



## Legislation Text

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File #: 2019-180, Version: 1

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### **Proposed Change Order No. 3 GLWA-CS-108**

### **Professional Engineering Services for Automation Needs Assessment of Water Treatment Plants**

Agenda of: May 22, 2019

Item No.: **2019-180**

Amount:	Original Contract	\$1,395,944.25
	Change Order No. 1	0.00
	Change Order No. 2	357,225.00
	Proposed Change Order No. 3	0.00
	Total Revised Contract	\$1,753,169.25

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

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

**DATE:** May 1, 2019

**RE: Proposed Change Order No. 3**  
**Contract No. GLWA-CS-108**  
**Professional Engineering Services for Automation Needs Assessment of Water Treatment Plants**  
**Vendor: Arcadis**

### **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-108 Change Order No. 3 "Professional Engineering Services for Automation Needs Assessment of Water Treatment Plants" with Arcadis, at a cost not to exceed \$1,753,169.25 for an increased duration of eight (8) months for a total contract duration of 27 months;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

### **BACKGROUND**

The Great Lakes Water Authority (GLWA) owns and operates five water treatment facilities which provide water to nearly 4 million customers in southeastern Michigan. The Northeast (NE), Springwells (SPW), Southwest (SW), Lake Huron (LH), and Water Works Park (WWP) Water Treatment Plants (WTP) have a firm high service pumping capacity of 2,400 million gallons per day. Four of the five plants (NE, SPW, SW, and WWP) are conventional treatment facilities with the following process trains: rapid mix, coagulation, flocculation, sedimentation, granular media filtration, and disinfection. Lake Huron is the only facility which is operated as a “modified direct filtration” plant, which means the sedimentation basins are used as contact basins and do not require a minimum detention time of 4 hours. In addition, Water Works Park is the only plant which employs intermediate ozonation for primary disinfection control.

The supervisory control and data acquisition (SCADA) industry is constantly evolving as new technologies are introduced to the marketplace. Instruments and devices are becoming smarter, with more data available for use in SCADA systems. In addition, digital communications are becoming more commonplace for instruments. SCADA systems provide efficiency via improved communication and rapid distribution of information, along with improved efficiency of facility operations. Many utilities have reached critical decision points related to SCADA for which there are several reasons. First, many original installations of SCADA systems have either become obsolete or are legacy systems with limited support and functionality. Second, due to an aging workforce that has a vast amount of institutional knowledge, challenges exist in training a replacement workforce to maintain water industry operations. This results in difficult and expensive decisions for migration of old SCADA systems to newer ones. Third, as SCADA systems have become more accessible and merged into the IT systems of water municipalities, alarming and cybersecurity have become an increased area of focus. These challenges have resulted in added pressure on water utilities to stay at the leading edge of technology while balancing public health concerns.

### **JUSTIFICATION**

GLWA desires to fully leverage the benefits of SCADA and automation, including the implementation of future-proof systems, or systems that can leverage emerging trends and technologies. This change order will not affect the scope of work/specifications or cost for CS-108 as it is a time extension only. The intended time interval was not captured in Change Order No. 2 to give the vendor enough time to complete the project.

### **PROJECT MANAGEMENT STATUS**

Original Contract Time	7 Months
Change Order No. 1	4 Months
Change Order No. 2	8 Months
Proposed Change Order No. 3	8 Months
New Contract Time	27 Months

### **PROJECT ESTIMATE**

Original Contract Price	\$ 1,395,944.25
Change Order No. 1	0.00
Change Order No. 2	357,225.00
Proposed Change Order No. 3	0.00
New Contract Total	\$ 1,753,169.25

#### **FINANCIAL PLAN IMPACT**

This proposed change order is for extension of time only. Although the change order extends the project completion from ending in FY 2019 to ending FY 2020, there is no substantive financial impact. The amount of planned spend moving into FY 2020 is undeterminable at this time.

#### **COMMITTEE REVIEW**

This item was presented to the Operations and Resources Committee at its meeting on May 8, 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.