



Office of the Chief Executive

735 Randolph Street, Suite 1900
Detroit, Michigan 48226

March 22, 2023

The Honorable
Board of Directors
Great Lakes Water Authority

RE: CEO Report – March 22, 2023

Dear Chairperson Hendrix and Directors:

I feel that it is important to acknowledge and thank the GLWA Board of Directors for approving the Fiscal Year 2024 budget and charges at their February 22, 2023. The system-wide charge increase for both the water and wastewater systems is 2.75 percent. This is the result of an overall FY 2024 budget increase of four percent, offset by increased investment earnings. The charge increase is well below the current rate of inflation in the United States, which is 6.5 percent.

Given historic operational cost increases and inflationary pressures on our capital programming, this year it was incredibly challenging to remain committed to the promise we made at our founding to keep our annual budget increase to no more than four percent in each of our first 10 years of operations. Thanks not only to increased investment earnings, but also to the hard work and commitment of our GLWA team to the principal of affordability, we achieved our goal. I am grateful for everyone involved, including our team members, our member partners and our Board for their ongoing collaboration, and for bringing this to conclusion in such a timely manner.

GLWA's seven-year annual average system charge adjustment for the water system is 2.2 percent, and 0.9 percent for the wastewater system. It is important to note that GLWA's average annual charge adjustment, over a seven-year period, is lower than the Consumer Price Index for Utilities (CPI-U).

Turning our focus to building resiliency in our regional system, I can report that the 14 Mile transmission main renewal project, which began at the end of January, is nearing completion. This project consists of renewing over 700 feet of 48-inch and 54-inch prestressed concrete cylinder pipe (PCCP) with carbon fiber reinforcement polymer (CFRP) and is the third round of renewal performed on the transmission main along 14 Mile Road between Franklin and Novi Roads. The pipe sections included in this project were identified as high priority for renewal based on the condition assessment that was completed in 2019 using SmartBall and Pipe Diver technology.

It should be noted that while in the main, crews discovered a three-foot longitudinal crack in the 48-inch main. Our consultant tells us that this crack was at the point of incipient failure, which means that the main was already failing but had not yet catastrophically failed (which could have resulted in hundreds of thousands of people's water service being interrupted). This is exactly the purpose of our Linear System Integrity Program (LSIP), of which this program was a part – to identify and renew pipes in the system before they cause service interruptions.

A massive amount of coordination with GLWA's Member Partners was necessary for this project and GLWA is grateful for the support and participation of our Member Partners impacted by this renewal. A special thank you to Farmington Hills and West Bloomfield Township for their support as both communities have been heavily impacted by this project. Without their coordination and temporary changes within their systems, these renewals would not have been possible. I also want to acknowledge our GLWA team members who have worked tirelessly on this effort, including Chief Planning Officer Jody Caldwell, LSIP Manager, Olivia Olsztyn-Budry, and System Operations Control Director Biren Saparia, as well as Field Services Director Todd King and the entire Field Service Team.

On March 1, GLWA announced updates to WRAP (Water Residential Assistance Program) which provides assistance to eligible, low-income households in our service region. The most significant change was the implementation of WRAP's new Income Based Plan, which after bill credits are applied, has the amount the household is expected to pay toward their water and sewer bill being no more than three percent of the household's income. In addition, it was announced that GLWA is partnering with the United Way for Southeastern Michigan to be the service delivery provider for Oakland County residents. The news conference received broad coverage across media outlets (see page 24 for links to the coverage). I want to thank Chief Financial Officer and Treasurer Nickie Bateson and Affordability and Assistance Manager Madison Merzlyakov for their exhaustive efforts over two years to identify and implement these changes, and for ably serving as our spokespeople at this news conference.

In my January report to the Board, I informed you that GLWA's proposed southeast Michigan Flood Mitigation Study had received programmatic authorization under the Water Resources Development Act (WRDA). This authorization is for WRDA funding for the United States Army Corps of Engineers (USACE) to jointly perform the study with GLWA. The study will evaluate the implementation of concepts such as wastewater storage at the ground surface or in deep tunnel levels, the use of pumping stations for discharge when flows get exceedingly high, construction of large diameter relief sewers, and consideration of strategic sewer separation. All these concepts are intended to consider how best to address the long-term impacts of climate change. I am happy to update you that this project with the USACE was included in President Biden's recently released proposed FY2024 budget. I am excited to keep this project moving forward and will continue to provide you with updates as they are available.

My efforts to connect with and inform elected officials about GLWA and our infrastructure needs continues. Recently, I was invited by Michigan State Senator Erika Geiss, who is the Chair of the Standing Committee on Transportation and Infrastructure to give a presentation before the Committee on the infrastructure challenges and opportunities facing GLWA. The date for my presentation is tentatively set for April 11 in Lansing.

In addition, Chief Administrative and Compliance Officer Bill Wolfson, General Counsel Randal Brown and I will be traveling to Washington, D.C., at the end of March for a second series of meetings with Michigan Legislators. We have also invited Board Chairperson Hendrix to join us for this visit. As I do in all my monthly reports to the Board, I will end with recognition of the hard work of our team members across GLWA. First, I am extremely proud to report that the Michigan Chapter of the American Public Works Association has selected the nomination of our 120-inch water transmission main break as their Project of the Year in the category of Emergency Response (\$1 million to \$5 million). This is a wonderful recognition of the tireless work done by all those involved in the emergency response to the break on GLWA's largest transmission main break, which occurred in August 2022! It is so nice to see their hard work and dedication called out by this organization of public works professionals.

I also want to acknowledge Financial Services Team Area Team Member Theresa Turner who recently received her Accounts Payable Specialist Certification from the Institute of Finance & Management. We applaud Theresa's efforts and appreciate her dedication to growing her professional skills.

PLANNING SERVICES

Asset Management Group (AMG)

The Enterprise Asset Management Group (EAMG), in conjunction with the NEXGEN implementation team, is working to configure and implement an advanced module in NEXGEN called Asset Management (AM) Planning. NEXGEN is GLWA's new Enterprise Asset Management (EAM) system. The AM Planning module consists of several tools to assist with asset planning, risk, and prioritization. These tools utilize operations and maintenance data in NEXGEN to report on risk, lifecycle costs, and asset repairs and replacement priorities.

Key data necessary for the module to work effectively include asset useful life, install date, replacement cost, and impact index (otherwise known as consequence of failure). The EAMG is currently in the process of gathering this data through various sources in collaboration with cross-functional team members across GLWA. These data points will be configured in NEXGEN to provide real-time information for each asset on a convenient dashboard for the everyday user to reference or pull into a report for strategic planning.

Example of an Asset Planning Dashboard in NEXGEN

HL5106 HL5106 - #6 HLP Edit				
	Description		Status	
	PUMPS POTABLE WATER INTO DISTRIBUTION SYSTEM....			
Reason	QR Code			

PLANNING SERVICES (continued)

Using the NEXGEN AM module will help GLWA better monitor remaining asset useful life, risk, condition, lifecycle, and replacement costs. The EAMG is working to fully understand the AM Planning functionality in NEXGEN and practical uses of the more advanced long-range planning tools that GLWA can use for informed decision-making as it continues its asset management journey.

GLWA's Linear System Integrity Program (LSIP) continues with assistance from our consultant, HDR of Michigan. This program focuses on improving the reliability of our water transmission and wastewater interceptor systems by developing a program to proactively assess the condition of in-service pipelines and identify recommended renewals to reduce the impacts of failures. Planning for the condition assessment of the 120-inch transmission main between the Lake Huron Water Treatment Plant and the Imlay City Booster Pumping Station continues. Planning for condition assessment of the pipelines involves multiple GLWA groups working together, including Water and Field Services, Water Engineering, Water Operations, Asset Management, System Analytics Meter Operations, and Systems Control Center.

The 14 Mile Road pipeline renewal project is underway and nearing completion. This project consists of renewing over 700 feet of 48-inch and 54-inch prestressed concrete cylinder pipe (PCCP) with carbon fiber reinforcement polymer (CFRP) and is the third round of renewal performed on the transmission main along 14 Mile Road between Franklin and Novi Roads. The pipe sections included in this project are identified as high priority for renewal based on the 2019 condition assessment. Application of CFRP required the shutdown and isolation of the transmission main for several weeks. Because of the isolation requirement, GLWA installed a temporary pump station in Farmington Hills to boost water pressures to serve portions of Farmington Hills and make several operational modifications within the GLWA system. Additionally, this project required GLWA's Member Partners that connect to the 14 Mile transmission main to make internal operational modifications to their systems for the duration of the transmission main isolation. A massive amount of coordination with GLWA's Member Partners is necessary for this project and GLWA is grateful for the support and participation of our Member Partners impacted by this renewal. A special thank you to Farmington Hills and West Bloomfield Township for their support as both communities have been heavily impacted by this project. Without their coordination and temporary changes within their systems, these renewals would not have been possible.

PLANNING SERVICES (continued)

Capital Improvement Planning Group (CIP)

On February 22, 2023, the FY 2024 - 2028 CIP was approved by the GLWA Board of Directors. The CIP Group expresses gratitude to GLWA Leadership and CIP Delivery Team members for their valuable contribution to the completion of this plan. This plan is effective on July 1, 2023. The CIP Delivery team is presently reviewing lessons learned from the FY 2024 – 2028 cycle to further streamline the annual CIP process. This includes enhancing and refining the online portal user experience, with the team initiating discussions on improving the portal's scoring of existing and new projects.



The CIP team is pleased to announce that Ian Thompson has taken on the advanced responsibility of the CIP Controls Manager position. Additionally, Dylan Wielusz has joined the team as the CIP Schedule Management Professional. The CIP team is continuing to work on recruitment efforts to expand the team and fill all open positions.

The CIP team, with the support of AECOM, is currently working on enhancing several chapters of the Program Management Plan (PMP), including PMP 11 Safety, PMP 15 CIP Planning, and PMP 13 Public Information and Stakeholder Management.

Systems Planning Group

On February 1, the **Wastewater Best Practices Work Group** met to learn about the Rouge Valley Sewage Disposal System's Long Term Corrective Action Plan, best practices for troubleshooting pumps, and the status of key collaborative projects such as the I-94 Modernization Project Drainage Plan, Gordie Howe International Bridge U.S. Port of Entry Stormwater Management Plan, I-375 Modernization Project Drainage Plan, and Evergreen-Farmington Sanitary Drain Capacity Increase / Far West Detroit Green Infrastructure Project.

On February 9, the **Wastewater Analytics Task Force** met to receive updates on the installation of additional level sensors in the sewer system, as well as a partnership with Michigan State University to monitor COVID-19 via wastewater.

PLANNING SERVICES (continued)

The ***Water Charge Methodology Review Subgroup*** met on February 3 and February 17 to review GLWA's third-party charge consultant, Raftelis' findings from benchmarking of similar systems' water charge methodologies.

Wastewater Member Meetings Meeting

The Member Outreach team is beginning to meet with members in areas of interest to learn about projects and potential collaborations. Area members on the west side of the wastewater system came together on February 16 to learn about the findings from the investigations into the summer 2021 extreme rain events and GLWA's efforts to improve system resiliency. On February 21, members on the east side of the wastewater system met to have these important discussions as well.

The ***One Water Co-Chairs*** met on February 24 at the City of Livonia's new Department of Public Works building, gathering in-person for the first time in three years. Co-Chairs discussed recent and upcoming Member Outreach meetings, evaluated approaches for new Member orientation, and shaped the agenda for the March 23 One Water Partnership meeting.

System Analytics & Meter Operations (SAMO)

The SAMO team is currently updating the water hydraulic model in-house. The hydraulic model was initially created using old water network Geographic Information System (GIS) layers that needed improvement in their accuracy. The GLWA GIS Team corrected the GIS layers by georeferencing the as-built drawings. The new GIS layers (outside the Detroit boundary) were mapped using InfoWater Software to create a new hydraulic model. To improve model accuracy, the attributes, connectivity, and model elevations were revised based on the as-built drawings. In addition, modeling scenarios for 2016 maximum, average, and minimum days, as well as 2020 average day, were created using the updated model by configuring system controls and allocating demands. The model, once completed, will be used internally for engineering evaluations, operational simulations and for the water master plan update.

The wastewater system Level Sensor Program Condition Assessment Project is still in progress. The majority of the new sites require DTE accounts, which are expected to be completed in March 2023. Nine additional level sensors have been identified to measure levels downstream of member meters. The installation at two sites has been completed and the remaining sites are under construction. Please see the map below for the locations of the new sites. At the WATF meeting on February 9, GLWA provided a program update to Member Partners.

WASTEWATER OPERATING SERVICES



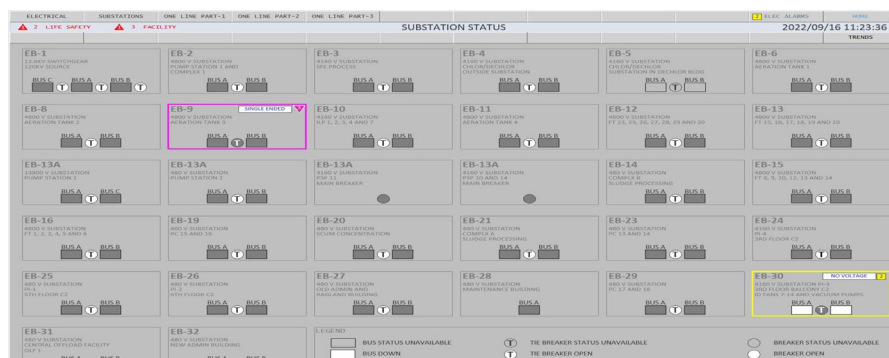
Figure 1: New Level Sensor locations to measure hydraulic grade level downstream of Member meters

Wastewater Operations

The Water Resource Recovery Facility (WRRF) operations complied with the Water Quality Standards for March 2023.

Maintenance

The Security and Integrity team hosted a tabletop exercise of an emergency at the Water Resource Recovery Facility (WRRF). The exercise identified an opportunity for improvement in the speed of time for identification of the extent of a power loss at the WRRF. The Process Automation and Control Systems (PACS) team worked in conjunction with the local Asset Management team to develop a single screen to show the status of all electrical buildings and substations in the plant. Training was conducted by the local Asset Management team for Process Control Center Operators, Operations Team Leaders, electricians, and other team members that wanted to attend. This screen will help identify the extent of power losses plant-wide without the need for physical verification of each location. This is a significant improvement in our resiliency at the WRRF.



Visual of the new power status screen which will help to determine the extent of power outages more efficiently.

WASTEWATER OPERATING SERVICES (continued)

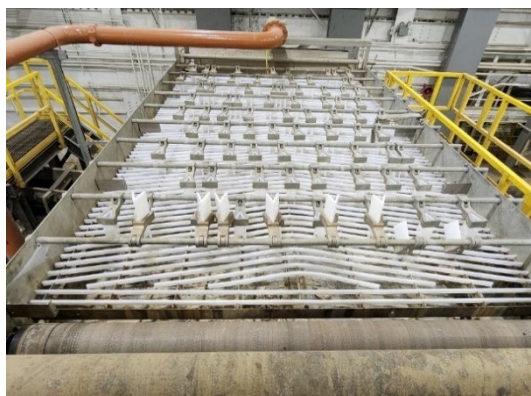


The image above shows mixer 3-7-B with a new gearbox installed. The vibration monitoring report showed the gearbox for the mixer was near failure.

The Secondary Maintenance Team continues to replace and rehabilitate mixer motors and gearboxes for the aeration decks. These maintenance actions are being performed based on the results of our vibration monitoring program. Proper utilization of predictive maintenance actions and programs, such as the vibration monitoring program, helps the maintenance teams identify issues prior to catastrophic failure of the equipment.

This gives the teams the flexibility to schedule repairs and rehabilitation proactively, rather than responding to equipment failures reactively. It also improves the overall reliability of plant equipment and minimizes unplanned operational downtime.

The Dewatering Team is continuing their program of rehabilitating the Belt Filter Presses (BFPs). These rehabilitation efforts include replacing the wear components that ride on the belt, such as the plows, and the wear components that the belt rides on. Periodic rehabilitation and replacement of the wear components of the BFPs prolongs the life of the belts by minimizing premature belt tears. This reduces unplanned operational shutdowns of the BFPs and maximizes operational flexibility in solids handling at the WRRF.



The image above shows BFP-22 being rehabilitated and having its wear components replaced.

WASTEWATER OPERATING SERVICES (continued)



One of the replaced valves and the secondary water line connection at the east wall shown in images above.

amount of work done in the shutdown. During the shutdown two major valves were replaced due to leakage. A valve actuator was replaced and reprogrammed, and the new secondary water line was tied into the east and west ends of the Complex A basement. Scheduling multiple significant efforts that require process shutdowns minimizes the operational impact by reducing the number of shutdowns needed to perform repairs. The coordination and hard work between the teams at the WRRF ensured the shutdown was a massive success.

The Operations, Maintenance, and Engineering teams at the WRRF coordinated and worked together on a substantial shutdown of Sludge Processing Complexes A and B as well as the secondary water servicing Sludge Processing Complex A. In addition to shutting down Complex A, the entire sludge header for Sludge Thickening Tanks 5 and 6 needed to be drained. This well-coordinated effort minimized the amount of time the Complexes were out of service while maximizing the

Process Control Center (PCC)

Innovation of the Year Award Presentation

Each year, the Ovation Users Group members are invited to nominate automation projects which employ innovative Emerson technology.

This year, the Ovation Users Group selection committee chose GLWA as a utility to recognize, based on our innovative use of Emerson software and technology to optimize the aeration basins. Through automation, GLWA achieved:

- 62% reduction in aeration basin mixed liquor level variation
- significantly reduced variability in dissolved oxygen concentration
- reduced oxygen usage

WASTEWATER OPERATING SERVICES (continued)

The PACS Team accepted the award for GLWA at the February Board Meeting. The Team wishes to acknowledge the work of all other GLWA teams, including Operations and Maintenance, Purchasing, Budget, and the office of the General Counsel, that provided valuable support services allowing us to focus on providing the best control systems and services to Operations.



*(Left to Right) Chris VanPoppelen, Zaki Shalhout, Glenn Heintz (Emerson VP),
David Mehram, Suzanne Coffey*

Factory Acceptance Testing of Pump Station #1 Ferric Chloride System at the WRRF

The PACS Team witnessed the Factory Acceptance Test for the Ovation Software Configuration. The team reviewed the graphics, logic and database and documented deficiencies for the Contractor to correct.

Industrial Waste Control (IWC)

A revised IPP was submitted to the State of Michigan on October 6, 2021, requesting that GLWA be recognized as an Independent Control Authority. MI-EGLE publicly noticed the program on December 16, 2022, and provided a 30-day comment period before taking further action. The comment period ended on January 16, 2023. MI-EGLE sent an approval letter dated February 10, 2023, designating the GLWA WRRF as the Control Authority. It should be noted that MI-EGLE is required to reissue the National Pollutant Discharge Elimination System (NPDES) Permit incorporating the February 10 decision prior to it becoming enforceable.

Engineering and Construction

CIP Design:

CIP 211005.2, Contract No. 2103338 – Pump Station 2 VFD Replacement.

This project is preparing to submit the 60% design drawings. There was a 30% design review workshop and comment response, followed by a site visit. The designer is also preparing a letter for scope change request, which will be reviewed upon receipt.

CIP 211005.3, Contract No. 2104082 – Pump Station 2 Mag Meter Replacement.

Drawings have been completed and specifications are being finalized for bidding. We are anticipating providing this project to Procurement in the next 1-2 months.

WASTEWATER OPERATING SERVICES (continued)

CIP 211006, Contract No. CS-102 - Pump Station 1 Improvements (WRRF).

PS1 contract was approved at the January Board meeting. The Contract was executed and a notice to proceed was issued to Weiss Construction. GLWA is currently working on State Revolving Fund (SRF) requirements for this project to secure principal forgiveness and a SRF loan. A change order will be brought to the Board in April. Updates for this project will stop occurring under “design” beginning with the April CEO report.

CIP 211007, Contract No. 1904337 – Pump Station 2 Bar Rack & Grit System Improvements.

This project is progressing towards a 90% design submittal in May. The team is currently negotiating an amendment for additional services by the vendor. A reliability centered design/maintenance workshop was held over two days in February to ensure the design is on the right track to meet operational and maintenance requirements to ensure reliability of the system overall.

CIP 222001, Contract No. 2204604 – Oakwood District Intercommunity Relief Sewer.

Construction for this project is on hold in the absence of funding. Easement and permit acquisition for this project, in anticipation that GLWA secures additional funding, is currently under way. GLWA also continues to pursue alternative avenues of securing additional funding for this project at all local, state, and federal levels. Part of this work that affects the Oakwood CSO Facility (the influent chamber rehab) is being packaged up to be bid out with CIP 270004 and timed with other improvements to the Oakwood CSO Facility.

CIP 260802, Contract No. 2200443 – WRRF Roof Improvements Program.

This project recently completed a 90% review and the final bidding documents are being prepared for the first design package. Two additional design packages will be forthcoming after this package is complete and will be bid out in accordance with the CIP plan and budget.

CIP 260903, Contract No. 2201744 – WRRF Front Entrance Rehabilitation.

This project design was completed at the end of December. This project was provided to GLWA Procurement in January, and the pre-bid meeting is scheduled for the first week of March.

CIP 260904, Contract No. 2200545 – WRRF New Administration Building – Third Floor Renovation.

The design for the 3rd floor is progressing after input from stakeholders. The design is anticipated to be completed later this year. The standards set forth for the design of the fourth floor renovations are being carried forward on the 3rd floor to ensure consistency at the New Administration Building.

CIP 273001, Contract No. 2103225 – Hubbell Southfield CSO Facility Improvements.

Received proposals from two vendors on January 20, 2023. However, each vendor’s response to Appendix A was not according to the Scope of Work submitted to Procurement. Addendum No. 7 was issued on February 23, 2023 for a revised Appendix A from both vendors by March 20, 2023, 12:00 p.m. The evaluation due date is extended to April 10, 2023.

WASTEWATER OPERATING SERVICES (continued)

CIP 277001, Contract 1902908 – Baby Creek Outfall Improvements Project.

The site design for site modifications is nearly complete (90% submittal in February under review by the project team). Construction activities are expected to begin in March / April of this year and then continue until all debris is removed, outfall inspected, and structural repairs made.

Non-CIP Design:

TOES 35T, Contract No. 2202034 – Sludge Pumps 21 through 24 Motor/Drive Improvements. Project was kicked off in February and preliminary efforts are underway to gather operational data that will be utilized to inform the design. Preliminary meetings are also being held with operations and maintenance to further inform preliminary design efforts. The design is anticipated to be completed around July or August.

TOES 39T, Contract 2201974 – Secondary Clarifiers, B House Piping & Meter Improvements. This task has been awarded and a kickoff meeting is scheduled for March. This task will make improvements to B Tanks (secondary clarifiers) piping and metering in the B houses.

Wastewater Projects in Construction:

CIP Construction:

CIP 211006, Contract 2103350 – PS No.1 Improvements (WRRF).

PS1 contract was approved at the January Board meeting. The contract was executed and a notice to proceed was issued to Weiss Construction. GLWA is currently working on SRF requirements for this project to secure principal forgiveness and a SRF loan. A change order will be brought to the Board in April.

CIP 211008, Contract 2002190 – Rehabilitation of Ferric Chloride Feed System at Pump Station-1(PS-1) and Complex B Sludge Lines (WRRF).

Wiring, hydrostatic testing and other construction activities are progressing in preparation for start-up and testing of the PS-1 ferric chloride system starting in March of 2023. Demolition of existing ferric chloride tank 4 is continuing. The contractor expects to start construction of the temporary sludge line under the rail spur in March 2023. A change order to extend the contract time by 235 days was approved by the Board at the February meeting.

WASTEWATER OPERATING SERVICES (continued)



Wiring Installation in the Chemical Building



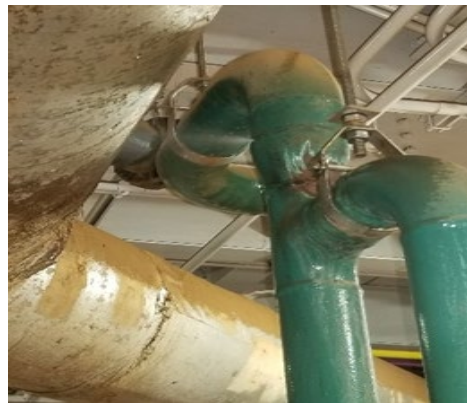
Ferric Tanks Demolition

CIP 213007, Contract CON-197 – WRRF Modification to Incineration Sludge Feed Systems at Complex II (WRRF).

Work under this contract is more than 98% complete. The contractor is currently addressing the issues/deficiencies identified during a trial operation that includes chute modifications on belt conveyors. GLWA has notified the contractor that all those issues/deficiencies must be addressed before the 30-day test can begin. Black and Veatch is also working to redesign strainer backwash piping that has experienced numerous leaks due to excessive abrasion within the pipes and valves.



K Belt Chair



Strainer Backwash Leakage

WASTEWATER OPERATING SERVICES (continued)

CIP 216004, Contract 1802410 – Rehabilitation of various Sampling Sites and PS#2 Ferric Chloride System (WRRF).

The contractor has replaced the ferric chloride discharge pipe (to wet well) that was found damaged due to freezing last month. The insulation and heat trace for those damaged pipes are being replaced now. Concurrently, the contractor is working on addressing the variances which resulted from the System Acceptance Test (SAT). A 30-day performance test will be conducted as soon as all deficiencies, including variances, are addressed by the Contractor.



Damaged Ferric Chloride discharge piping is replaced by the Contractor shown above

CIP 216006, Contract 1903601 and 1903598 –Assessment and Rehabilitation of the WRRF Yard Piping and Underground Utilities (WRRF).

Preliminary design (30% design) is complete for all 21 improvements. The designer CDM Smith is expected to complete the 75% design in late March with input from GLWA.

CIP 216011, Contract No. 2100239 – The WRRF Facilities Structural Improvements.

All above-grade buildings assessment under this project is ongoing. Sludge storage tanks 5 and 6 assessment will be performed during March 2023. NAB leak repairs are ongoing and anticipated to be completed by March 27. Temporary shoring was installed at PS-1 Rack and Grit building for corbel repairs to start soon.



PS-1 Rack & Grit – Corbel Repairs



NAB water leak repair

CIP260204, Contract No. 2103688 – Rehabilitation of Connors Creek Sewer Systems. This project recently transitioned to wastewater engineering. The Contractor's major submittals are being submitted and / or are under review. CIPP liner piping is being ordered and anticipated to be delivered by May 2023. CIPP lining will begin in June or July, weather pending. The wastewater engineering team is evaluating the Contractor's schedule and forecasting and will be further engaging them as this project moves forward.

WASTEWATER OPERATING SERVICES (continued)

CIP 260207, Contract No. 2004082 – Rehabilitation of the Woodward Sewer.

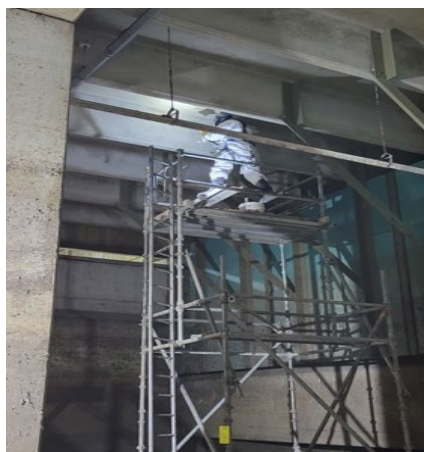
This project has recently transitioned to wastewater engineering. This project is behind schedule in part due to supply chain delays and other reasons. We are working to determine to assist the contractor in getting back on schedule. Major submittals for the installation of CIPP lining are being prepared by the contractor to facilitate the work being executed in the field. The wastewater engineering team is evaluating the contractor's schedule and forecasting and will be further engaging them as this project moves forward.

CIP 260210, Contract No. 2201041 - Rehabilitation of Ashland Relief, Linwood, Lonyo, Second Avenue and Shiawassee Sewers.

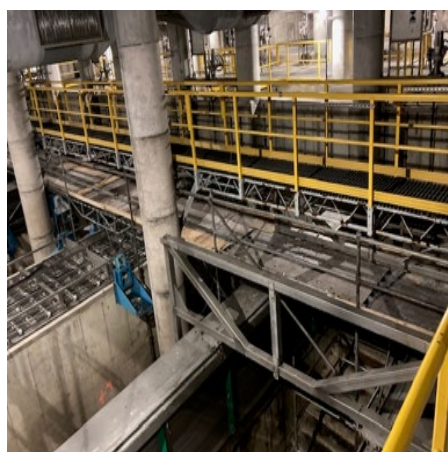
This project has recently transitioned to wastewater engineering. This project was approved by the Board in December. We anticipate a contract being executed and the vendor given a notice to proceed in March or April 2023. A kickoff meeting will be scheduled in March or April to kick off the design efforts for this project.

CIP 260614, Contract No. 1902224 – CSO Facilities Structural Improvements.

About 68% of the structural improvements have been completed at CSO facilities, including additional repairs through Change Order No.1. The Contractor has placed additional resources to complete all repairs at six CSO facilities (Hubbell-Southfield, Oakwood, Leib, Conner Creek, St. Aubin, and Puritan-Fenkell) by the end of June 2023.



Ceiling repairs at PF



Temporary Scaffolding for Leib walkway

CIP 260902, Contract No. 2101879 – Renovation of the 4th floor at the WRRF.

Construction activities like pulling electrical wires, HVAC piping and duct installation, painting of interior offices, installation of Air Handling Unit No.4 are progressing at the site.

WASTEWATER OPERATING SERVICES (continued)

CIP 260905, Contract No. 2203675 – WRRF Hazmat Building Rehabilitation.

This project went to the Board for construction award in February 2023 and was approved. We anticipate a notice to proceed date sometime in March or April 2023. This project seeks to improve the Hazmat building, add parking for emergency vehicles, add space for training, and security monitoring, as well as site improvements adjacent to the facility.



Fan Powered Variable Air Volume (VAV) installation in progress

CIP 276002, Contract No. 2104157 - Replace Makeup Air Unit (MAU) No. 2 at Conner Creek CSO.

The installation of the new makeup air unit No.2 (MAU-2) has been completed along with controls and integration with the building management system (BMS). On the scheduled day of the startup/testing, it was found that the MAU was not working due to a bearing failure. The contractor will replace the entire drive kit. New startup/testing will take place in the month of March 2023.

CSO Control Program

CSO Operations had a very busy month. There were several discharge overflows from seven out of the nine facilities, with captures from one of the remaining two. The facilities fared well and the CSO team responded accordingly to assure that we would meet our permit requirements.

CSO Operations regularly completes a post event performance analysis to aid in operational strategies for larger storms in the future. This month we focused on Hubbell-Southfield CSO. Additionally, the new team members were given onsite lab training by the WRRF's Lab Team Leader, Beatrice Wanji.

Keion Harris, one of our newest team members, continues to show demonstrated commitment to learning and operating the Hubbell-Southfield CSO. Mr. Harris has seven months on the job and is proving to be reliable during our inclement weather responses. Additionally, he completed a site tour with our designer, and found him to be very knowledgeable in explaining the facility's functions and needs.

Puritan-Fenkell team member Phillip Lewis worked alongside the WRRF's maintenance team in cleaning out the wet well at Puritan-Fenkell. It was noticed that the wet wells were pumping down slowly. The team cleaned the wet well and discovered one of the sanitary pumps was leaning off the guide rails. The pump has been replaced by a different model (spare pump). Further study is underway to troubleshoot the cause of the derailed pump.

WATER OPERATIONS

120-inch Water Transmission Main Break

GLWA was recognized by the Michigan Chapter of the American Public Works Association (APWA) for the 120-inch Water Transmission Main Break as 2023 Project of the Year APWA – Michigan Chapter in the category of Emergency Response \$1 Million to \$5 Million. At their Annual Conference in May of this year, the Michigan Chapter will recognize this project as an award winner. In addition, this project was forwarded to the APWA National office for competition at that level.

Water Operations

Lake Huron Water Treatment Plant

Lake Huron Maintenance Team Saving GLWA Money

Lake Huron owns a large piece of property that consists of 457 acres with multiple miles of security fence. Most of this area is heavily wooded and becomes a security concern when trying to police the fence line. Lake Huron's Maintenance Team met with Sgt. Daniel Aman and located several areas in the fence that needed repair.

Fence crews were not able to make the repairs due to the access challenges. In the past, the work was performed by contractors. This time around, Team Leader Michael Hayden talked with the five maintenance technicians and asked if they were up for the challenge to clear the perimeter of the fence. Of course, they accepted! Planner Daniel Aman rented a large track machine with a forestry head and the team cleared over 8,000 feet of fence line which included tree removal, cattails, and years of overgrown shrubs. Significant cost savings was achieved by doing the work in-house. The Security and Integrity team was very happy with the progress. *(Photos shown below).*

The Lake Huron Maintenance Team is now working to acquire stone to create a roadway along the fence in to make it easier for security to patrol the fence line. Again, doing the work in-house will provide significant cost savings. Team Leader Michael Hayden said, “this is a great activity working to keep our plant safe, saving money and working with the security team. This is one reason I love coming to work every day! Teamwork.”

WATER OPERATIONS (continued)



Filter Performance Evaluation Study

The Lake Huron team completed a filter evaluation on filters 7, 15 and 19. Conventional water treatment plants use filtration to remove suspended particles from water. At the Lake Huron plant, the filter media consist of gravel, sand, and anthracite on top of Wheeler underdrains. As water passes through the filter media, suspended solids are filtered out. Over the years, media gets degraded and the effectiveness of the media to filter the impurities diminishes. Laboratory, operations,



maintenance, and engineering team members worked together to complete the study. Plant leadership used this opportunity to train the water technician apprentices about filter media and its importance in water treatment. Team members took media depth measurements, collected core samples, and inspected the filter media. To do this, they sank a 4' x 4' polycarbonate box and excavated the media all the way to the filter bottom and inspected the underdrain. This study provides the Lake Huron team with detailed information about the overall picture of these filters and to aid with future decision making. The lab team also performed other tests that included uniformity coefficient of the anthracite, floc retention analysis, and a mudball analysis. A detailed report will be created about all three filters when all tests are completed.

Lake Huron Staff Excellence

Lake Huron's Maintenance Team Planner Daniel Aman is a great team player and always looks out for his team and coworkers. During the last chlorine drill, he noticed people in the level A suits had trouble communicating. At the end of the drill, he asked safety officer Marcus Askew to find a communication device that would help with this issue. Daniel successfully set up a meeting for the Lake Huron management team to talk with a 3M Hearing and Communication Specialist that works with Premier Safety.



WATER OPERATIONS (continued)

After a technical discussion, Dan is working towards adding the PIC-100 features environmental listening technology to the level A suits. This technology will help our team communicate successfully face-to-face in level A suits.

Springwells Water Treatment Plant

Low Lift Steel Painting

Contract No. 1900134 “Springwells Water Treatment Plant Low Lift Pump Suction Gate Replacement” has been cleaning and painting the support steel at the Main Level of the Low Lift Station. This steel dates to 1958 when the Low Lift was modified by raising the Low Lift pump discharge weirs two feet. The steel, consisting of I-beams and embedded angles support the grating above openings in the pump suction and discharge rings. The steel grating was previously replaced under the same contract.



View of opening as scaffolding is installed prior to painting

To create a contained work area for blasting and painting the steel, a scaffold structure was built at each opening and plastic sheeting hung to prevent any material from getting into the air or the water at the Low Lift. A trailer with an air filtration system was parked outside the Low Lift and a duct connected to the work enclosure. With the fan running, a negative pressure was developed further containing the dust generated by this work.



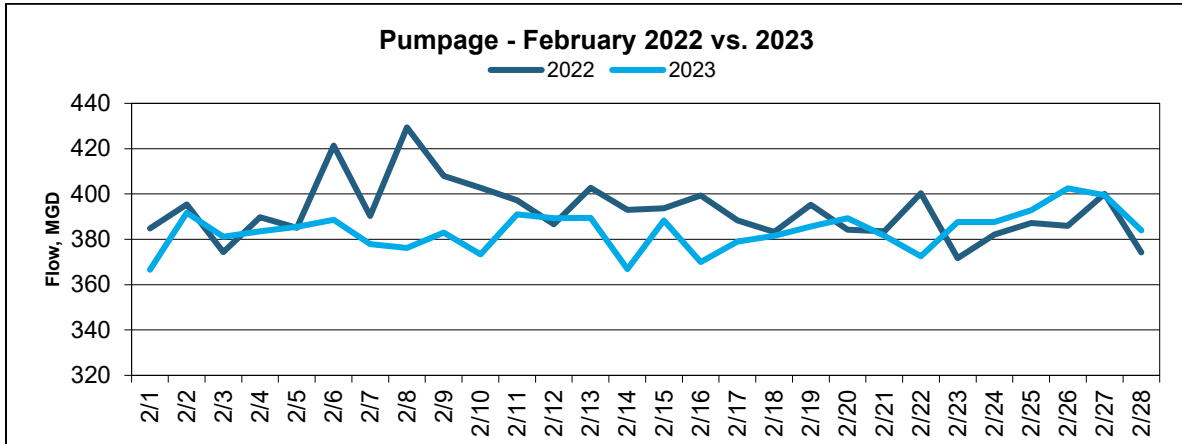
View of opening after painting

After blasting the steel and cleaning up the enclosure, two coats of epoxy were painted onto the now bare steel. This epoxy will prevent rust and will allow for many more years of service.

WATER OPERATIONS (continued)

Systems Control Center (SCC)

February 2023 pumpage was 2.2 percent lower than 2022

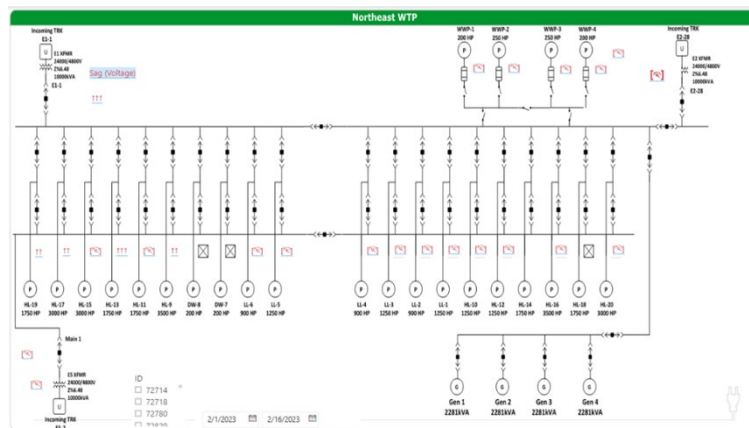


Energy, Research & Innovation

Energy

Disturbance Direction Power BI Report for the Water Treatment Plants

Dr. Mostafa Moussa has collaborated with system operation to create Power BI reports to show the electrical line disturbance direction information from multiple meters in each of water treatment plants (Northeast, Water Works Park, Southwest, and Springwells) that are equipped with power quality meters. These reports will enable the maintenance teams to move quickly and accurately locate the source of electrical disturbances within each plant. These disturbances are sags (10% voltage decrease from nominal), swells (10% increase from nominal), transients, and interruptions.

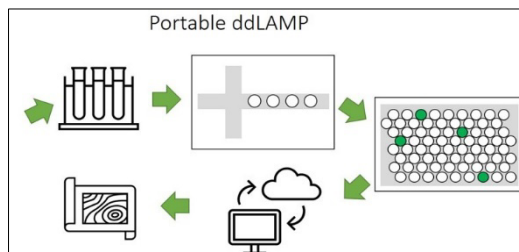


WATER OPERATIONS (continued)

Research

Method Development for Detection of Human Sources of Fecal Contamination in the Watershed

This project is aimed at developing a digital droplet loop-mediated isothermal amplification (ddLAMP) for source tracking of sewage contamination throughout the area overseen by the Watershed Hub Work Group of GLWA. The research laboratory developed a new chip manufacturing process (a manuscript containing this information was reviewed and has been submitted). Pilot designs that generate droplets of various sizes have been constructed, and methods of visualizing the droplets and their fluorescence have been preliminarily tested. During the next six months, chips will be designed in which LAMP reactions can be visualized under laboratory conditions. Currently, the research team is working on addressing a few challenges needed to establish the best chemistry and temperature conditions for distinguishing positive responses of environmental samples from the negative controls. This is crucial since the quantitative statistical interpretation depends on the differentiation between true negatives from false positives.



Engineering

Contract No. – 1803312 West Service Center Pump Station and Division Valve Upgrades.

The West Service Center's new reservoir pumphouse building envelope has been closed with the installation of doors and appurtenances. Electrical power connections from the existing switchgear to a new switchgear have been completed, and the new building is energized. General lighting and branch circuit installations continue. The security system has been installed. Some cone valves have been received and installed. Instrumentation installation has begun. The reservoir tanks have been completed and filled with four feet of water for winter. Tie in to 60" suction main with 42" supply for reservoir fill has been completed.

Future work is going to slow as we wait for the last cone valves to pass factory acceptance tests and be delivered, and ovation equipment submittals continue to slow progress. The supply of the ovation equipment is the primary driver of the schedule going forward.



West Service Center Pump House and Divisional Valve Replacement Project view from northwest corner

WATER OPERATIONS (continued)



42" to 60" Connection and controlled low strength material (CLSM) Encasement



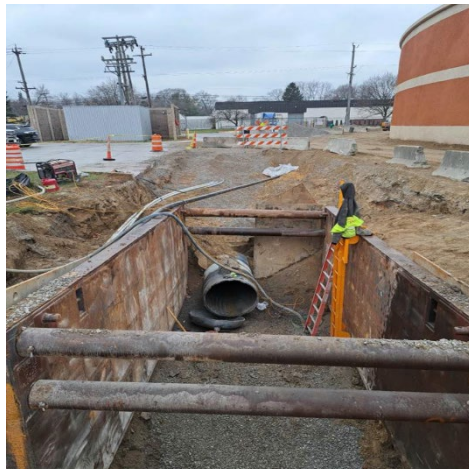
Pump Station 635 Pump Floor



Horizontal Split Case (HSC) pump impulse piping Instrumentation Rack



Completed Exterior Coating on Reservoirs



Reservoir fill pipe with welded cap removed at tie-in point



Overhead door installation complete on new pump station

INFORMATION TECHNOLOGY

In the past month, the IT Security team has proactively blocked or thwarted 40,976 spam messages, 16,175 spoofed messages and 4 viruses. Additionally, 2,375 phishing attempts have been caught and 3,834 malware attempts have been blocked.

The IT Business Productivity Team, along with Organizational Development and Financial Services, continue to make good progress on our Workday implementation, which will replace our BS&A Financial System (FINS) and the Ceridian Human Resource Management (HRM) system. The project team has completed customer confirmation sessions, during which the initial configuration was confirmed to meet requirements and needed changes noted. Currently, the team is conducting unit testing, running through a variety of scenarios to confirm that the system works as expected. The team is also working on needed integrations with other systems, including new, Workday-compatible timeclocks that are being installed in the same locations as our existing timeclocks.

Now that the baseline configuration has been established, we are at the point where the timelines for HRM and FINS diverge. HRM will progress at a pace for a December 2023 launch, and FINS will move on pace for a June 2024 launch.

The IT Enterprise Asset Management Systems Team, along with Transformation and Wastewater Operations, completed a new Incinerator Downtime dashboard. The new dashboard was distributed to Wastewater Operations and Maintenance team members to view and validate the previous shift's incinerator downtime codes that are input by Process Control Center operators. This allows the Operations and Maintenance teams to understand which incinerators need attention during their shift to return them to service. In addition, there is an accompanying email that goes out at 5:15 a.m. and 5:15 p.m. at the beginning of each shift with tables displaying the same information and a link to the dashboard to explore the details. This email notification was created so the information would be more readily available in the team members' inboxes.

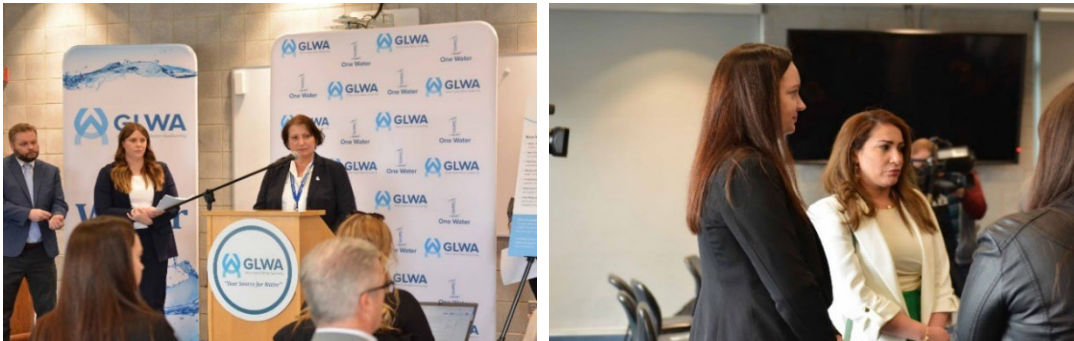
Incinerator Down Time Codes in Last 24 Hours*			
CEMS	8	2	
Downtime Code Desc	Downtime Code	Hours Down	
SCHEDULED MAINTENANCE	2	24	
Downtime Code Desc	Downtime Code	Hours Down	
COLD BUT AVAILABLE	0	3	
Downtime Code Desc	Downtime Code	Hours Down	
INCINERATOR	5	10	
Downtime Code Desc	Downtime Code	Hours Down	
LITH ITERS	9	11	
Incinerators Available in Last 24 Hours*			
UNIT AVAILABLE	1	24	
Downtime Code Desc	AV	Hours Available	
UNIT AVAILABLE	1	24	
Downtime Code Desc	AV	Hours Available	
UNIT AVAILABLE	1	24	
Downtime Code Desc	AV	Hours Available	
UNIT AVAILABLE	1	22	
Downtime Code Desc	AV	Hours Available	
UNIT AVAILABLE	1	24	
Downtime Code Desc	AV	Hours Available	

Figure 1: Incinerator Downtime Code and Hours Down Dashboard

Currently, the IT PMO is managing 17 active projects and is processing one project request.

PUBLIC AFFAIRS

The links of the news conference for WRAP's (Water Residential Assistance Program) broad coverage across media outlets as referenced on page two of the CEO's Report are included here: [The Detroit News](#), [Detroit Free Press](#), WJBK-TV 2, [WDIV-TV 4](#), WXYZ-TV 7, [WWJ-TV 62](#), WWJ-AM and [Michigan Radio](#).



Lake Huron Pilot Plant One Water News Drop

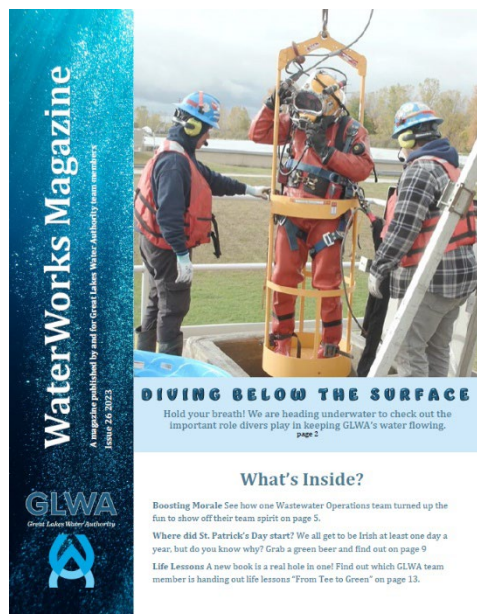
The Public Affairs team produced a new One Water News Drop video showing off GLWA's new pilot plant at the Lake Huron Water Treatment Facility. The state-of-the-art facility is a Full-Scale replica of the treatment plant and will be used to provide training, test and evaluate innovative treatment processes, and host future research collaborations.



You can watch the video by clicking [HERE](#).

PUBLIC AFFAIRS (continued)

WaterWorks Magazine Issue 26



Public Affairs has published WaterWorks Magazine Issue 26 (shown left). The magazine covers a variety of interesting topics. Inside you can read how GLWA uses divers to inspect, perform maintenance and repairs on tanks, pipes, and equipment, how one Wastewater Operations team is showing off their spirit and what inspired one of our team members to try something new and become an author.

NACWA National Environmental Achievement Award

The Great Lakes Water Authority has once again been recognized for its work on a national level. GLWA recently received a National Association of Clean Water Agencies (NACWA) National Environmental Achievement Award. Public Affairs Management Professional Curtis Burris-White and Specialist Jason Matthews accepted the award

during a ceremony in Sonoma, California. (Photo shown below). The award was the Public Information and Education-Video Award for GLWA's "Where Does the Water Go" video. The video uses simple, easy to understand language to describe one of the most complex regional collection systems in the world. The award honors agencies for their inventive efforts to educate the public on the effects of wastewater treatment and pollution control on the environment. You can watch the video by clicking [HERE](#).



Curtis Burris-White (left), Jason Matthews (right)

SECURITY AND INTEGRITY

The Hazmat Unit coordinated and completed a total of 234 hours of training during the month.

Security and Integrity developed a new protocol for the ReadyOp initial message for both WRRF and Water Operations.

Security and Integrity responded to the Northeast Water Treatment Plant for a fire in the low-lift area.

Lastly, the group held a “hotwash” with the Executive Leadership Team and GLWA Team members that responded to the 120” transmission main break.

ORGANIZATIONAL DEVELOPMENT

Apprenticeships

The EICT-E apprentices begin the fourth year of their five-year apprenticeship in March. These apprentices completed their final rotations and will be stationed at their home locations for the remainder of their apprenticeship.

GLWA received a grant payment of \$4,000 from Focus: HOPE to offset the cost of the Related Training Instruction for the apprentices. The Focus: HOPE grant was awarded for satisfying the requirements of the State of Michigan’s Michigan Industry Cluster Approach (MICA) 3.0 grant that is convened by Focus: HOPE. GLWA also conducted Apprenticeship Training for members of the MICA 3.0 grant Employer Led Collaborative in February.

Three OD Performance team members completed the Veteran’s Administration Enrollment Manager School Certifying Official Certification allowing GLWA to continue to offer the GL Housing benefit to qualifying veterans as part of their apprenticeship program.

GLWA now has a dedicated email (apprenticeships@glwater.org) to receive requests for information regarding apprenticeships.

Progression

The 2022 Progression Cycle yielded 25 progressing team members: 24 team members progressed one level and one team member progressed two levels.

In support of the Memorandum of Agreement (MOA) with AFSCME Local 2920, GLWA progressed 81 regular status level one Plant Technicians and Water Technicians to level two. These team members received a wage increase that was retroactive to the date of the approved MOA.

ORGANIZATIONAL DEVELOPMENT (continued)

Summer Internship Program

Recruiting for summer interns has begun. As of the date of this report, two summer intern positions have been filled. The summer internship program will launch on Monday, May 1, 2023, and conclude on Friday, September 1, 2023.

Benefits and Wellness

GLWA Men's Health Initiative



February brought health initiatives that highlighted and supported GLWA team members.

GLWA hosted “Beginning New Habits” - its third virtual session for its Men’s Health Initiative. Presentations and discussions included “Healthy Money Habits,” “Introduction to Mindfulness,” and a review of the best seller *Atomic Habits*.

Guest speakers included Kathi Sitek, Vice President of Business Development, Diversified Members Credit Union (DMCU), Michele “Miki” Della-Moretta, Well-Being Coordinator, Blue Cross Blue Shield of Michigan and GLWA’s Visual Storyteller, Curtis Burris-White.



GLWA Women's Health Initiative

GLWA hosted “Self-Love: Be Your Own Valentine” its second virtual session for its Women’s Health Initiative. Latasha Jones, Human Resources Generalist, Organizational Development and Molly Sullivan, Professional Administrative Analyst, Systems Analytics and Meter Operations, guided the session. Team members shared impactful experiences with mindfulness-based stress reduction (MBSR), how a vegan lifestyle of eating has helped to address and resolve illness, and heartfelt words of wisdom on forgiveness that benefits the giver. Presentations included the deep value of self-care and what it can look like to meet a variety of needs.

Guest speakers included Shuntai Allen-Bey, CEO of Re-Connect My Life, Daysha Moore, Professional Administrative Analyst, Procurement, Francine Duncan-Martin, Management Professional, Finance, and Debra Anderson, Transformation Manager.



Transformation Thursdays

Transformation Thursdays returned with Ali Turfe, MA, Specialist in School Psychology, LLP, and qualified mindfulness-based stress reduction (MBSR) instructor through Brown University.

ORGANIZATIONAL DEVELOPMENT (continued)

Interactive sessions cultivated a mindfulness practice to help team members manage pain, illness, stress, and make us better caregivers for those who need our help. Sessions included: Sitting Practice, Loving Kindness, Self-Compassion, and Sympathetic Joy.

Quick Reset: Wellness Wednesday Meditations

For GLWA team members who are short on time and in need of a quick reset, Blue Cross Blue Shield of Michigan hosted brief but impactful meditations, less than 10 minutes each, that focused on:

- Observing the Breath for Relaxation
- Mindfulness of the Senses
- Gratitude
- Workday Reset
- Setting Intentions



Blue Cross Blue Shield Drop 5 Virtual Weight-loss Community

Always an opportunity to learn and grow, the Blue Cross Blue Shield of Michigan wellness team did not disappoint GLWA team members. Current offerings included recipes and information to assist with daily life. The focal points were:

- Personalize Your Sleep Hygiene
- Dr. Dayna LePlatte Discusses Caregiver Self-care Tips to Avoid Burnout
- Dr. Gwendolyn Parker Discusses Colorectal Cancer
- One Week Physical Activity Minutes Challenge
- Researched Based Benefits of Walking 10,000 Steps (or Fewer) Per Day

MissionSquare Education Sessions

MissionSquare retirement plan specialists held virtual sessions open to all GLWA team members, as well as in-person one-on-one sessions at the Water Resource Recovery Facility (WRRF). GLWA team members were provided the opportunity to review their retirement goals and portfolio performance with MissionSquare Retirement Plan Specialists.



Training

During the month of February, 259 GLWA team members completed 15 safety courses and nine non-safety courses for a total of 206 instructor-led training hours.

ORGANIZATIONAL DEVELOPMENT (continued)

Staffing

The table below provides a breakdown of GLWA Team Members since the last CEO report:

Number of New Hires	8
Number of Separations	9
Total Staffing - Regular FTEs (YTD)	977

FINANCIAL SERVICES AREA

February 2023 Special Audit Committee

On Monday, February 13, 2023, GLWA held a special Audit Committee meeting focused on the proposed FY 2024 & FY 2025 biennial budget and proposed FY 2024 charges. Also at this meeting, staff introduced a request for a public hearing to support the GLWA FY 2024 Clean Water State Revolving Fund (CWSRF) Program project submittal and provided updates on the Business Inclusion and Diversity (B.I.D.) program, Charges Outreach and Modeling team efforts, and Affordability & Assistance team initiatives. In addition, copies of the December 2022 and January 2023 Procurement Pipeline were circulated.

February 2023 Regular Audit Committee Recap

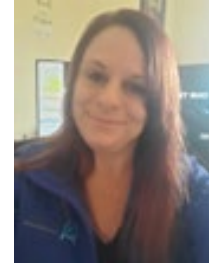
The most recent regular monthly Audit Committee meeting was held on Friday, February 24, 2023. The GLWA Audit Committee binders are publicly available at www.glwater.org/financials/. The meeting included the following topics.

- ✓ Review of proposed FY 2023 2nd Quarter Budget Amendments and a request to recommend those for Board approval.
- ✓ Introduction of a series ordinance authorizing the issuance of a GLWA Clean Water State Revolving Fund loan.
- ✓ Review of the October 2022 and November 2022 Monthly Financial Reports (Executive Summaries attached).
- ✓ Monthly updates on the Business Inclusion and Diversity (B.I.D.) program, Charges Outreach and Modeling team efforts, and Affordability & Assistance team initiatives.
- ✓ Review of the Quarterly Investment report through December 31, 2022, and the Gifts, Grants & Other Resources Report through January 31, 2023.
- ✓ Circulation of the latest Procurement Pipeline edition for February 2023.

FINANCIAL SERVICES AREA (continued)

Team Member Certification – Accounts Payable Specialist

Financial Services Area team member Theresa Turner recently received her Accounts Payable Specialist Certification from the Institute of Finance & Management. The Accounts Payable Specialist Certification demonstrates a firm grasp of accounts payable fundamentals, a thorough understanding of best practices, and a commitment to accuracy and compliance with focus in the following areas: invoices, payment issues, procurement and p-cards, manual payments, electronic payments, payment fraud, electronic payment fraud, vendor fraud, occupational (employee) fraud, the Internet and cybercrime. We applaud Theresa's efforts and appreciate her dedication to growing her professional skill set.



B.I.D. Program Update



A key goal of GLWA's B.I.D. Program is to support economic development throughout the region that we serve. One way that GLWA measures the impact of the B.I.D. program is by tracking and reporting on the number of awarded contracts to vendors located in GLWA's Member Partner Service area as well as certain economically disadvantaged areas within GLWA's Member Partner Service areas.

Since the date of the formal program launch in February 2021 through January 31, 2023, GLWA has awarded 58 contracts under the B.I.D. Program totaling \$717 million dollars. The breakdown shown in the table below highlights the number of contracts awarded to vendors located in GLWA's Member Partner Service area. Of the 58 contracts awarded under the B.I.D. Program requirements to date, 51 were awarded to vendors located in GLWA's Member Partner service area for a net total of \$526.5 million.

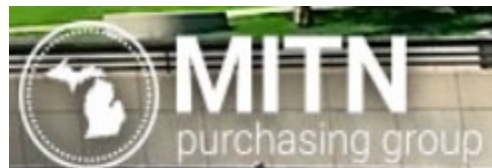
	Total Contract Count	Total Contract Amount (in millions)
City of Detroit	30	\$248.8
City of Auburn Hills	5	\$76.9
City of Novi	3	\$94.4
City of Livonia	3	\$59.6
City of Taylor	1	\$12.6
City of Troy	2	\$11.9
City of Southfield	2	\$6.3
City of Madison Heights	1	\$6.0
City of Warren	1	\$3.6
City of Farmington Hills	1	\$3.6
City of Riverview	1	\$1.9
Harrison Township	1	\$1.0
Total	51	\$526.5

FINANCIAL SERVICES AREA (continued)

GLWA also tracks the number of contracts awarded to vendors who have a business presence in an economically disadvantaged GLWA service territory area. This means the vendor is in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau. Of the 58 contracts awarded under the B.I.D. Program requirements to date, 30 were awarded to vendors located in an economically disadvantaged area, all of which were in the City of Detroit.

Michigan Intergovernmental Trade Network (MITN) Presentation

On February 17, 2023, GLWA Procurement team members Steven Vesschemoet (Management Professional) and Michael Lasley (Procurement Manager) shared GLWA's Vendor Performance Assessment (VPA) Program at the Michigan Intergovernmental Trade Network (MITN) monthly meeting.



MITN's monthly meetings provide procurement professionals from governmental agencies throughout the state of Michigan with the opportunity to network with peers, learn about new programs, and hear presentations from vendors. Steven and Mike's presentation provided an in-depth overview of GLWA's VPA Program and was attended by participants from over 35 agencies. The participants provided positive feedback and requested further information about the program.

GLWA's VPA Program was soft launched in October 2022. A VPA is a scored survey that documents a vendor's performance in fulfilling the contract requirements. Collecting this data enables GLWA Team Members to provide important feedback to both GLWA and vendors for future contract awards.

Charges Outreach & Modeling Update



In February, the Charges Outreach and Modeling team (CO&M) worked with cross-functional GLWA teams to wrap up the Charges Rollout process for FY 2024. This included having additional conversations with Member Partners regarding their proposed, and now approved, FY 2024 Service Charges. CO&M also worked quickly to mail final FY 2024 charge sheets to Member Partners after they were approved at the February 22 GLWA Board Meeting.

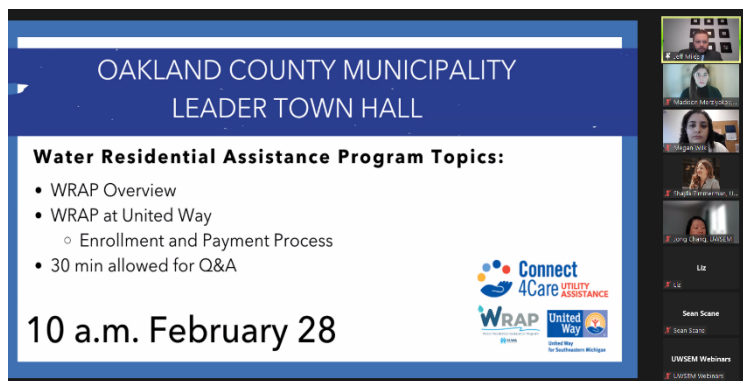
FINANCIAL SERVICES AREA (continued)

On Monday, February 27, 2023, CO&M was assisted by colleagues from the Financial Services Area to complete the process of mailing FY 2024 water and wastewater charge sheets to each Member Partner.

This group has been able to streamline the workflow to create a smooth process, getting this monumental task completed, and completed correctly, in record time. Thank you to the entire team for your hard work!

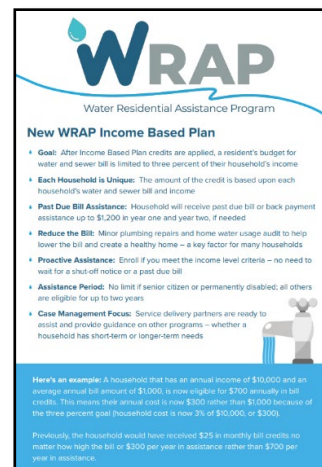
Affordability & Assistance Update

On February 28, 2023, GLWA participated in a virtual Townhall event hosted by United Way for Southeastern Michigan for municipality leaders in Oakland County. The event was attended by over 40 participants. Topics discussed included recent program improvements to the Water Residential Assistance Program (WRAP), the change to United Way as the new WRAP Service Delivery Partner for Oakland County communities, and details on how to best engage with United Way and WRAP. United Way also highlighted other assistance and programming services they offer.



On March 1, 2023, GLWA hosted a press conference and shared a subsequent press release formally announcing WRAP improvements that launched late last year. GLWA CFO & Treasurer Nicolette Bateson provided a history of WRAP and detailed the impetus for the WRAP Income Based Plan. GLWA Affordability & Assistance Manager Madison Merzlyakov described WRAP as it stands today, walking through the bill

credits, arrearage payments, and conservation measures households may be eligible for. Jeff Miles, United Way's Interim Vice President of Community Impact rounded out the press conference by sharing United Way's excitement in joining GLWA's team of WRAP Service Delivery Partners. The event was well attended by the media, representatives from Macomb Community Action, and Wayne Metropolitan Community Action Agency. Since the press conference, multiple news outlets have shared the news of the WRAP Income Based Plan.



FINANCIAL SERVICES AREA (continued)

Additional WRAP outreach materials were generated in preparation for the press conference. The Affordability & Assistance team in coordination with GLWA Public Affairs have published a [Frequently Asked Questions](#) document, a new [infographic](#) detailing the Income Based Plan, and a [tip card](#) summarizing program highlights. All materials can be found at www.glwater.org/assistance.

MGFOA Spring Seminar

On Friday, March 3, GLWA Chief Financial Officer & Treasurer Nicolette Bateson led a presentation highlighting the findings of the GLWA Economic Outlook Task Force at the Michigan Government Finance Officers Association (MGFOA) annual Spring Seminar in East Lansing, Michigan. The seminar was led by GLWA team member Kim Garland, who is currently serving as MGFOA President. The one-day event offered local government finance officers legislative and accounting standard updates, a keynote address by respected local journalists on Michigan politics and civility, a blockchain and crypto technology session, and an American Rescue Plan Act discussion.



**MICHIGAN GOVERNMENT
FINANCE OFFICERS ASSOCIATION**



Charges 101 Training

On Friday, March 10, 2023, GLWA Charges Modeling & Outreach Manager Matt Lane and GLWA Affordability & Assistance Manager Madison Merzlyakov provided an onsite training program to member partner participants at the City of Troy. The team provided historical context, walked through the charges development process, described the contract alignment process (CAP), shared an overview of WRAP and the recent program improvements, and answered a range of questions. Nine members of the City of Troy staff and two outside consultants attended. Bridgeport Consulting facilitated the session.

FINANCIAL SERVICES AREA (continued)

Procurement Pipeline

The February Procurement Pipeline edition is attached. This month's edition highlights GLWA's Fraud and Ethics Hotline, details regarding upcoming GLWA vendor outreach events, who to contact to arrange virtual vendor introduction meetings, and a listing of upcoming solicitations.

The General Counsel's March Report is an attachment to the Chief Executive Officer's Report

Respectfully submitted,



Suzanne R. Coffey, P.E.
Chief Executive Officer

SRC/dlr

Attachments

- October 2022 Executive Summary
- November 2022 Executive Summary
- February 2023 Procurement Pipeline



Key Financial Metrics

The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

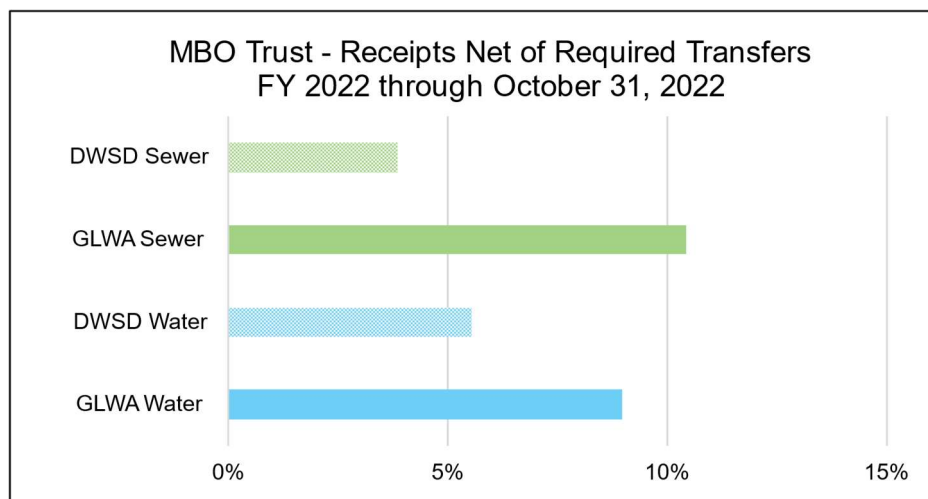
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. This report reflects first quarter FY 2023 budget amendments approved by the GLWA Board of Directors on October 26, 2022.

For the current period, wholesale water operations and maintenance, investment income, and sewer capital spend all reflect variances to budget outside the normal range. GLWA staff will continue to monitor these areas to see if additional budget amendments will be necessary. Investment income will begin to align with the amended budget as older investments are re-invested at higher interest rates as anticipated.

As of October 31, 2022					
Metric	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$122.5	\$122.5	\$123.6	1%	47
Wholesale Water Billed Usage (mcf)	5,384,000	5,384,000	5,447,000	1%	
Wholesale Sewer Billed Revenue (\$M)	\$91.6	\$91.6	\$91.6	0%	49
Wholesale Water Operations & Maintenance (\$M)	\$48.3	\$48.3	\$51.5	7%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$61.4	\$64.9	\$65.5	1%	
Investment Income (\$M)	\$0.8	\$5.8	\$4.7	-19%	36
Water Prorated Capital Spend w/SRA* (\$M)	\$51.8	\$65.0	\$65.3	0%	28
Sewer Prorated Capital Spend w/SRA* (\$M)	\$31.5	\$42.0	\$27.6	-34%	29

*SRA refers to the capital spending ratio assumption which allows capital program delivery realities to align with the financial plan.

Master Bond Ordinance (MBO) Trust Net Receipts (page 52)



Net cash flow receipts remain positive for GLWA Water and Sewer. This means that all legal commitments of the MBO Trust and the lease payment are fully funded – and that positive cash flow is available for additional capital program funding in

subsequent year(s). DWSD Water reports a surplus of \$2.0 million and DWSD Sewer reports a surplus of \$3.9 million of net receipts over disbursements through October 2022.

Budget to Actual Analysis (page 3)

- FY 2023 information includes the first quarter budget amendments which were approved by the GLWA Board on October 26, 2022.
- The total Revenue Requirements are on target through October 2022.
- The total overall Operations & Maintenance expenses are at 34.4% of budget through October 2022 which is slightly above the pro-rata benchmark of 33.3%. This negative variance equates to a dollar amount of \$3.8 million.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for October 2022 is \$37.4 million for the Water fund (28.4% of total revenues) and \$39.0 million for the Sewer fund (24.3 % of total revenues).
- Water Net Position increased by \$ 12.3 million, and Sewage Disposal Net Position increased by \$ 5.3 million for the year to date through October 2022.

Capital Improvement Plan Financial Summary (page 27)

- The Water system exceeds the originally approved 80% Capital Spend Ratio assumption.
- The Sewer system falls short of the originally approved 75% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 30)

- For October, transfers of \$13.7 million and \$19.0 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for October, transfers of \$6.0 million and \$6.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 36)

- Total cash & investments are \$570 million in the Water fund and \$624 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through October is \$4.7 million.

DWSD Retail Revenues, Receivables & Collections (page 40)

- Water usage through October 31, 2022 is at 107.85% and revenues at 103.33% of budget.
- Sewer usage through October 31, 2022 is at 105.85% and revenues at 103.23% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$48.3 million over the prior year.
- Past dues over 180 days make up 68.8% of the total accounts receivable balance. The current bad debt allowance covers 99.0% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 46)

- GLWA accounts receivable past due balance net of Highland Park is 9.37% of the total accounts receivable balance, with the majority of that balance related to one water account dispute currently under discussion.
- The Highland Park past due balance is \$55.1 million. It includes \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.4 million for water supply services. Highland Park made a catch-up payment of \$1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling \$634 thousand as of October 31, 2022.

Questions? Contact the Office of the Chief Financial Officer at CFO@glwater.org



Key Financial Metrics

The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

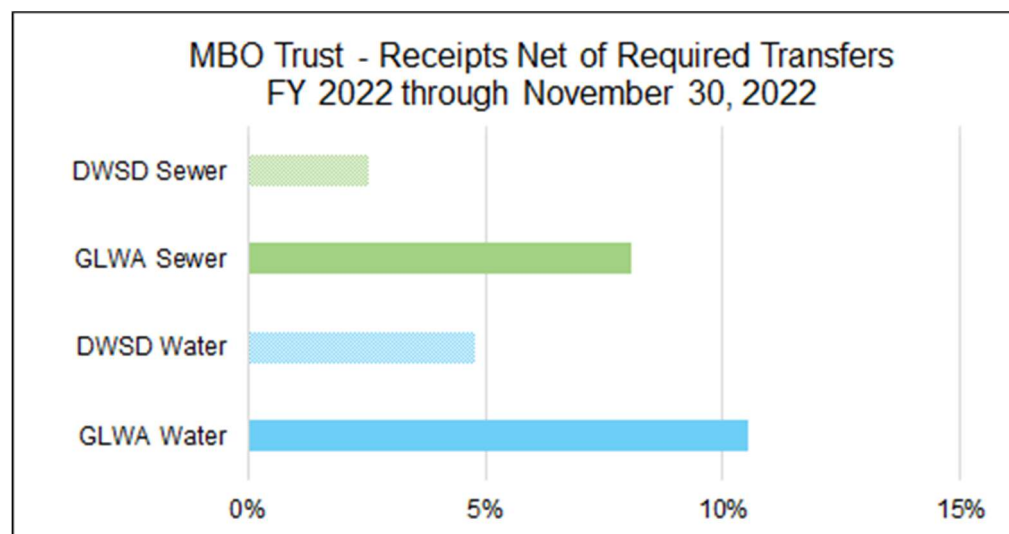
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. This report reflects first quarter FY 2023 budget amendments approved by the GLWA Board of Directors on October 26, 2022.

For the current period, wholesale water operations and maintenance, water capital spend, and sewer capital spend all reflect variances to budget outside the normal range. GLWA staff will continue to monitor these areas to see if additional budget amendments will be necessary.

As of November 30, 2022					
Metric	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$148.3	\$148.3	\$149.5	1%	47
Wholesale Water Billed Usage (mcf)	6,285,000	6,285,000	6,354,000	1%	
Wholesale Sewer Billed Revenue (\$M)	\$114.4	\$114.4	\$114.4	0%	49
Wholesale Water Operations & Maintenance (\$M)	\$60.4	\$60.4	\$63.0	4%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$76.7	\$81.2	\$81.7	1%	
Investment Income (\$M)	\$1.0	\$7.3	\$7.7	6%	36
Water Prorated Capital Spend w/SRA* (\$M)	\$64.8	\$81.0	\$87.5	8%	28
Sewer Prorated Capital Spend w/SRA* (\$M)	\$39.4	\$52.5	\$36.0	-31%	29

*SRA refers to the capital spending ratio assumption which allows capital program delivery realities to align with the financial plan.

Master Bond Ordinance (MBO) Trust Net Receipts (page 52)



Net cash flow receipts remain positive for GLWA Water and Sewer. This means that all legal commitments of the MBO Trust and the lease payment are fully funded – and that positive cash

flow is available for additional capital program funding in subsequent year(s). DWSD Water reports a surplus of \$2.2 million and DWSD Sewer reports a surplus of \$3.1 million of net receipts over disbursements through November 2022.

Budget to Actual Analysis (page 3)

- FY 2023 information includes the first quarter budget amendments which were approved by the GLWA Board on October 26, 2022.
- The total Revenue Requirements are on target through November 2022.
- The total overall Operations & Maintenance expenses are at 42.6% of budget through November 2022 which is slightly above the pro-rata benchmark of 41.7%. This negative variance equates to a dollar amount of \$3.2 million.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for November 2022 is \$42.6 million for the Water fund (26.7% of total revenues) and \$48.6 million for the Sewer fund (24.3 % of total revenues).
- Water Net Position increased by \$ 10.8 million, and Sewage Disposal Net Position increased by \$ 5.5 million for the year to date through November 2022.

Capital Improvement Plan Financial Summary (page 27)

- The Water system exceeds the amended 100% Capital Spend Ratio assumption.
- The Sewer system falls short of the amended 100% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 30)

- For November, transfers of \$13.7 million and \$19.0 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for November, transfers of \$6.0 million and \$6.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 36)

- Total cash & investments are \$564 million in the Water fund and \$654 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through November is \$7.7 million.

DWSD Retail Revenues, Receivables & Collections (page 40)

- Water usage through November 30, 2022 is 108.11% and revenues are 104.10% of budget.
- Sewer usage through November 30, 2022 is 105.43% and revenues are 102.48% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$49.5 million over the prior year.
- Past dues over 180 days make up 67.3% of the total accounts receivable balance. The current bad debt allowance covers 95.7% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 46)

- GLWA accounts receivable past due balance net of Highland Park is 9.22% of the total accounts receivable balance, with the majority of that balance related to one water account dispute currently under discussion.
- The Highland Park past due balance is \$55.2 million. It includes \$41.9 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.5 million for water supply services. Highland Park made a catch-up payment of \$1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling \$1.1 million as of November 30, 2022.

Questions? Contact the Office of the Chief Financial Officer at CFO@glwater.org

Welcome to the February edition of *The Procurement Pipeline*, a monthly newsletter designed to provide updates on doing business with the Great Lakes Water Authority (GLWA).

GLWA's Fraud and Ethics Hotline

GLWA is committed to transparency in all aspects of its operations and counts on its vendors, as well as team members and member partners, to help ensure that we meet this level of accountability.

To assist in this effort, GLWA has engaged CallsPlus, an independent, round-the-clock report intake service to investigate any concerns regarding unethical, illegal, or unsafe activity. Some common examples of such activities include, but are not limited, to the following:

- Harassment or bullying
- Discrimination
- Crimes and threats
- Ethics violations
- Theft of cash, goods, or services
- Use or sale of illegal drugs
- Vandalism

If a GLWA Vendor suspects that any activity is illegal or unethical, or that there is a potential for loss of health or danger to the public, they can call the toll-free GLWA Fraud & Ethics Hotline at **(888) 882-GLWA (4592)** or file a report online at <https://glwa.callsplus.net>. CallsPlus can be contacted with complete privacy, 24 hours a day, seven days a week, 365 days a year.

Each allegation will be documented by a professional interviewer. You have the option to report anonymously. Information will be relayed to GLWA for investigation or appropriate follow-up. All reports submitted to the Hotline will be handled promptly and discreetly, without retaliation.

GLWA encourages the Vendor community that if they see any activity they suspect is illegal or unethical then say something to help GLWA maintain a safe and ethical workplace for all.

Virtual Vendor Introduction Meetings

If you are interested in learning more about doing business with GLWA, contact us at GLWAVendorOutreach@glwater.org to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to any GLWA solicitation.

Where to Meet GLWA

GLWA attends vendor outreach events throughout southeastern Michigan. We welcome you to visit us at the following upcoming events.

- Michigan Department of Transportation (MDOT) 42nd Annual Small Business Development Conference. March 13-14. Double Tree Hilton in Detroit. 10am-5pm. Registration details [here](#).
- Wayne State Procurement Technical Assistance Center (PTAC) Meet the Buyers. March 29. Lift Detroit. 9am-12pm. Registration details [here](#).
- Michigan Public Purchasing Officers Association (MPPOA) Reverse Trade Fair. April 28. The Lansing Center, Lansing MI. 10:30am-3pm. Registration details [here](#).

Keeping up with GLWA

Our Chief Executive Officer (CEO) Monthly Report provides a wealth of information and news about important initiatives within GLWA's service territory that impact GLWA, its member partners, and the public. To read the January 2023 Monthly Report, please [click here](#).

What's Coming Down the Pipe?

Current Solicitations: Register in GLWA's [Bonfire Procurement Portal](#) for new solicitations and contract award information.

Upcoming Procurements: Next Three to Nine Months—See newsletter page 2.

Visit GLWA online!

To see the GLWA Vendor homepage, please visit www.glwater.org or contact us via email at procurement@glwater.org.

Upcoming Solicitations February 2023

Category	CIP #	Description/Project Title	Budget Estimate
Water System (next four to nine months)			
N/A			
Wastewater Systems (next four to nine months)			
Construction	211005.2	WRRF Pump Station 2 VFD Replacements	\$7,000,000
Construction	211005.3	WRRF Pump Station 2 Mag Meter Replacements	\$1,000,000
Construction	260802	WRRF Roofing Improvements	\$4,300,000
Construction	232002	Freud & Connor Creek Pump Station Improvements	\$75,000,000
Design-Bid-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Construction	211007	Pump Station No. 2 Bar Racks Replacement and Grit Collection System Improvements	\$82,000,000
Water System (next three months)			
Construction	170802	Reservoir Rehabilitation Construction Services Phase II at Waterworks Park, Northeast, and Booster Stations.	\$35,972,000
Wastewater (next three months)			
Construction	260209	Emergency and Urgent Sewer Repair II	\$12,400,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Construction	170904	Phase II Wholesale Water Meter Pit Rehabilitation and Replacement Project - 60 new meter sites	\$16,000,000
Professional	O&M	CSO Facility Accusonic Meter Maintenance	\$3,000,000
Professional	O&M	Engineering Staff Augmentation	\$7,000,000
Construction	222001	Oakwood District Intercommunity Relief Sewer Modification at Oakwood District	\$74,000,000
Construction	260905	WRRF Plumbing Shop Rehabilitation	\$2,300,000
Construction	260903	WRRF Front Entrance Rehabilitation	\$3,300,000
Professional Services	O&M	Service- All Pumps for CSO Facilities Three Year Contract with Two - One Year Renewals	\$2,200,000
Professional Services	O&M	Property and Casualty Insurance Brokerage and Ancillary Services	\$1,250,000
Professional	O&M	Grounds Maintenance Services	\$4,600,000
Professional	O&M	Electrical Services Contract	\$6,600,800
Professional	O&M	Motor Repair Contract	\$1,800,000
Professional	O&M	Pump Repair Contract	\$1,650,000
Professional	O&M	Instrumentation and Controls Contract	\$3,011,840
Professional	O&M	Scum Disposal and Hauling Contract	\$1,920,000
Professional	O&M	Electrical Maintenance Services	\$4,127,300.00
Construction	260510	Conveyance System Repairs- CSO Outfalls Rehabilitation - Phase 5	\$15,200,000.00

Vendors should continue to monitor [Bonfire](#) for solicitation updates.

Acronyms		
WRRF: Water Resource Recovery Facility	CSO: Combined Sewer Overflow	WTP: Water Treatment Plant

Office of the General Counsel – March 22, 2023

- ***Legislative Updates:*** The Office is also monitoring infrastructure spending bills at the federal and state level.
- ***Gordie Howe International Bridge:*** GLWA filed a notice of claim with the Court of Claims related to its relocation claim.
- ***June and July Rain Events:*** The Office is providing legal support in response to the significant rain events in June and July. Recently, the trial court dismissed most of the lawsuits against GLWA based on governmental immunity.
- ***Trenton Water Main:*** The Office is negotiating the transfer of the 24-inch water main to GLWA.
- ***Contract Negotiations:*** Office staff completed the Designated Management Agreement with SEMCOG. The Office is negotiating 30-year wastewater disposal services contracts with sewer member partners that do not have a model contract.
- ***Environmental and Workplace Safety Compliance:*** The Office continues to work with the COO and team leaders from both the water and sewer systems to comply with regulations and to respond to any alleged violations.
- ***Record Retention Policy:*** The Office is drafting a record retention policy for GLWA, which will be submitted to the State in the coming months.
- ***Industrial Pretreatment Program (“IPP”):*** The Office also continues to provide assistance on PFAS and PFOS matters.
- ***Real Estate:*** The Office is working to secure easements and acquire properties related to various water and sewer projects. Each real estate transaction will be presented to the Board for approval when they are fully negotiated.
- ***Member Outreach:*** The Office continues to be an active participant in Member Outreach sessions.
- ***Main Relocations:*** The Office continues to support water operations in its discussions with community stakeholders regarding water main relocations.
- ***Civil Litigation and Arbitrations:*** The Office continues to vigorously defend actions against GLWA, including a class action lawsuit regarding IWC charges. GLWA received a favorable

ruling against Highland Park in the 2014 litigation, restoring GLWA's judgment against Highland Park. In the 2020 case against Highland Park, the Michigan Court of Appeals denied Highland Park's leave application challenging the trial court order requiring Highland Park to pay 65% of its receipts to GLWA.

- **Labor Relations:** The Office continues to provide legal advice to Organizational Development on labor relations and employment matters.
- **Procurement:** The Office continues to assist GLWA's Procurement Team negotiate contracts, change orders and amendments and interpret contractual provisions. The Office is also assisting with the Procurement Policy's Procedures and updating GLWA's template contracts. The Office is part of a cross-functional team working to complete significant revisions to the GLWA construction contract, including consideration of using an entirely new contract format.

Statistics:

Contracts approved as to form:	50
Contracts drafted or revised:	173
Subpoenas/Information requests received:	5
Subpoenas/Information responded to:	3