



Financial Services Audit Committee Communication

Date: May 21, 2021

To: Great Lakes Water Authority Audit Committee

From: Kim Garland, CPA, Reporting & Compliance Manager

Re: Resolution to Adopt the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project FY 2022 Clean Water Revolving Fund Project Plan

Background: The Great Lakes Water Authority (the “GLWA”) has identified the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project FY 2022 Clean Water Revolving Fund Project Plan for submittal to the Michigan Department of Environment, Great Lakes and Energy (EGLE) for the Clean Water State Revolving Fund (CWSRF) financing program for funding in the state’s 2022 fiscal year. The deadline for submitting all CWSRF project plans to EGLE is June 1, 2021. Prior to submitting the project plan, GLWA will hold the required public hearing for the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project FY 2022 Clean Water Revolving Fund Project Plan on May 26, 2021 at 2:00 pm.

This project is comprised of the evaluation and rehabilitation of twenty-nine (29) of the In-System Storage Devices (ISD), Dam Remote (DR), and Valve Remote (VR) sites within the City of Detroit. These sites, which average 20 years in age, have undergone only minor repairs since the original construction. Maintaining reliable ISDs, DRs, and VRs are a key factor in maintaining the GLWA wastewater conveyance system and major component of mitigating historical problems such as CSO discharges to the Detroit River and Rouge River and residential basement flooding. The total cost of this project is currently estimated at \$10,597,000.

Justification: The project will significantly provide upgrades and improve reliability of the ISD, DR, and VR sites. GLWA is seeking low interest loan assistance through the CWSRF program for this project. Although the Michigan Department of Environment, Great Lakes, and Energy (EGLE) interest rate for FY 2022 will not be determined until October 2021, the current year’s interest rate of 1.875% is less than the present conventional revenue bond interest rates. Based on the estimated project amount of \$10.6 million, GLWA could save an estimated \$4.5 million in interest costs and avoided issuance costs, based on a similar open

market revenue bond with a 30-year term and 3.50% interest rate, over the life of the 30-year bond issue. This will afford savings to both GLWA and its member partners.

Budget Impact: Debt service for both projects is anticipated to begin in FY 2023 and will be included as part of the FY 2023 financial plan.

Proposed Action: Audit Committee recommends that the Great Lakes Water Authority Board of Director approve the attached Resolution to Adopt the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project – FY 2022 Clean Water State Revolving Fund (CWSRF) Project Plan at its regularly scheduled meeting on May 26, 2021.

..Title

Resolution to Adopt the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project FY 2022 Clean Water Revolving Fund Project Plan

..Body

Agenda of: May 26, 2021

Item No.: **2021-**

Amount: N/A

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer

DATE: May 26, 2021

RE: Resolution to Adopt the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project FY 2022 Clean Water Revolving Fund Project Plan

MOTION

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer and Navid Mehram, Chief Operating Officer – Wastewater Operations, the Board of Directors of the Great Lakes Water Authority authorizes the CEO **approves the attached resolution for the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project - FY2021 Clean Water State Revolving Fund (CWSRF) Project Plan**; and authorizes the CEO to take such action as may be necessary to accomplish the intent of this vote.

BACKGROUND

This project is comprised of the evaluation and rehabilitation of twenty-nine (29) of the In-System Storage Devices (ISD), Dam Remote (DR), and Valve Remote (VR) sites within the City of Detroit. These sites, which average 20 years in age, have undergone only minor repairs since the original construction. Maintaining reliable ISDs, DRs, and VRs are a key factor in maintaining the GLWA wastewater conveyance system and major component of mitigating historical problems such as CSO discharges to the Detroit River and Rouge River and residential basement flooding. The total cost of this project is currently estimated at \$10,597,000.

GLWA wishes to utilize loans available under the State of Michigan Clean Water State Revolving Fund (CWSRF) for this project and a public hearing on the project plan was scheduled for 2:00 p.m. on May 26, 2021. The attached Resolution accepts the project, directs GLWA staff to address all public comments, prepare responsiveness summary, and publish the final Project Plan; and authorizes GLWA's CEO to transmit the final DY 2022 CWSRF Project Plan to the Michigan Department of Environment, Great Lakes, and Energy and to secure a CWSRF loan for the project.

JUSTIFICATION

The project will significantly provide upgrades and improve reliability of the ISD, DR, and VR sites. GLWA is seeking low interest loan assistance through the CWSRF program for this project. Although the Michigan Department of Environment, Great Lakes, and Energy (EGLE) interest rate for FY 2022 will not be determined until October 2021, the current year's interest rate of 1.875% is less than the present conventional revenue bond interest rates. Based on the estimated project amount of \$10.6 million, GLWA could save an estimated \$4.5 million in interest costs and avoided issuance costs, based on a similar open market revenue bond with a 30-year term and 3.50% interest rate, over the life of the 30-year bond issue. This will afford savings to both GLWA and its member partners.

BUDGET IMPACT

Debt service is anticipated to begin in FY 2023 for this project and will be included as part of the FY 2023 financial plan.

COMMITTEE REVIEW

This matter was presented to the GLWA Audit Committee at its May 21, 2021 meeting. The Audit Committee [insert action] that the Great Lakes Water Authority Board of Director approve the attached Resolution to Adopt the In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project – FY 2022 Clean Water State Revolving Fund (CWSRF) Project Plan at its regularly scheduled meeting on May 26, 2021.

SHARED SERVICES IMPACT

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

Great Lakes Water Authority
Resolution 2021-

RE: Resolution for the In-System Storage Device and Dam Remote and Valve Remote
Evaluation and Rehabilitation Project
FY 2022 Clean Water State Revolving Fund Project Plan

By Board Member: _____

Whereas: The In-System Storage Device and Dam Remote and Valve Remote Evaluation and Rehabilitation Project Plan for the FY 2022 Clean Water State Revolving Fund (CWSRF) has been prepared by GLWA;

Whereas: The project is comprised of the evaluation and rehabilitation of twenty-nine (29) of the In-System Storage Device (SD), Dam Remote (DR), and Valve Remote (V) sites within the City of Detroit;

Whereas: The proposed project will significantly provide upgrades and improve reliability of the ISD, DR, and VR sites;

Whereas: The FY 2022 CWSRF Project Plan has been placed on public notice and a Public Hearing was held on May 26, 2021 at 2:00 p.m. where comments on the recommended project were solicited;

Whereas It is the desire of the GLWA Board of Directors to secure low interest loan assistance through the CWSRF program; and

Whereas: Formal action by the GLWA Board of Directors is needed to adopt the recommended FY 2022 CWSRF Project Plan for the In-System Storage, Dam Remote, and Valve Remote Evaluation and Rehabilitation Project, as a requirement for participation in the State of Michigan's CWSRF program.

Now Therefore Be It:

Resolved That this Board hereby accepts the FY 2022 In-System Storage, Dam Remote, and Valve Remote Evaluation and Rehabilitation Project, dated May 26, 2021, and as directs staff members of the GLWA to address all public comments, prepares the responsiveness summary, and publish the final Project Plan; and Be It Further

Resolved That the Chief Executive Officer (CEO) is authorized to transmit the final FY 2022 CWSRF Project Plan for the In-System Storage, Dam Remote, and Valve Remote Evaluation and Rehabilitation Project to the Michigan Department of Environment, Great Lakes, and Energy on behalf of the GLWA Board of Directors and take all appropriate steps to secure approval of a low interest loan in accordance with the State of Michigan's CWSRF procedures so that the project can proceed expeditiously to construction.

Adopted by the Great Lakes Water Authority Board on:



GREAT LAKES WATER AUTHORITY

GLWA IN-SYSTEM STORAGE DEVICE DAM AND VALVE REMOTE EVALUATION & REHABILITATION PROJECT

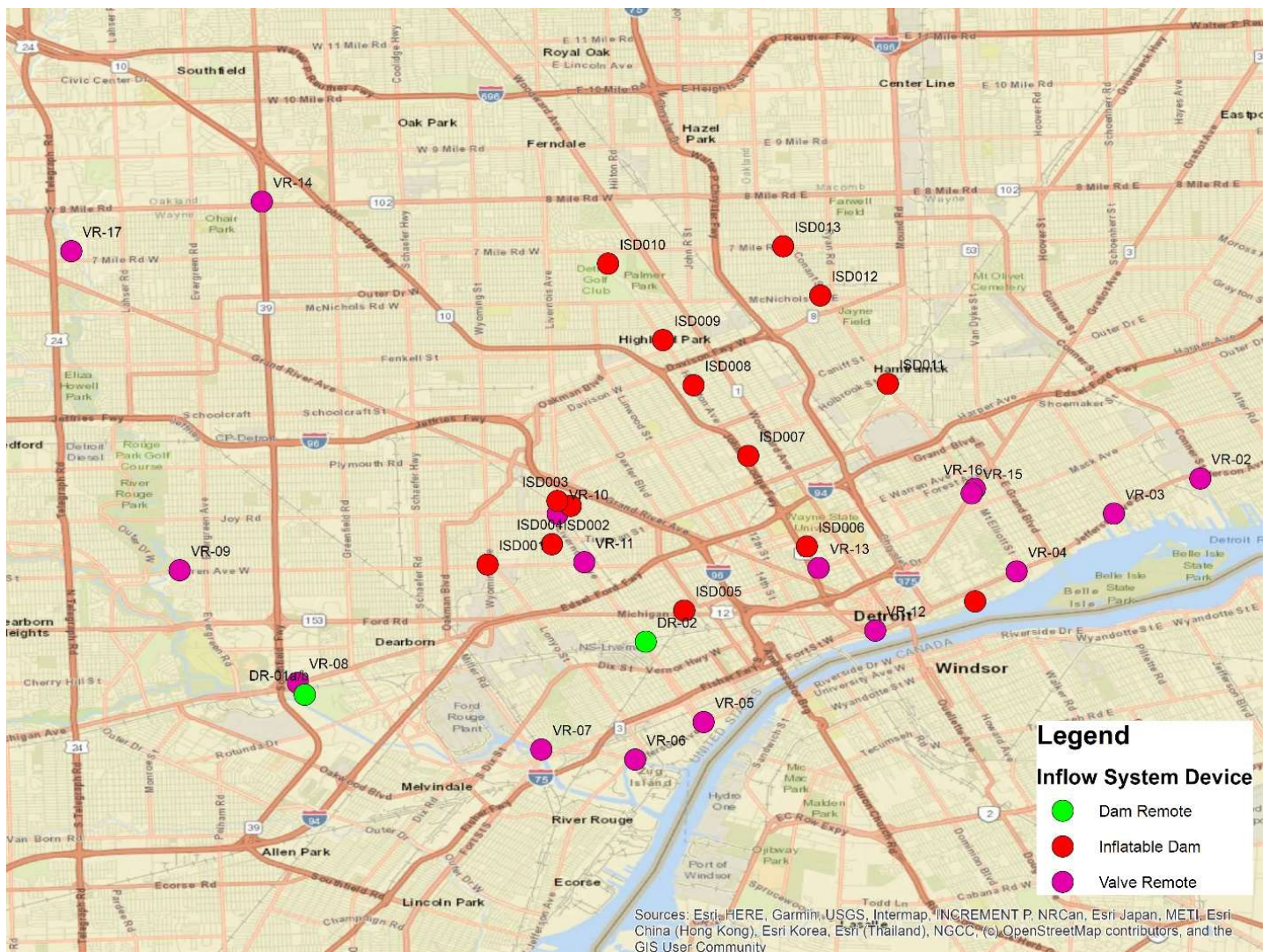
Project Plan
April 26, 2021

PROPOSED IMPROVEMENTS

Averaging about 20 years in age, the In-System Storage Devices (ISDs), Dam Remote (DR), and Valve Remote (VR) sites have only seen isolated rehabilitation or corrective maintenance since construction. Previous and ongoing inspections of the ISDs, DRs, and VR Gates have revealed many aspects of these sites are in distress and nearing their end-of-life. Some of the existing equipment is original to their construction over 20 years ago. Rehabilitation of the existing sites was deemed the most cost effective to maintain operational and structural integrity. This project will address all the critical assets of these sites.

SUMMARY OF PROJECT NEED

The ISDs, DR, and VR sites are a critical component of GLWA's CSO mitigation strategy and ongoing preventative and corrective maintenance procedures. Maintaining a reliable and operational status of these sites is a key factor in GLWA's wastewater conveyance system and a major element of reducing historical problems.



The ISD, DR, and VR sites have only had isolated repairs since their construction, 20 years ago. An asset management approach to developing a five-year CIP by GLWA has deemed this project as high priority. Inspections within the last five years has revealed critical assets within these sites need rehabilitation.

ALTERNATIVES

Three alternatives were considered but two of those options do not solve for the current status of the site or were too costly for the tasks required. The selected alternative can fix the current problems of the site and is the most cost effective for the tasks at hand.

The proposed ISD, DR, and VR Rehabilitation and Replacement alternatives considered for implementation by GLWA include:

- Alternative 1: Monitor and maintain current equipment.
- Alternative 2: In-place rehabilitation - Replace broken equipment and rehabilitate existing equipment.
- Alternative 3: Remove and replace all existing equipment.

MONETARY EVALUATION

COST EFFECTIVENESS ANALYSIS FOR ALTERNATIVES 1 THROUGH 3

Item	Alternative 1	Alternative 2	Alternative 3
Construction Period (Years)	0	4	4
Capital Cost*	\$0	\$8,165,000	\$30,866,000
Interest During Construction	\$0	\$302,000	\$1,142,000
Salvage Value (at 20 years)	\$0	\$0	\$0
O&M Cost (Annual)**	\$129,000 ***	\$129,000	\$486,000
O&M Cost (Present Worth)	\$2,130,000 ***	\$2,130,000	\$8,052,000
Present Worth of Replacement Costs	\$0	\$0	\$0
Total Present Worth	\$2,130,000	\$10,597,000	\$40,075,000
Equivalent Annual Cost	\$129,000	\$640,000	\$2,421,000

* Includes construction, engineering (design and construction), plus administrative costs (numbers rounded)

** Assume 30% of construction cost for Present Worth O&M Costs

*** Due to there being no costs for Alternative 1, Alternative 2's O&M Costs were used for Alternative 1.

ESTIMATED PROJECT COST

ESTIMATED COST FOR SELECTED ALTERNATIVE 2: IN-PLACE REHABILITATION - REPLACE BROKEN EQUIPMENT AND REHABILITATE EXISTING EQUIPMENT

Item	Alternative 2
Estimated Cost of Construction	\$7,100,000
15% for Engineering & Administrative Costs	\$1,065,000
Total	\$8,165,000

ENVIRONMENTAL EVALUATION

- The proposed improvements will significantly improve GLWA's capacity to handle significant stormwater flows throughout the collection system and mitigate historical problems such as CSO discharges and residential basement flooding in the service area.
- Construction is not expected to have adverse effects on neighborhoods within the project area.
- This project will not adversely affect the water and air quality within the project area.
- Implementation of the improvements will create construction-related jobs. Local contractors will have an opportunity to bid contract work.

USER COST IMPACT

Item	Improvements
Total Cost of Project	\$10,597,000
Annualized Cost of Project (assuming SRF interest rate of 1.875% over 20 years)	\$640,000
Service Area Population (City of Detroit and surrounding communities)	1,285,672
Estimated User Cost	~ \$0.50/user/year

IMPLEMENTATION SCHEDULE

Project Activity	Project Milestone
Post Draft SRF Project Plan and Public Hearing Notice	April 16, 2021
Public Hearing	May 26, 2021
Submit Project Plan to EGLE	June 1, 2021
Procure Design Engineering Consultant	October 22, 2019
Start of Construction Phase 1	December 2021
Complete Construction Phase 1	September 2022
Start of Construction Phase 2	March 2022
Complete Construction Phase 2	March 2023



Applied Science, Inc.

300 River Place, Suite 5400, Detroit, MI 48207

313.567.3990 * www.asi-detroit.com