



## Legislation Details (With Text)

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**File created:** 7/29/2022      **In control:** Board of Directors

**On agenda:** 8/24/2022      **Final action:** 8/24/2022

**Title:** Contract No. 2201142  
Conveyance System Infrastructure Improvements: Sewer In-System Storage and Valve Remote Improvements  
CIP #260701 / BCE Score: 60.1

**Sponsors:** Cheryl Porter, Todd King

**Indexes:** Water Operations

**Code sections:**

**Attachments:** 1. 2201142 Procurement Report, 2. 2201142 Cost Tabulation, 3. 2201142 Vendor Response Follow-up, 4. Wastewater CIP Cost Allocation 081722

Date	Ver.	Action By	Action	Result
8/24/2022	1	Board of Directors	Approved	Pass
8/10/2022	1	Operations and Resources Committee	Recommended for Approval	Pass

### Contract No. 2201142

### Conveyance System Infrastructure Improvements: Sewer In-System Storage and Valve Remote Improvements

#### CIP #260701 / BCE Score: 60.1

Agenda of: August 24, 2022  
Item No.: **2022-341**  
Amount: \$15,943,539.92

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

**FROM:** Suzanne R. Coffey, P.E.  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** July 29, 2022

**RE:** **Contract No. 2201142**  
**Conveyance System Infrastructure Improvements: Sewer In-System Storage and Valve Remote Improvements**  
**Vendor: LGC Global, 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. 2201142 “Conveyance System Infrastructure Improvements: Sewer In-System Storage and Valve Remote Improvements” with LGC Global, Inc., at a cost not to exceed \$15,943,539.92 for a duration of 791 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

GLWA is responsible for the operation and maintenance of 16 In-System Storage Devices (ISDs) and 20 Valve Remote (VR) sites, and over 60 regulator/diversion sites. Each of these sites are critical to the operation and maintenance of GLWA’s wastewater network. Contract No. 2201142 includes improvements to 35 sites which includes the 16 ISD locations and 11 of the 20 VR sites, and rehabilitation to 8 regulator/diversion chamber sites. The ISD sites are comprised of inflatable dams that are naturally in a deflated state but can be inflated during times of elevated flow to utilize GLWA’s in-system storage and reduce CSOs. Typically, these devices are operated for smaller storms that produce peak flows less than the downstream regulator and/or existing sewer capacities.

Each ISD site is comprised of a control vault or building that house blower pumps, vacuum pumps, and valve actuators for inflating and deflating the dams, as well as instrumentation equipment for monitoring wastewater levels and the air pressure of the dam itself. The VR sites are comprised of electric actuators and sluice gates, which are used to divert flow throughout GLWA’s sewer system. The gates are operated to route flow from trunk sewers to various interceptors, relief sewers, or CSO facilities to reduce the stress on the system during wet weather. The VR gates can also be used to divert flow for inspection and maintenance purposes. The regulator/diversion chambers included in Contract No. 2201142 are sites where the outfall has either been bulkheaded or sites where a regulator/diversion chamber shares an outfall pipe with an adjacent site. Improvements to all other regulator/diversion chambers is covered under a separate contract. Due to the years of use and weathering, many of the structural, mechanical, and electrical aspects of these sites have become deteriorated and difficult to maintain or operate. The mechanical equipment in the ISD control rooms is original to their construction in the early 2000s and some of the dams have significant air leaks that affect their operations. The VR sites have gates and electric actuators that are corroding and in need of replacement and most of the electrical equipment is out-of-date and past its design life. Finally, the eight regulator/diversion chamber sites are mostly in need of access improvements.

## **JUSTIFICATION**

This project is required to improve the overall performance and reliability of critical GLWA assets. Blowers, valves, and sensors in the ISD control rooms will be replaced to increase efficiency and reliability and the inflatable dam material will be patched and inspected to reduce air leaks to acceptable levels. Electric actuators and gates will be replaced at selected VR sites to improve operations and reliability. New access hatches and manholes will create safer and easier access to

GLWA's assets. Finally, upgraded instrumentation will result in higher quality monitoring data and more reliable operations. These improvements are needed to bring long-term reliability, maintainability, and uniformity.

### **FINANCIAL PLAN IMPACT**

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

**Funding Source:** Wastewater Construction Bond

**Cost Center:** Wastewater Engineering

**Expense Type:** Construction (5421-892411.000-616900-260701)

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

Fiscal Year	
FY 2023 Plan	\$ 0.00
FY 2024 Plan	4,422,000.00
FY 2025 Plan	4,665,000.00
FY 2026 Plan	<u>534,000.00</u>
Financial Plan Estimate	\$ 9,621,000.00
Proposed Contract Award	<u>15,943,539.92</u>
Negative Estimating Variance	\$ (6,322,539.92)

The estimating variance is primarily due to increased costs in labor and materials in the construction market. Additionally, the project start has been accelerated to FY23. A FY23 \$5,900,000 budget amendment will be necessary to record the estimating variance and will be funded from Capital Reserves.

FY 2023 Plan Spend per CIP	\$ 0.00
FY 2023 Plan Spend adjusted for award value	<u>5,900,000.00</u>
FY 2023 Estimating Variance	\$(5,900,000.00)

The balance of the estimating variance will be adjusted for in the future 2024-2028 CIP Plan document.

**COMMITTEE REVIEW**

This item was presented to the Operations and Resources Committee at its meeting on August 10, 2022. 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.