



## Legislation Text

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File #: 2019-107, Version: 1

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### Proposed Amendment No. 1

#### GLWA-CS-103

#### Professional Engineering Services for Springwells Water Treatment Plant Low and High Lift Pumping Station Improvements

CIP#/BCE Score: 114002/69.2

Agenda of: March 27, 2019

Item No.: **2019-107**

Amount:	Original Contract	\$ 9,935,926.00
	Proposed Amendment No. 1	1,184,934.00
	Total Revised Contract	\$11,120,860.00

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

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

**DATE:** March 6, 2019

**RE: Proposed Amendment No. 1**

**Contract No. GLWA-CS-103**

**Professional Engineering Services for Springwells Water Treatment Plant Low and High Lift Pumping Station Improvements**

**Vendor: CDM Smith**

### 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-103 Amendment No. 1 "Professional Engineering Services for Springwells Water Treatment Plant Low and High Lift Pumping Station Improvements" with CDM Smith, at an increased cost of \$1,184,934.00 for a total not to exceed amount of \$11,120,860.00 for a total contract length of 72 Months;** and authorizes the CEO to

take such other action as may be necessary to accomplish the intent of this vote.

### **BACKGROUND**

Contract CS-103 is a professional engineering services contract that includes study, design, bidding, construction administration, resident project representation, start-up, and O&M services related to major capital improvements at the Springwells Water Treatment Plant. The consultant providing services under GLWA-CS-103 is CDM Smith. The capital improvements include improvements to the existing low and high lift pumping stations, including complete replacement of the existing medium voltage electrical system supplying power to the pumping units. The base scope of services under CS-103 involves preparing one design to procure a single construction contract to build all of the improvements to the low and high-lift pumping station at Springwells, including the electrical related improvements. The study phase of CS-103 is now complete and GLWA staff now recommends that it is best to execute these improvements under two separate single-prime construction contracts. The first will involve replacing the existing medium voltage electrical switchgear with new along with other related electrical improvements. The second construction contract will involve all other base scope improvements such as pumps, motors, piping, valves, exterior doors, and exterior windows.

The additional fee for designing and administering the additional construction contract is \$411,535. In addition to preparing and administering two construction contracts, this proposed change order would include the following changes:

1. Add scope related to replacement of six (6) existing 84-inch gate valves necessary for isolation of the suction chambers of the high lift station.
2. Add funds to the Allowance to conduct underwater diver inspections of the low-lift pumping station to obtain more accurate design information.
3. Remove scope related to replacement of low lift pump suction isolation gates.
4. Reduce scope related to the High Lift Station Header Vault ventilation improvements.
5. Move a portion of the resident project representative budget to a new task for inspection needs of the electrical improvements contract, and
6. Add a Provisional Allowance for unforeseen conditions.

The associated costs for the above-changes are provided in the table below.

<b>Item No.</b>	<b>Change Description</b>	<b>Change Amount</b>
1	Add Accelerated 4.8 kV Switchgear Replacement	\$ 411,535.00
2	Add 24 kV Primary Transformer Replacement (3 each)	514,105.00
3	Add 84-inch Gate Valve Replacement (6 each)	141,156.00
4	Add Additional Funds to the Allowance for Inspection by Diving	100,000.00
5	Deduct for Removal of Low Lift Suction Gate Replacement	(166,544.00)
6	Deduct for Removal of Header Vault Ventilation Improvements	(65,318.00)
7	Add Provisional Allowance for Unforeseen Conditions	250,000.00
	Net Adds	\$1,416,796.00
	Net Deducts	(231,862.00)
	Overall Net Change	\$1,184,934.00

### **JUSTIFICATION**

The proposed items in this change order will require additional funds for professional engineering

services to accelerate the work, prepare separate construction and bid documents, administer a second construction contract, and add the scope for the 24 kV transformer and 84-inch gate valve replacement. The justification for this change is centered on safety, cost savings, and time savings. By accelerating the electrical equipment replacement, this work will be completed approximately 18 months sooner than under a single construction contract as included in the current scope of services. This will result in time savings in minimizing delays during construction associated with executing complicated construction sequencing under a single-source construction contract. (This change order will result in potential cost savings by mitigating costly contractor change orders during construction.) By replacing the existing transformers now, it will safeguard the financial investment being made into the switchgear and electric motors for the pumping units. Most importantly, this change will protect the safety of plant staff during normal operation and maintenance needed to keep the existing switchgear running. Public safety will also be protected by avoiding unexpected disruptions to plant service.

#### **PROJECT MANAGEMENT STATUS**

Original Contract Time	72 months
Proposed Amendment No. 1	N/A
New Contract Time	72 Months

#### **PROJECT ESTIMATE**

Original Contract Price	\$ 9,935,926.00
Proposed Amendment No.1	1,184,934.00
New Contract Total	\$ 11,120,860.00

#### **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 (5519-882111.000-617950-114003)

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

**Based on 2020-2024 CIP Preliminary Draft# 2:**

**Fiscal Year**

FY 2018 Budget	\$ 468,000.00
FY 2019 Budget	2,462,000.00
FY 2020 Budget	2,250,000.00
FY 2021 Budget	1,000,000.00
FY 2022 Budget	500,000.00
FY 2023 Budget	500,000.00
FY 2024 Budget	1,000,000.00
FY 2024 Budget	<u>2,686,000.00</u>
Financial Plan Estimate	\$10,866,000.00
Proposed Contract Award	<u>11,120,860.00</u>
Negative Estimating Variance	\$( 254,860.00)

Award of this proposed Amendment No. 1 to vendor creates a negative estimating variance of \$254,860.00. Variance to be funded by use of Capital Reserves.

### **COMMITTEE REVIEW**

This item was presented to the Operations and Resources Committee at its meeting on March 13, 2019. 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.