2,500,000.00
Proposed award	<u>4,447,594.63</u>
Capital reserve adjustment	\$(1,947,594.63)

### **COMMITTEE REVIEW**

This item is being presented directly to the full Board of Directors for consideration.

### **SHARED SERVICES IMPACT**

This item does not impact the shared services agreement between GLWA and DWSD.