



Office of the Chief Executive

735 Randolph Street, Suite 1900
Detroit, Michigan 48226

September 28, 2022

The Honorable
Board of Directors
Great Lakes Water Authority

RE: CEO Report – September 2022

Dear Chairperson Quadrozzi and Directors:

I would like to start my report this month with an update on the status of the break that occurred on the 120-inch water transmission main that occurred on August 13, 2022. I am pleased to share that the physical repair of the main has been completed and the 26 miles of pipe are now refilled with the required 81 million gallons of water from our Lake Huron Water Treatment Facility.

With the pipe refilled and repressurized, GLWA began working with the Michigan Department of Environment, Great Lakes and Energy (EGLE) to implement a flushing and disinfection plan. While flushing and disinfection of the main was first expected to be completed by September 21, due to the size and length of the pipe, as well as the technical nature of the process, GLWA is now expecting that it will take an additional six to 16 days to return the main to normal operations (October 5). We are so proud of our team members from throughout the organization who continue to work tirelessly to bring this issue to a close.

I want to thank everyone for their patience as we navigate this situation together. We know that extending the timeframe to return the transmission system back normal operations is further inconveniencing all the impacted communities and their residents, but it is necessary for us to ensure that we complete this repair in a way that safeguards the public health and the regional system. We will continue to share information with our member partners and the public through regular updates and I remain committed to interfacing with the media so that they can help us with our on-going transparency efforts.

Now I would like to move onto some excellent news in Finance. On August 30, 2022, GLWA executed a successful bond transaction at favorable rates to fund \$450 million in capital improvements for the regional water and wastewater systems, as well as secured \$2 million in cashflow savings by refinancing eligible wastewater system bonds. This bond transaction was preceded by GLWA earning positive rating outlooks from Fitch Ratings and Moody's Investors Service, as well as an affirmation of a "AA" category rating from the Standard and Poor Global Ratings.

The bond transaction focused on securing \$225 million to replenish funding for capital improvement projects for both the water and wastewater systems. Since January 2021, GLWA has utilized cash reserves to fund its capital program. Utilizing this pay-as-you-go approach over the last 20 months was an intentional effort outlined in GLWA's 10-year financial plan to decrease the overall debt burden and improve affordability.

In keeping with GLWA's focus on affordability, our Capital Improvement Planning team, along with the water and wastewater teams recently completed an extensive review of CIP projects and evaluated strategies and various scenario-building techniques to align the current project budgets with the target financial plans to complete the project scoring phase of FY 2024-2028 CIP development. The CIP team held multiple water and wastewater alignment sessions to make extremely difficult decisions to prioritize system needs while taking impacts on reliability, health and safety, operations, etc. into account.

As you know, over the last several years, GLWA has made a concerted effort to build relationships with our state and federal legislators to help ensure that we are considered as discussions occur about drinking water and clean water policies and appropriations. As a part of this on-going effort, Bill Wolfson, Randal Brown and I recently traveled to Washington, D.C., to meet in-person with several of our federal legislators. Over the course of two jam-packed days, we meet with a total of eight legislators on both sides of the aisle to discuss a broad range of topics, include PFAS, our aging workforce and opportunities for programmatic funding to address this, as well as our on-going request for funding for an Army Corps of Engineers study on climate change and its impact on the regional system. This is the first time GLWA has undertaken such a trip, and it certainly will not be the last.

I also made an appearance before the Macomb County Board of Commissions on September 14. The main purpose of this visit was to share information on how GLWA follows the Incident Command System when responding to major system issues, such as the recent 120-inch main break. It was a good opportunity for us to share our process and provide an update on the status of the 120-inch main being returned to service.

Since I mentioned workforce development in conjunction with our legislative visit to Washington, I also want to share with you two important updates related to this subject. First, I am proud to tell you about a new cohort for the Electrical Instrumentation Control Technician – Instrumentation (EICT-I) apprenticeship. The new cohort is scheduled to launch in January 2023. In support of this announcement, OD scheduled information sessions for interested candidates beginning the second week of September. As a reminder, GLWA hired 19 of the original 20 EICT-I apprentices, and we hope that this next cohort will be just as successful.

Next, as I am sure you all are aware, there is currently a very competitive job market both locally and nationally, and GLWA has experienced challenges recruiting qualified candidates for certain *Hard to Fill* positions. I am excited to share with you that we have launched ***1-2-3 Come Work With Me***, GLWA's first-ever team member referral program, which is designed to reward current GLWA Team Members who successfully refer applicants that are then hired for positions that GLWA has designated as *Hard to Fill*. Team Members can earn up to \$600 for each ***1-2-3 Come Work With Me*** applicant referral. I am really excited about this program and believe it will be a

good return on investment. Our team members can be our best advocates, and I think this program will assist in that area.

Staying in the recruitment and retention theme, I am very excited to share with you a new recruitment video created by our Public Affairs team, in partnership with Organizational Development (OD), featuring Candice Hobson, one of our team members at the Northeast Water Treatment Facility who started at DWSD as an intern while she was still in high school and has worked her way through the ranks to become a team leader at GLWA. The video shows that working for GLWA is not just a job, it's a fulfilling career. You can view the link to the video in the Public Affairs section of this report on Page 21.

Finally, I want you to know how our team members are sharing their knowledge and best practices with other utilities. Recently, we had a number of Water Operations team members presenting at the American Water Works Association-Michigan Section's annual conference. Those presenting included Manager Peter Fromm, on the options of replacement or rehabilitation in a project related to cast iron sluice gates, Engineer Vittoria Hogue, who presented on GLWA's ongoing corrosion control study, Management Professional Nicholas Hoffman who gave a talk on the innovative rehabilitation efforts underway in the Raw Water Tunnel leading into the Northeast Water Treatment Facility, Management Professional Nichol Sajdak, whose presentation was on proactive stress-testing treatment facilities for Harmful Algal Bloom (HAB) readiness, and COO Cheryl Porter who spoke on how GLWA is increasing system resiliency by strengthening relationships.

In addition, GLWA's Apprenticeship Program and One water Institute were recently featured by the Environmental Protection Agency (EPA) as a case study for other utilities. As a result of this feature, on September 21, 2022, Deierdre Weir, OD Director of Training and Development and Pat Butler, OD Manager, presented on these initiatives during the EPA's recent *"Creating the Water Workforce of the Future"* webinar.

I am extremely proud of everyone for being leaders in their individual fields and the water sector.

PLANNING SERVICES

Asset Management Group (AMG)

Asset Tagging Pilot

GLWA is excited to announce the completion of its Asset Tagging pilot project implemented as part of GLWA's Strategic Asset Management Plan (SAMP) Improvement Initiatives. The pilot included purchasing and testing a tagging printer and various label types and sizes, tag attachment processes, software training, and development of Asset Tagging Standards and Standard Operating Procedures.

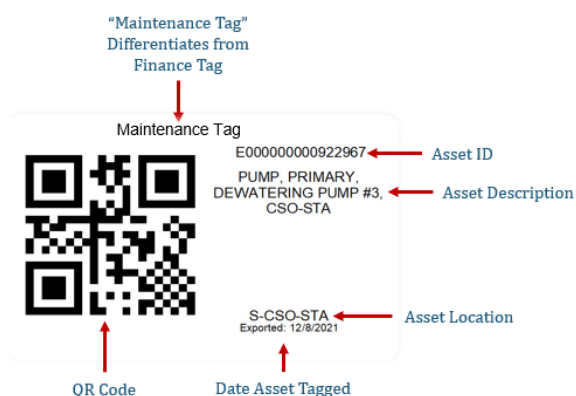
The pilot was conducted with cross-functional team collaboration between Water, Wastewater, IT, and the Enterprise Asset Management Group (EAMG) spanning over 12 months. It included identification of assets from both water and wastewater operations which were good candidates for testing multiple label sizes, materials and installation methods that meet resistance and readability requirements based on the asset location and environment.

Asset Type	Recommended Tag Placement	Recommended Tag Identifier (See Appendix B)	Backer Plate	Notes/Comments
Compressor		A	None	The QR Codes on the tags work even when they are attached to the asset surface in a circular pattern like the one shown in the picture here.
Dewatering Pump		A		Worked best just below the curved area.
Dewatering Pump		A		Tag attachment here was best for the position the pump was in.
Breach Sensor		A		The alignment of the tag over here worked best for the circumstances; the sensor was in a position where the front of it was much harder to access than the side.

Over 5,000 assets were tagged across the organization providing a strong foundation for finalizing Asset Tagging Standards and developing Standard Operating Procedures. An automated printing process was developed to reduce man-hours required to print tags and training team members on the new software.

Asset tags include Asset IDs, a brief description, asset location, and a QR code readable by mobile devices in anticipation of the technology available in NEXGEN, GLWA's new Enterprise Asset Management (EAM) system.

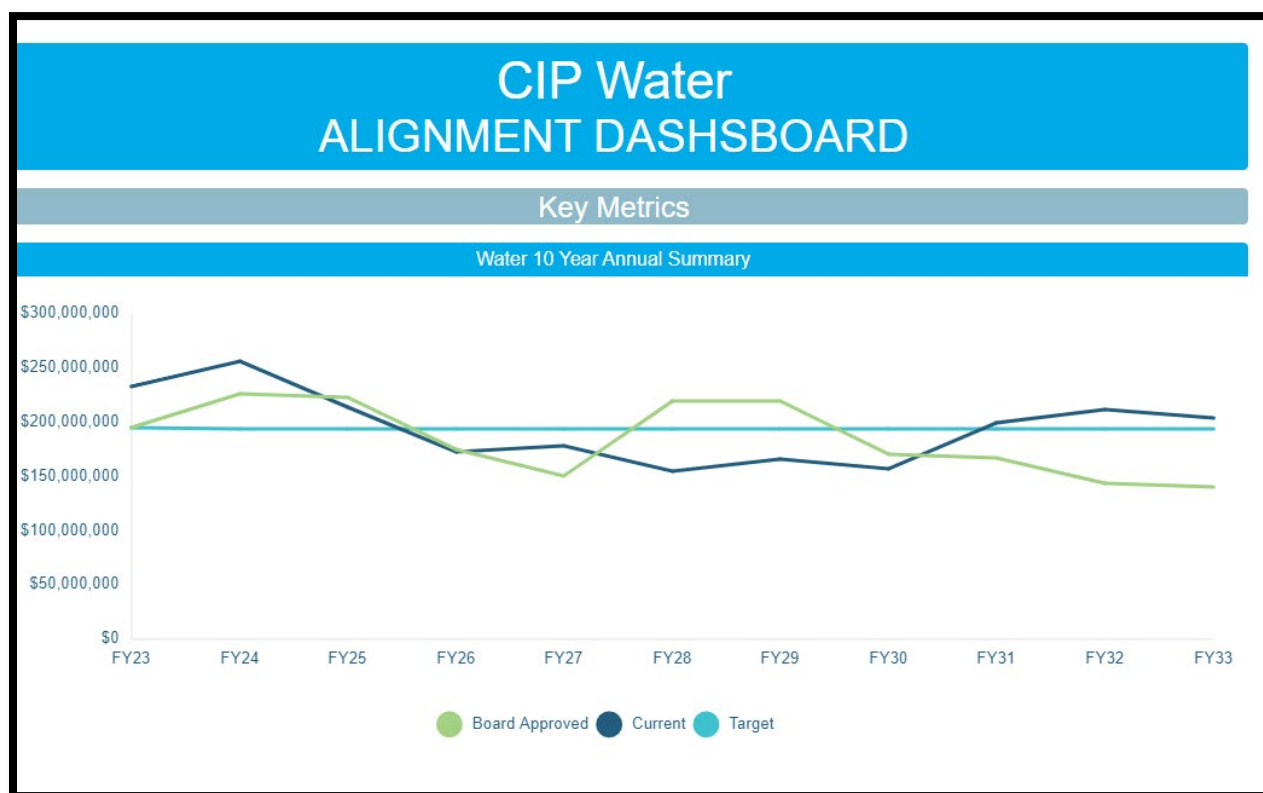
Additional printers and supplies have been purchased and a framework for tagging all current and future assets is under development. This pilot is another step in incorporating best practices in GLWA's asset management journey.



PLANNING SERVICES (continued)

Capital Improvement Planning Group (CIP)

August was an extremely busy month for the CIP Delivery Team. The CIP team along with the water and wastewater teams completed an extensive review of CIP projects and evaluated strategies and various scenario-building techniques to align the current project budgets with the target financial plans to complete the project scoring phase of FY 2024-2028 CIP development. The CIP team held multiple water and wastewater alignment sessions to make extremely difficult decisions to prioritize system needs while taking impacts on reliability, health and safety, operations, etc. into account. The CIP team is proud to announce, thanks to the entire CIP Delivery Teams, that the alignment process for FY 2024-2028 was significantly streamlined despite the magnitude of difficult decisions that occurred.



In August, the CIP team successfully added a new member to the team, Tiffany Oliver, who accepted an offer for employment as CIP and Asset Management Professional Administrative Analyst. Also, the CIP team wished Chandler Thomas, Intern, the best as he concluded his summer internship with GLWA, while Brandon Flaherty planned to continue his internship through the fall semester. Working with and mentoring interns has been an extremely rewarding experience to GLWA and the students. The CIP team is looking forward to continuing to grow and fill its open positions, including but not limited to Controls Manager, Schedule, and Budget Management Professionals.

PLANNING SERVICES (continued)

The CIP team is in the final stages of completing two Chapters, Risk and Quality within the Program Management Plan (PMP). The development of the “CIP Planning” chapter within the PMP has begun, which will set Standard Operating Procedures for the CIP process. These Standard Operating Procedures build upon and utilize data collection and reporting tools for a unified process for One Water, One Team!

Systems Planning Group

Water Analytical Work Group (AWG)

At the August 2 work group meeting, the AWG reviewed Units of Service and System Water Audit updates, which included a Wholesale-Retail sales demand comparison analysis and the calendar year 2021 Water Balance Update. In a discussion kicked off by Brad Shepler of HRC, members shared their experiences with Pressure Reducing Valves (PRVs), highlighting best practices and lessons learned.

Water Charge Methodology Review Subgroup

The Water Charge Methodology Review Subgroup met on August 5 to discuss whether to recommend that GLWA contract with an independent third-party charges consultant to 1) offer interviews to Member Partners to document themes related to community circumstances and priorities and 2) to document how other similar water systems charge their wholesale customers. There was unanimous consensus for the recommendation. The Subgroup also began cataloguing early ideas of potential methodology changes for future analysis. The Subgroup met again on August 19 to learn about the AWWA wholesale charge methodology, as well as about the rationale for GLWA's current water cost pool allocations.

Wastewater Best Practices

The Wastewater Best Practices Work Group met on August 10 to share about recent rain events; understand investigation findings from the June and July 2021 extreme rain events; and participate in a roundtable discussion with representatives of the City of Omaha, where a new CSO facility is soon to come online.

Communications & Education Work Group

On August 11, the Communications and Education Work Group met to review updates to the Water Residential Assistance Program (WRAP), intended to simplify the program, increase participation, and enhance water affordability. To provide input to continually improve WRAP, GLWA is also forming two WRAP Advisory Panels, one made of Member Partner representatives, and another made of community outreach stakeholders and social services subject matter experts. GLWA's Public Affairs team unveiled a new regional wastewater collection system video titled,

PLANNING SERVICES (continued)

[Where Does the Water Go?](#) and Mary Lynn Semegen, Water Quality Manager for GLWA, provided an update on GLWA's Surface Water Intake Protection Plan (SWIPP) grant-funded activities to support education, outreach, and management strategies for its three raw water intakes in 2022.

Watershed Hub Work Group

The Watershed Hub Work Group met on August 24 to discuss next steps related to documenting the support for the investigational grab sampling program under development and to outreach to second tier GLWA members and other stakeholders.

The Work Group also determined a process for meeting with key stakeholders to understand their preferences related to performance of program tasks.

System Analytics & Meter Operations (SAMO)

The System Analytics & Meter Operations group has been working with the Financial Services billing team to establish the Wholesale Automated Meter Reading Portal (WAMR) as the source of detailed meter usage information starting in FY 2022-2023. This project eliminated the need to maintain duplicate meter information in both the BS&A Utility Billing system and WAMR. It also gave the billing team more autonomy in extracting monthly usage information from WAMR and expanded reporting options to reduce reliance on manual spreadsheet tracking of usage data.

The Billing Team was able to successfully use WAMR to complete the new water billing process for the August 2022 monthly billing. The billing update in WAMR includes the following features, now completed by the billing team in WAMR.

- Manual entry of usage data for Member Partners or sites that are not master metered
- Creation of monthly consumption reports at the beginning of the month to aid in data validation
- Calculation of monthly consumption for each Member Partner using daily WAMR data
- Creation and export of monthly consumption summary files for each Member Partner
- Creation of a monthly consumption file with each account for upload into the BS&A Utility Billing system to assist in invoice creation

PLANNING SERVICES (continued)

Monthly Billing

Annual Billing

MDEQ

Reports

Input Data

Run Billing

Dates: 07/01/22 - 08/01/22

Accounts: All selected (87)

Billing Actions: View Billy Cycle Completion Status

Account Nbr	Customer	Consumption (MCF)	Bill Start Date	Status	Status Message
100-3041-W	AC	976.530	01-JUL-22	C	Script Completed
100-0001-W	AP	13302.670	01-JUL-22	C	Script Completed
100-0031-W	AS	4219.505	01-JUL-22	C	Script Completed
100-0171-W	BC	1493.154	01-JUL-22	C	Script Completed
100-0091-W	BL	3126.583	01-JUL-22	C	Script Completed
100-0151-W	BR	18293.308	01-JUL-22	C	Script Completed
100-3021-W	BU	553.068	01-JUL-22	C	Script Completed
100-0071-W	BV	1482.391	01-JUL-22	C	Script Completed
100-0191-W	CA	49637.686	01-JUL-22	C	Script Completed
100-0231-W	CH	24375.526	01-JUL-22	C	Script Completed
100-0211-W	CL	2977.071	01-JUL-22	C	Script Completed
100-0271-W	CM	16623.855	01-JUL-22	C	Script Completed
100-0251-W	CT	48340.075	01-JUL-22	C	Script Completed
100-3001-W	DB	56730.740	01-JUL-22	C	Script Completed
100-0291-W	DH	19736.300	01-JUL-22	C	Script Completed

Figure 1: Billing Screen in WAMR

		City of Southgate 100-2531-W				
METER INFO	PREVIOUS		CURRENT		CONSUMPTION	
SITE ID	DATE	READING	DATE	READING	CONSUMPTION	MCF
SG01A	07/01/22	919445	08/01/22	959311	39866	3986.60
SG01B	07/01/22	60615	08/01/22	63295	2680	268.00
SG03A	07/01/22	358664	08/01/22	366652	7988	798.80
SG03B	07/01/22	83667	08/01/22	86075	2408	240.80
SG04A	07/01/22	54354	08/01/22	282224	227870	8047.22
TOTAL CONSUMPTION (MCF): 13341.370						
Consumption may be reported per hundred cubic feet or cubic meters depending on the type of meter installed. GLWA converts billed consumption for all member partners to millions of cubic feet (MCF) using the following conversion factors. Unit Conversion Calculation Cubic Meters (CM) X .035315 = Million(s) of Cubic Feet (MCF) Hundred(s) of Cubic Feet (CCF) X 10 = Million(s) of Cubic Feet (MCF)						

Figure 2: Sample Bill

WASTEWATER OPERATING SERVICES

Wastewater Operations

Water Resource Recovery Facility (WRRF) operations complied with the Water Quality Standards for the month of August 2022.

Maintenance

The Maintenance team has been working on the rehabilitation of several pieces of equipment throughout the facility. The Dewatering Team has been systematically refurbishing the Complex II Belt Filter Presses. These presses were all placed into service around the same time and are all wearing at approximately the same rate. The wear of the Ultra High Molecular Weight Polyethylene (UHMW) components is causing premature wear of the belts in Complex II.

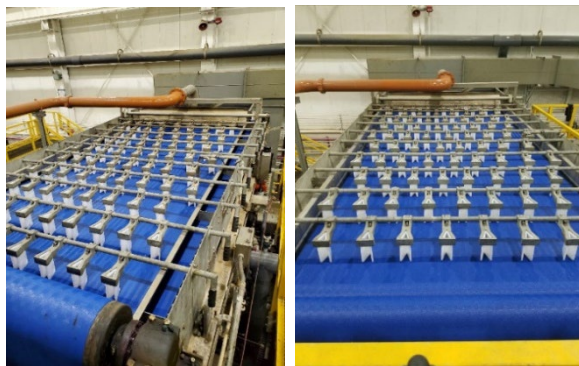


Photo: BFP 19 after being refurbished

The team is replacing all UHMW wear components (plows, doctor blades, belt supports) and replacing the belts, which will prolong the life of the belts in the future and maximize operational flexibility and redundancy in the Dewatering area.

The Primary Team is continuing to refurbish the Pump Station 2 bar racks. These refurbishments involve the replacement of chains, rakes, and sprockets as well as the inspection and replacement of bent bars in the lower part of the channel. Performing these refurbishments will also aid in maximizing operational flexibility and improvement of the overall reliability of the WRRF headworks. The photo on the right shows the Bar Rack 12 at Pump Station 2 with new racks and chains.



The Secondary Team identified numerous locations in their area requiring concrete repairs. These repairs were made proactively to prevent the concrete from degrading to the point of becoming a safety concern. These repairs not only improve the safety condition of the plant for the operators and maintenance staff who need to access the Secondary Clarifier B-Houses, but they also serve to enhance the overall aesthetics of the WRRF. Photos of a few locations of repairs shown to the right.



WASTEWATER OPERATING SERVICES (continued)

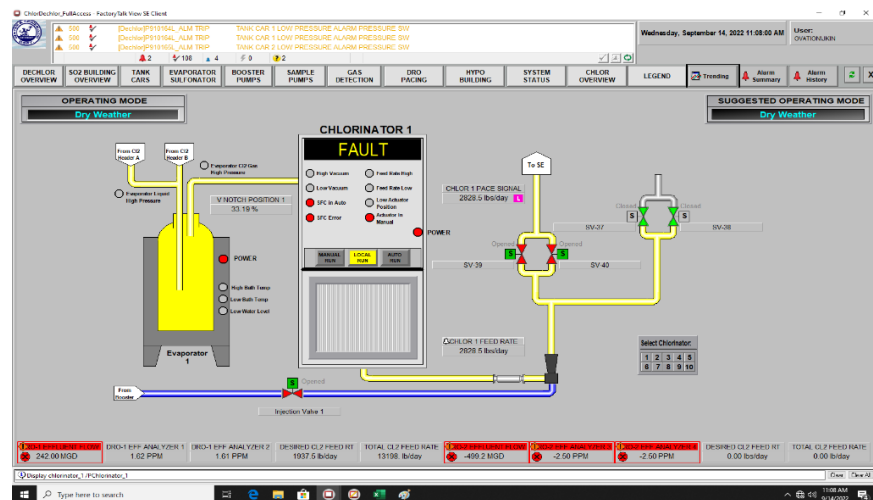
Process Control Center (PCC)

Disinfection Database, Graphics Improvements

A goal for the Process Automation and Control System (PACS) Team is to optimize the use of chemicals at the WRRF and CSO facilities. Optimization includes improved process control and minimization of costs.

The PACS Team added the v-notch valve position from the chlorinators and sulfimators into the Ovation System. The chlorinators and sulfimators are used to meter the quantity of chlorine and sulfur dioxide gas that is entered into the solution. These solutions are used to neutralize any pathogens in the WRRF effluent and to also limit the amount of excess chlorine discharged.

The v-notch valve is the control element that regulates the quantity of gas leaving the chlorinators and sulfonators. The valve position should strongly correlate to the flow of the gas. By adding the position to the Ovation database, the data will be collected and graphically represented. The PACS Team will then use the collected historical data to model the system using data analytic tools.



Updated Graphic with V-Notch Position

Lab Notification System

The PACS Team received a request to implement a lab notification system to prompt the chemists when a change in sampling is required based on process conditions. The team has completed the preliminary design and has placed an order for equipment and material to support this effort.

WASTEWATER OPERATING SERVICES (continued)

Laboratory

The Lab has accomplished the following during this reporting month:

- The Lab passed the Discharge Monitoring Report Quality Assurance Study 42 for all parameters.
- The Wet Weather Communication Board has been put into production. This will assist chemists in awareness of Primary Effluent and Rouge events to ensure proper sample collection.

Engineering & Construction

The Design Engineering projects:

CIP 211007, Contract 1904337 – Replacement of Bar Racks and Grit Collection System at Pump Station No.2.

Currently the project team is working on advanced planning for grit handling at the WRRF. This means that we are considering the future grit improvements project at Pump Station 1 right now, so the design solution is a holistic one that is not completed in a vacuum but considers future improvements and the ease of handling grit between both wastewater pumping stations at the WRRF. This advanced planning is looking at optimizing existing facilities at the WRRF and how the WRRF handles and processes grit overall. Design of the grit and screening improvements is continuing, and design for the grit handling will resume after the advanced planning phase is complete and the selected alternatives are confirmed.

CIP 211009, Contract 2002915 – Rehab of Circular Clarifier Scum Removal.

This project is currently in the study phase. The scum alternatives analysis draft technical memorandum was submitted at the end of August 2022. The team is currently coordinating an owner review of the alternatives analysis with Operations, Maintenance, and Engineering.

CIP 213006, Contract 2101915 – WRRF Improvements to Sludge Feed Pumps to the Dewatering Facilities.

The project includes improvements to the sludge feed pumping system. Improvements to the design for better operations and maintenance are planned. We anticipate taking this project to the Board for approval near the end of 2022 or beginning of 2023 depending on contract negotiations and the scope development agreement between GLWA and the consultant.

CIP 260802, Contract 2200443 (TOES Task 29T) – WRRF Roof Inspection and Design.

WASTEWATER OPERATING SERVICES (continued)

This project includes inspection of nearly all roofs at the WRRF. Assessment reports will be developed, and repairs or roof replacements will be prioritized. The highest priority roofs will have design documents developed for construction bidding later in 2022.

CIP 260903, Contract 2001464 (TOES Task 28T) – WRRF Front Entrance Rehabilitation.

This project includes modifications to the WRRF front entrance to improve facility security points, people and vehicle entrance points, vehicular traffic flow and patterns, parking access to GLWA personnel, GLWA contractors, GLWA visitors, and structural improvements to the surge basin. Final design for this project is anticipated in October 2022 and will be provided to Procurement shortly thereafter for construction bid advertisement.

CIP270001, Contract 2202509 – Pilot CSO Netting Facility.

This project is for engineering services to establish netting facilities for outfalls B03, B04, and B05. The RFP for this project is currently being developed, and we anticipate providing this to Procurement around the end of 2022.

CIP 270004, Contract 2011475 – Oakwood and Leib CSO Facilities Improvements.

This project is being kicked off in September 2022. The design consultant is presently developing BIM (Building Information Modeling) models for the Oakwood and Leib facilities and plans for engagement of GLWA Operations, Maintenance, and Engineering for the successful execution of this project.

CIP 270006, Contract 2200061 – CSO Facilities Improvements II.

Evaluation was completed and contact with the vendor is currently under way to provide clarifications on the scope and fee. Upon satisfactory resolution, we will begin negotiations and anticipate bringing this to the Board for approval around the end of 2022. This project is a result of CS-299 Facilities Assessment and includes various safety improvements at all CSO facilities, architectural improvements at all CSO facilities, and improvements to the St. Aubin chemical feed and screening systems as well as various support systems.

TOES 38T, Contract 2203014 – Conveyor System Fire Protection Improvements Pilot.

Resulting from TOES Task 16T, this project is currently in the RFP development phase to produce design documents that result in a pilot of the fire protection improvements recommended as a result of the study conducted under 16T. We anticipate providing this RFP to Procurement sometime in October 2022 for TOES advertisement.

Contract 2103706 – 2023 Task Order Engineering Services Contract.

Selections have been made and we anticipate bringing this 2023 TOES contract to the November or December 2022 Board Meeting for approval. We anticipate providing a Notice to Proceed in February 2023 and bringing to the Board the final TOES Amendment to the original contract, which extends the end date of the overall contract to six to twelve months past the last task. This allows a transition period for one contract to end and the other to begin and existing tasks to be completed within the original TOES contract.

WASTEWATER OPERATING SERVICES (continued)

The Construction projects:

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

The work under this contract is 38% complete. The contractor has recently completed the installation and pressure testing of the new segment of 12-inch ductile iron permanent thickened waste activated sludge bypass in the vicinity of Complex A. The disturbed yard pavement is being prepared for replacement concrete placement. The electricians are underway with the installation of grounding for the ferric chloride bulk storage tank containment area, with new controls and signal conduits from the Chemical Facility to new storage tank in preparation for system integration, startup, and commissioning. The photo shows preparation for new pavement in the yard outside Complex A.



CIP 260614, Contract 1902224 – CSO Facilities Structural Improvements Program.

Currently, the contractor is working at five CSO facilities. Sludge removal and assessment of the



influent channel at the Baby Creek facility are ongoing and estimated to be completed in September 2022 with the final inspection to be performed by Wade Trim. Pipe saddles demolition and replacement are ongoing at the Hubbell-Southfield facility. Sidewalk and concrete repairs at Seven Mile and St. Aubin facilities will be completed by the second week of September 2022. The skylight repair and other miscellaneous repair work are ongoing at the Belle Isle facility. The

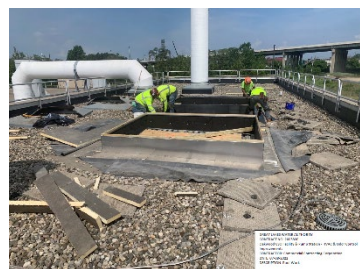


contractor is planning to visit the Oakwood facility to access sludge in the wet well for removal to perform the assessment. All priority-one repair items are completed, and 38% of priority-two repairs are completed to date.

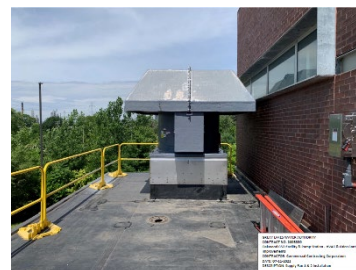
The contractor submitted a pricing proposal for chemical containment coating at the Conner Creek facility on August 30, 2022, and it is being reviewed by GLWA and PMA Consultants. The photos show work in progress at the Belle Isle facility (above left) and the Hubbell Southfield facility (above right).

CIP 260618, Contract 2003330 – Oakwood HVAC Improvements.

A change order will be processed soon for additional time and



money, mainly for replacement of Air Handling Unit-1 (AHU-1). The contractor is expected to submit the cost proposal for the AHU-1 replacement in a few weeks. The left photo shows odor control openings that have been increased in size. The larger opening will permit replacement of the carbon media for the odor



WASTEWATER OPERATING SERVICES (continued)

control units as intended per Operations and Maintenance. The right photo shows replaced Supply Fan No. 1. The fan was also relocated to the roof to take it out of a corrosive space to increase the life span and permit more simple and easy access for maintenance.

CIP 260623, Contract 2102618 – Baby Creek CSO Facility Screen Rehabilitation.

The base contract included provisions to supply parts to the contractor for the start of the work. However, the parts provided by the manufacturer require modifications currently preventing their use in the rehabilitation of the screens. Coordination with the screen manufacturer is currently under way to ensure all proper parts are received to begin this rehabilitation. As a result of supplier delays, this project may require an extension.

CIP 277001, 1902908 – Baby Creek Sediment Removal Project.

This project was approved by the Board in August 2022. GLWA is working to finalize the contract with the contractor and the Notice to Proceed is anticipated to be sometime in October 2022. This project includes design-build services for improvements necessary to remove sediment and debris from the outfall to permit structural inspection and repairs of the outfall and ensure long-term system integrity.

JOC 39, Contract 2004221 – Aeration Deck Repairs.

This project includes replacement of roof planks, concrete topping, and concrete repairs. The base contract work is completed. However, an inspection on Aeration Deck 4 in early August 2022 found some deck panels had failed and collapsed into the aeration tank. This contract or an emergency JOC task will be issued to fast-track repairs to Aeration Deck 4.

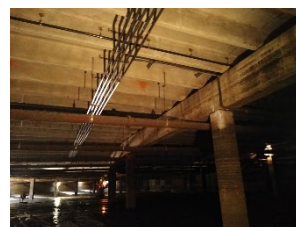
JOC 40, Contract 2002393 – Metering Building Repairs.

The scope of work includes removing the existing hatch cover, catwalk and conduit support and replacing them with new ones, relocating existing HVAC ductwork, sand-blasting and painting the Metering Building basement ceiling, walls, and the meter and meter piping. The contract's construction time has been extended to allow the contractor to correct the construction deficiencies. The contractor has removed a portion of the new catwalk to create a removable catwalk (see photo).



Contract 2100136 – Hubbell Southfield hanger replacement.

The purpose of this contract is to replace about 2,413 different sizes of corroded pipe hangers with stainless steel hangers to avoid corrosion in the future. There have been a few additional hanger types discovered as the project has gone on. This project is making good progress and is on schedule. The photo shown right, shows pipe hanger replacement work in progress at the North Basin.



WATER OPERATIONS

GLWA represented at MI-AWWA ACE22

The following 30-minute GLWA presentations were presented at the Michigan Section American Water Works Association (MI-AWWA) Annual Conference and Exhibits (ACE22) that took place September 13-16, 2022:

Peter Fromm, Manager in Engineering and Trevor Fournier (Kokosing Industrial) on *“Replacement or Rehabilitation of 9-ft x 12-ft Cast Iron Sluice Gates”*

Eric Kramp, Management Professional in Engineering and Dan Seider (Arcadis) on *“From 900 HP to 200 HP – Filter Backwash Elevated Towers”*

Vittoria Hogue, Engineer in Water Operations and Gwen Kubacki (Arcadis) on *“Designing a Representative Comprehensive Corrosion Control Study for a Complex System”*

Nicholas Hoffman, Management Professional in Engineering and Tony Raphael, P.E. (Ballard Marine) on *“Innovative Raw Water System Rehabilitation: BURT”*

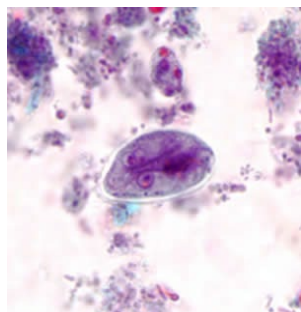
Nichol Sajdak, Management Professional for Water and Field Services on *“Proactive Stress-Testing Treatment Facilities for Harmful Algal Bloom (HAB) Readiness”*

Cheryl Porter, Chief Operating Officer for Water and Field Services on *“GLWA Increases System Resiliency by Strengthening Relationships”*

The conference was very beneficial as it promoted knowledge exchange, innovation, introduction of new technology, and networking.

Springwells Water Treatment Plant

Calculating Contact Time with Springwells Lab



*Image of
Giardia duodenalis cyst
from the
Center for Disease Control*

Unlike ozone, the use of chlorine as a disinfectant requires a certain amount of contact time (CT) with water to fully penetrate and destroy contaminants. Parasites like Giardia and Cryptosporidium, which infect the intestines of humans and animals, are most prominently spread through drinking water, causing severe intestinal distress, especially in the immunocompromised. These parasites are surrounded by an outer shell, or cyst, that requires a longer CT with chlorine than other contaminants to render it inactive. Because of this, there is a growing interest in ensuring that chlorine used in water treatment has an adequate CT with the water before it makes it to our customers' taps.

WATER OPERATIONS (continued)

In July, the lab at the Springwells Water Treatment Plant began working to calculate daily CT values based on the plant's detention times, baffling factors, and chlorine residual values analyzed by the lab throughout the day. While CT reporting is not required by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) until January 2023, Springwells lab is working together with EGLE to refine the calculation to make it as accurate as possible to prevent the spread of parasites through our drinking water. Thus, ensuring water of unquestionable quality.

Water Works Park Water Treatment Plant ***CLX Chlorine Residual Analyzer***

Water Works Park (WWP) instrumentation/SCADA technician installed three CLX Chlorine Residual Analyzer units manufactured by HF Scientific in the High Lift Pumping Station at WWP. The CLX replaced the CL500 Chlorine Residual Analyzers manufactured by Capital Controls. WWP installed these analyzers to optimize the water process at the plant. The analyzers are in the West Pit, Center Pit and East Pit in the High Lift Pumping Station. The CLX is mounted next to a CL17 Chlorine Residual Analyzer which is manufactured by HACH. These analyzers give us three isolated readings of chlorine residual at three different sections of the discharge header before the finished water enters the distribution system. The CLX chlorine analyzer is guaranteed to have an accuracy of 3% within a reading range of 0-6PPM for free or total chlorine.

WWP tested HF Scientific demo unit for 90 days looking for the analyzer accuracy, reliability, and durability. We tested and verified the accuracy of the analyzer chlorine residual results through grab samples which were analyzed by the chemist at WWP. The results showed that the CLX stayed within 1% of the grab sample and CL17 which was expected.

The CLX automatically analyzes for chlorine residual in the finished water cycling every 2½ minutes. The results are then displayed on a large digital display for viewing. The CLX require two reagents which is a buffer and indicator that have a five-year shelf life. The CLX is a more modern chlorine analyzer with smarter technology which will aid in troubleshooting and diagnosing a problem. The CLX performs continuous diagnostic monitoring with a self-check, which give us a warning of a problem before it occurs. This advance technology will help to diagnose problems which makes troubleshooting faster.



Figure 1: CLX Chlorine Analyzer

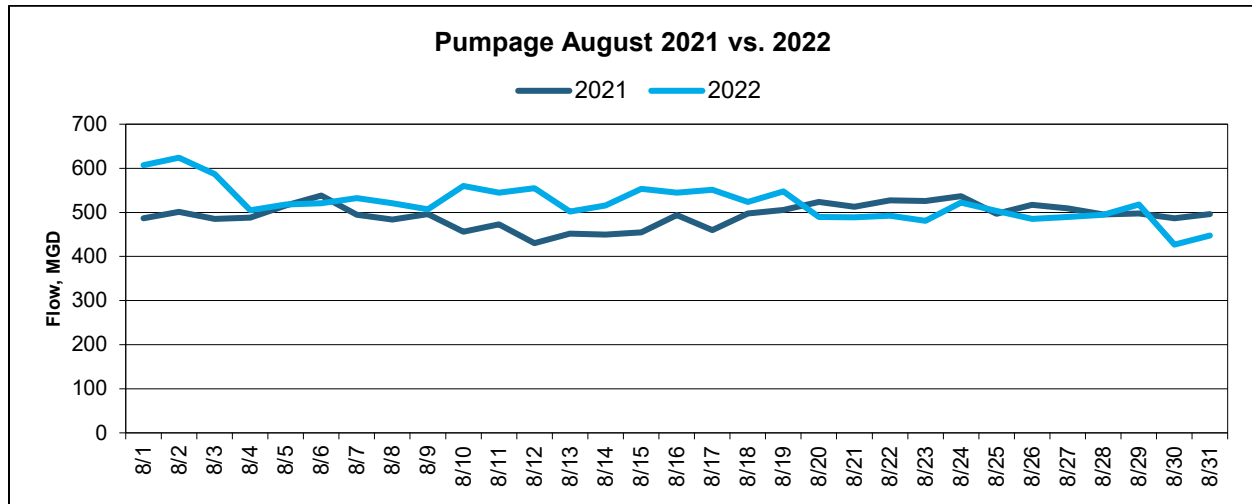


Figure 2: CLX Chlorine Reagents

WATER OPERATIONS (continued)

Systems Control Center (SCC)

August 2022 pumpage was 16% higher than August 2021



Energy, Research & Innovation

Research

Trial of a pipeline condition assessment technology at the 120" water main break

The Energy, Research & Innovation (ERI) team is supporting a trial of a condition assessment technology developed by PICA Corp., to determine the relative condition of the prestressed concrete cylinder pipe (PCCP) reinforcing wires adjacent to the 120" pipeline break in Port Huron.

GLWA has been supporting the development of the technology, along with the Tarrant Regional Water District (TRWD), to evaluate the application of the technology.



PICA was initially retained by TRWD, and several other utility sponsors, to determine if their technology could use “remote field” electromechanical exciters and sensors to distinguish and assess wire breaks caused by hydrogen embrittlement and wire breaks caused by corrosion. This initial testing was successful. However, this initial testing also led PICA to believe it could not only distinguish between the two types of wire breaks but could also detect loss of the “pre-load” on the cylinder. This is important because loss of pre-load indicates an impending loss of structural capacity distinct from a full wire break.

This new application uses “near field” electromechanical exciters and sensors to assess the condition of the reinforcing wires. This approach was possible because the previous patent on this process expired in March of 2022.

WATER OPERATIONS (continued)

ERI team member lead author of a significant new risk tradeoffs paper

Dr. Dienne Tolofari was lead author on a paper entitled “Disability-Adjusted Life Year Frameworks for Comparing Health Impacts Associated with Mycobacterium Avium, Trihalomethanes, and Haloacetic Acids in a Building Plumbing System,” which examined the health impact trade-offs between bacteria and disinfection byproducts in residential and premise plumbing systems.

To address trade-offs, prioritize, and manage the risks between microbial and chemical risks, the disability-adjusted life year (DALY) approach was utilized. The sampling data from cold and hot water building plumbing in Philadelphia, PA, revealed three classes of health stressors, nontuberculous mycobacteria, total trihalomethanes (THMs), and total haloacetic acids (HAAs). The concentration data specific to the water system were then used to estimate the annual risk due to the Mycobacterium Avium Complex (MAC), THMs, and HAAs. The study presents a framework for prioritizing among building plumbing microbial and chemical risks.

Ensuring water quality in building plumbing requires managing disinfection practices to address both chemical and microbial risks. The risk assessment procedure developed in the paper supports these management decisions by providing a basis to compare the health impacts of chemical and microbial hazards in drinking water.

The paper entitled “*Disability-Adjusted Life Year Frameworks for Comparing Health Impacts Associated with Mycobacterium Avium, Trihalomethanes, and Haloacetic Acids in a Building Plumbing System*” can be found at the following link:

[Disability-Adjusted Life Year Frameworks for Comparing Health Impacts Associated with Mycobacterium avium, Trihalomethanes, and Haloacetic Acids in a Building Plumbing System \(glwater.org\)](https://glwater.org/Disability-Adjusted-Life-Year-Frameworks-for-Comparing-Health-Impacts-Associated-with-Mycobacterium-avium-Trihalomethanes-and-Haloacetic-Acids-in-a-Building-Plumbing-System)

Facility Operations

Hurlbut Memorial Gate Repairs – Week 12, the contractor continues working on cleaning, patching, and tuckpointing the stone this week. They used a glass bead blast (gentle) to clean some of the more stubborn stains. When the Facilities Team met with Metropolitan Stone Carvers in Carleton, MI, they observed the eagle (Herbert) pieced together using the shattered remnants. Their artist was able to recreate approximately 90% of the eagle from the parts.

Once complete, it will be digitally scanned and electronically carved from one piece of Indiana Limestone. The artists will then hand chisel the fine detail work such as the feathers to create a new eagle from the 128-year-old eagle. They provided a tour of how they perform the process. The team toured CAN Artworks in Detroit where the metal light fixtures are being restored. With removal of the light fixtures and wiring, the metal is being repaired, as well as preparations being made to illuminate the lights using energy-efficient long lasting LED lights. The acrylic panels are being cleaned or replaced, rust is being removed and fixtures are being rewired.

WATER OPERATIONS (continued)

Facilities are asking WWP engineers to assist in removing debris stockpiled near the fence. Facilities also will be looking to trim up the tree and remove the weeds from the planting beds in preparation of this being completed in the fall.



This is the original Eagle assembled from hundreds of shattered pieces.



This is being used to carve the new Eagle.

INFORMATION TECHNOLOGY

In the past month, the IT Security Team has proactively blocked or thwarted 11,337 spam messages, 5,100 spoofed messages and 2 viruses. Additionally, 454 phishing attempts have been caught and 640 malware attempts have been blocked.

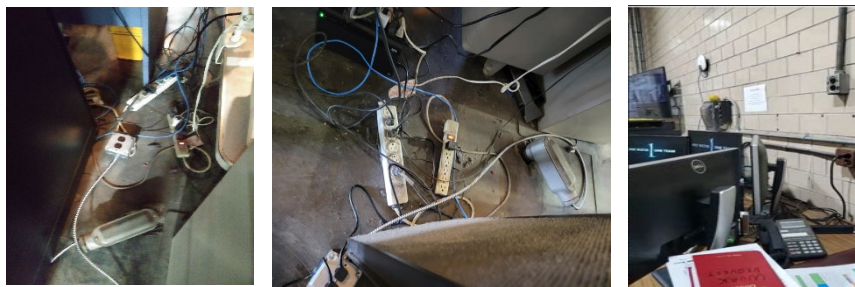
The IT Business Productivity Team, in concert with Organizational Development and Financial Services, has made significant progress in the Workday project. To date, over 30 requirements sessions have been completed, along with corresponding requirements workbooks. Additionally, planning is underway for configuration and testing. Workday will replace BS&A and Ceridian and related systems as a unified ERP solution that allows for greater process automation and improved cross-functional reporting.

The IT Infrastructure Team has continued to reduce GLWA's risk involving possible Ransomware attacks. The cloud backup project is moving forward, migrating our backups to the cloud to enhance our ability to recover all systems with as little data loss as possible in the event of a Ransomware attack.

The IT Customer Service Delivery Team in conjunction with the IT PMO, the IT Infrastructure Team, the Northeast (NE) Water Operations team, and the Facilities Team completed the NE Water Plant 5S Transformation office furniture replacement project in both the upper and lower control rooms.

INFORMATION TECHNOLOGY (continued)

Before Pictures: (below) shows multiple issues with power supplies, wiring, and work area clutter.



After Pictures: (below) Electrical wiring is neat, organized, and meets power and safety standards. Work areas are clear from clutter and provide a better work environment.



The IT Customer Service Delivery Team implemented Cherwell Mobile Self-Service Dashboard. This new functionality allows GLWA team members to submit and track their IT service tickets using any Android, iOS, or Windows mobile device, eliminating the need to connect an office personal computer (PC). The new mobile dashboard also allows IT support teams easier access to view tickets in their queue, provide timelier updates to requests, and manage their workloads all from within the mobile application.

The IT Enterprise Asset Management Systems Team, along with the Wastewater Laboratories team, developed a dashboard to assist the laboratories in determining and communicating if there are wet-weather conditions requiring additional sampling required by the Michigan Department of Environment, Great Lakes, and Energy. The dashboard is displayed in a common area of the laboratory on a TV screen to clearly communicate to the chemists and other team members if there is an active wet-weather event along with the past month of history of events.

Last Refresh Date/Time

09/06/2022 08:40 AM

Current PE Weather Status: Current RRO Weather Status:

PE Dry Weather

RRO Dry Weather

ID	Location	Calendar Date	Event Start Time	Event End Time	Wet Events This Week	Wet Events This Month
85	RRO	08/30/2022	8/29/22 8:38 PM	8/30/22 6:08 AM	2	4
84	PE	08/30/2022	8/29/22 8:16 PM	8/30/22 5:09 AM	2	10
85	RRO	08/29/2022	8/29/22 8:38 PM	8/30/22 6:08 AM	1	3
84	PE	08/29/2022	8/29/22 8:16 PM	8/30/22 5:09 AM	1	9
81	PE	08/25/2022	8/24/22 9:33 PM	8/25/22 4:00 AM	4	8
81	PE	08/24/2022	8/24/22 9:33 PM	8/25/22 4:00 AM	3	7
82	RRO	08/22/2022	8/21/22 8:52 PM	8/22/22 5:28 AM	2	2
80	PE	08/22/2022	8/21/22 8:34 PM	8/22/22 5:13 AM	2	6
82	RRO	08/21/2022	8/21/22 8:52 PM	8/22/22 5:28 AM	1	1
80	PE	08/21/2022	8/21/22 8:34 PM	8/22/22 5:13 AM	1	5
79	PE	08/21/2022	8/21/22 4:06 PM	8/21/22 4:09 PM	1	5
78	PE	08/21/2022	8/21/22 6:22 AM	8/21/22 3:47 PM	1	5
76	PE	08/09/2022	8/8/22 10:54 AM	8/9/22 1:58 AM	2	4
76	PE	08/08/2022	8/8/22 10:54 AM	8/9/22 1:58 AM	1	3
75	PE	08/04/2022	8/3/22 10:04 PM	8/4/22 7:56 AM	2	2
75	PE	08/03/2022	8/3/22 10:04 PM	8/4/22 7:56 AM	1	1



INFORMATION TECHNOLOGY (continued)

Currently, the IT PMO is managing 23 active projects and is processing two project requests.

PUBLIC AFFAIRS

Regular Cadence of Information Continues on the 120-inch Main Break

The Public Affairs team has continued to deliver consistent messaging and timely information to media outlets, member partners and the public in response to the 120-inch water main break near the Lake Huron Water Treatment Facility. The updates started just hours after the break on August 13 and continue to be posted to the emergency banner, news section and [120-Inch Main Break page](#) of the GLWA website to make it easy for people to find, as well as to all GLWA social media channels. The information updates consist of easy-to-digest bullet points of new information followed by a more detailed write-up. Along with distribution to the media, member partners and the public, all the latest information is also being distributed internally to GLWA team members. Public Affairs is committed to sharing more information as it becomes available, as well as photos of progress being made at the repair site.

New Recruitment Video

Public Affairs teamed up with Organizational Development to produce another video in the ongoing series of recruitment videos. This video features Candice Hobson, one of our team members at the Northeast Water Treatment Facility who started at DWSD as an intern while she was still in high school and has worked her way through the ranks to become a team leader at GLWA. The video shows that working for GLWA is not just a job, it is a fulfilling career.



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

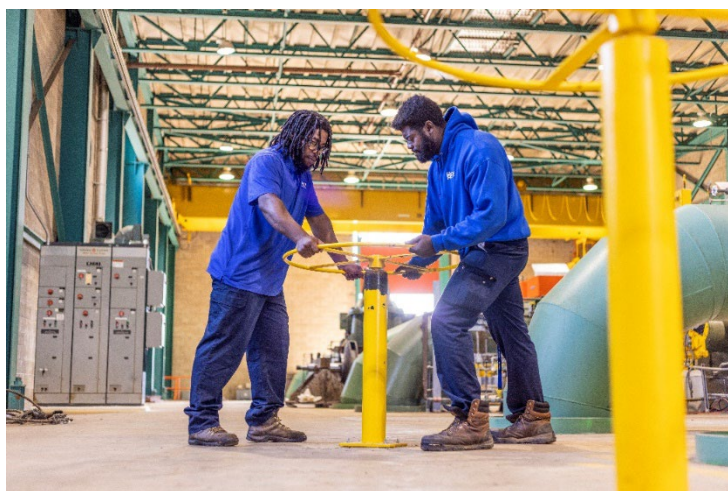
PUBLIC AFFAIRS (continued)

Logo Created for GLWA's New Team Member Referral Program

Public Affairs partnered with Organizational Development to design a logo for GLWA's new team member referral program being rolled out to encourage new hire referrals. The 123 Come Work With Me logo uses bright brand colors and minimal design make the logo lighthearted and engaging and will be used on documents and all collateral items related to the program.



Promoting GLWA's Diverse Workplace



GLWA was asked by the American Water Works Association (AWWA) to allow a photographer to come into the Authority's facilities to highlight GLWA's diverse workplace. Photos taken during the outing that occurred from August 30th – September 1st will be used to help ensure that AWWA's marketing materials feature the broad diversity of team members that work in the water sector. A special thanks goes out to Water Operations and Field Services team members who participated. AWWA said that they had

never had such a productive and exciting photo shoot before! AWWA will also be allowing GLWA to use all the photos in our materials at no cost to the Authority. Photo shown above left is a photo of two Field Services team members at the North Service Center.

MI-AWWA Video Content

This month the Public Affairs team helped the Michigan Section-AWWA by providing content for this year's MI-ACE conference. The team recorded a testimonial from Northeast Water Treatment Facility plant manager Lashone Bedford about her experience as a member of MI-AWWA and the benefits of being a part of a water-sector organization for attendees of this year's conference. The team also recorded content to help explain how to use the mobile app for this year's conference with MI-AWWA Chair Aaron Uranga.

SECURITY AND INTEGRITY

The Hazmat Unit coordinated and completed a total of 230 hours of training during the month.

The Security and Integrity Group continues to participate in the regular Emergency Operations Center's ongoing COVID-19 Pandemic briefings.

SECURITY AND INTEGRITY (continued)

The Group continued to assist the Water Operations team on the 120-inch water main break in Port Huron.

The Group conducted a site visit to the Southwest Water Plant to begin planning scenarios for the upcoming tabletop exercise with the plant staff.

Lastly, the group began finalizing our Emergency Alert notification draft letter for leadership discussion.

ORGANIZATIONAL DEVELOPMENT

Apprenticeships

On August 3, 2022, Organizational Development Manager, Patricia Butler, was a guest panelist and speaker at AWWA's Transformative Issues Symposium in Cincinnati, OH. The topics included apprenticeships, community partnerships, and hiring a diverse workforce.

On August 29, 2022, GLWA's Organizational Development (OD) team hosted the State of Michigan's Labor and Economic Opportunity – Workforce Development group and Focus: HOPE at Water Works Park (WWP). The meeting was in support of the Michigan Industry Cluster Approach (MICA) 3.0 grant awarded to Focus: HOPE in November 2021. GLWA supports the grant by assisting with the grant deliverables including:

- Leading the Employer Led Collaborative (ELC)
- Leading the Talent Pipeline Academy approach to talent supply
- Providing apprentice candidates

The meeting included a meet and greet with two current apprentices, Joshua Walker, EICT-EA, and Terrell Dockery, Maintenance Technician-A; one apprentice graduate, Yolanda Presley, SCADA Technician; Bill Wolfson, CACO; Terry Daniel, Water Operations Director; Adino May, OD Management Professional, and OD Manager, Patricia Butler. Andrae Savage, WWP Plant Manager, took the group on an engaging facility tour.

Organizational Development announced a new cohort for the Electrical Instrumentation Control Technician – Instrumentation (EICT-I) apprenticeship. The new cohort is scheduled to launch in January 2023. In support of this announcement, OD scheduled information sessions for interested candidates beginning the second week of September.

Apprentices continue to perform well and meet all related training instruction and on-the-job learning requirements.

EICT-E Apprentices

The electrical apprentices rotated to their new work location on Tuesday, September 6, 2022.

ORGANIZATIONAL DEVELOPMENT (continued)

Maintenance Technician Apprentices

Maintenance Technician Apprentices began plumbing classes as guest students at Macomb Community College on Monday, August 22, 2022.

Internship

The Summer Internship Program concluded on September 2, 2022. At the leadership team member's request, five interns will continue working with GLWA beyond the summer program. Post internship surveys were distributed to the interns and their leadership team members.

Talent Management

Staffing

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

Number of New Hires	17
Number of Separations	8
Total Staffing - Regular FTEs (YTD)	963

Benefits and Wellness



MissionSquare Retirement Plan Specialists On-site! *MissionSquare* held education sessions on-site and virtually at the Lake Huron Water Plant and the Water Resource Recovery Facility (WRRF) in September. Retirement Plan Specialists also held one-on-one consultations with team members to review their individual goals and portfolio performance.

No Copays for Bright Horizons Back-Up Care™ in September! Bright Horizons provides back-up childcare in high-quality centers or in a team member's own home, and in-home care for adult and elder loved ones. Additionally, when Bright Horizons network services are unavailable due to gaps in network coverage, team members can now receive reimbursement of \$100/day for each use. Each reimbursed use counts as one back-up care use.



ORGANIZATIONAL DEVELOPMENT (continued)

Experienced Tutors Available! Team members can also use their back-up care benefit to schedule time with an experienced tutor for themselves or for their child.



Dell offered an exclusive two-day deal providing team members an additional 10% off select personal computers. Also, the Dell Preferred account allows team members to now pay over time with low, monthly payments, up to 12 months special financing.

The Purchasing Power has updated eligibility for team members with less than one year of GLWA service. All new team members, and those who have not yet reached the one-year eligibility requirement, can now immediately access a \$250 spending limit. Purchasing Power offers over 15,000 products under \$250, that team members will be able to purchase right away using payroll deduction. Once a team member reaches one year of employment with GLWA, their full spending power will be unlocked.



Training

During the month of **August**, **207** GLWA team members completed **32** safety courses and **10** non-safety courses for a total of **396.5** instructor-led training hours.

FINANCIAL SERVICES AREA

Successful Bond Transaction, Positive Ratings Action, and New Project Funding

On August 30, 2022, the Great Lakes Water Authority (GLWA) executed a successful bond transaction at favorable rates to fund \$450 million in capital improvements for the regional water and wastewater systems, as well as secured \$2 million in cashflow savings by refinancing eligible wastewater system bonds.

In advance of the bond transaction, GLWA earned positive rating outlooks from two of three rating agencies, as well as an affirmation of a “AA” category rating from the third rating agency:

- ✓ Fitch Ratings moved the outlook to Positive from Stable for the wastewater system and affirmed outstanding water and wastewater systems debt at A+ Senior/A Second Lien;
- ✓ Moody’s Investors Service moved the outlook to Positive from Stable for both the water and wastewater system and affirmed outstanding debt at A1 Senior/A2 Second Lien;
- ✓ Standard & Poor Global Ratings affirmed its outstanding water and wastewater system debt at AA- Senior/A+ Second Lien with a Stable outlook.

FINANCIAL SERVICES AREA (continued)

Commentary within the Moody's credit opinion noted, "The outlook is positive because the Authority has strong management and stable operations and its underlying service area continues to improve, particularly in the City of Detroit, as well as across Wayne (A3 positive), Oakland (Aaa stable) and Macomb (Aa1 stable) Counties."

Consistent with the ten-year financial plan, the bond transaction secured \$225 million to replenish funding for capital improvement projects for both the water and wastewater systems (total of \$450 million). Since January 2021, GLWA has utilized cash reserves to fund its capital program. Utilizing this pay-as-you-go approach over the last 20 months was an intentional effort outlined in the long-term financial plan to decrease the overall debt burden and improve affordability.

The tax-exempt bonds were issued with a true interest cost of 4.44 percent for the water system and 4.57 percent for the wastewater system. Despite recent market volatility, these bonds are being issued during an era of historically low rates. Over the past 32 years, benchmark rates have only been lower 34 percent of the time.

Market conditions provided the opportunity to refund nearly \$18 million in outstanding wastewater bonds as outlined in the plan of finance. The refinancing of this debt resulted in nearly \$2 million in cashflow savings. Added to prior GLWA transactions, the Authority has garnered more than \$720 million in cashflow savings from refunding transactions since January 1, 2016, as a result of an opportunistic refinancing program that has taken advantage of market conditions and GLWA's improving credit ratings.

GLWA is appreciative of the strong investor interest resulted in a successful bond transaction, even on a challenging day of volatility within the financial markets. The transaction attracted orders from 37 unique institutional investors, including 14 investors that did not participate in GLWA's 2020 bond transaction. In addition, retail orders were placed on behalf of several individual retail investors.

Since GLWA's bonds were sold at a premium, the par value of the bonds for both systems totaled approximately \$418 million. In aggregate, \$574 million in orders were received for the \$418 million in par bonds, meaning investor demand exceeded available bonds in aggregate by 1.4 times.

Securing this funding allows GLWA to remain focused on our top priority, which is improving resiliency in the regional system in order to ensure we continue to provide reliable service to our member partner communities and underscores our commitment to fair and equitable charges.

A full report from the financing team was presented to the Audit Committee and will be presented to the Board.

FINANCIAL SERVICES AREA (continued)

August 2022 Audit Committee Recap

The most recent Audit Committee meeting was held on Friday, August 26, 2022. The GLWA Audit Committee binders are publicly available at www.glwater.org. The meeting included the following topics.

- ✓ An update on the then upcoming Water and Sewer bond transaction that will provide 450 million in new funding to support the GLWA capital improvement plan.
- ✓ Approval of a new WRAP policy establishing the overall purpose, mission, vision, and objectives of the program.
- ✓ Review of the May 31, 2022, Monthly Financial Report (Executive Summary attached).
- ✓ A monthly update on the Business Inclusion and Diversity (B.I.D.) program.
- ✓ Review of the Quarterly Investment report and the Quarterly WRAP report through June 30, 2022.
- ✓ Circulation of the latest Procurement Pipeline.

Vendor Outreach



Last month, Michael Lasley, Tina Clinkscales, and Megan Savage attended the 2022 NIGP (National Institute for Governmental Purchasing) Annual Forum and Products Exhibition in Boston, Massachusetts. The NIGP's Annual Forum is the largest North American educational conference designed exclusively for individuals in public procurement.

During this year's four-day conference, which gathered an in-person audience for the first time since the COVID-19 pandemic, Michael, Megan, and Tina attended a variety of plenary sessions and small group workshops where they had the opportunity to connect with public procurement professionals from across the country and Canada to share experiences, challenges, and best practices. In addition, the NIGP Products Exhibition enabled Forum participants to discover and preview new products and services from nearly 200 government suppliers.

The NIGP is an international association established in 1944 that develops, supports, and promotes the public procurement profession. Serving as the trusted advisor to more than 3,000 public procurement agencies, including GLWA, the NIGP counts more than 16,000 public procurement professionals throughout North America as members.

FINANCIAL SERVICES AREA (continued)

Affordability & Assistance Update

Water Residential Assistance Program – Income Based Plan

The Affordability & Assistance Team is working closely with service delivery partners, Wayne Metropolitan Community Action Agency and Macomb Community Action to roll out the Water Residential Assistance Program – Income Based Plan, also referred to as “WRAP IBP”.

Households can enroll in the WRAP IBP beginning in October and will offer bill credits based on the annual household water bill as a percentage of household income. Existing clients will also be enrolled in WRAP IBP this Fall and will be contacted by their respective service delivery partner to initiate the process.

WRAP Advisory Panel

The Member Partner WRAP Advisory Panel held its first meeting on August 23, 2022. The session had great turnout and representation from member partner communities, with over 30 participants.

The group walked through the new Board-approved WRAP improvements and detailed the topics that will be discussed in future sessions, such as billing practices, building awareness of WRAP, program administration and support, as well as WRAP effectiveness. The session ended with six communities volunteering to walk through their billing processes to identify pinch points within the current process and identify potential solutions. GLWA has engaged Plante Moran to assist with this effort.



Flint Water Assistance Panel Podcast

On Saturday, September 3, 2022, GLWA’s Chief Financial Officer & Treasurer, Nickie Bateson had the unique opportunity to participate in a podcast hosted by one of GLWA’s own Board Members, Dr. Beverly Walker-Griffiea. The podcast focused on WRAP in the City of Flint. Ms. Bateson was joined by Flint Treasurer, a representative from Wayne Metropolitan Community Action Agency and a Flint resident currently receiving services through WRAP.

This was a great opportunity to help spread the word regarding WRAP in Flint, as well as demonstrate the collaborative partnerships between GLWA, City of Flint and Wayne Metro to serve Flint residents. Links to the podcast will be posted on the WRAP page of the GLWA website when available.

Michigan Public Service Commission’s Low-Income Workgroup

On September 8, 2022, Affordability & Assistance Manager, Madison Merzlyakov presented at the



Michigan.gov |

Michigan Public Service Commission

FINANCIAL SERVICES AREA (continued)

Michigan Public Service Commission's Low Income Workgroup meeting regarding WRAP. The group was formed to identify and address low-income specific energy issues and bridge gaps between program offerings. Participants are from state agencies, utility providers and other stakeholder groups. This group's primary interest was in the conservation aspect of WRAP and how members of this group may be able to work together to promote and expand the conservation efforts. Numerous participants have followed up to learn more about the program, as well as engage in a Stakeholder WRAP Advisory Panel that will be launched.

WRAP Townhall for Member Partners

Looking ahead, the GLWA Affordability & Assistance team with support from Member Outreach will host a virtual WRAP Townhall Meeting for Member Partners on October 27, 2022. The purpose of this forum will be to share additional details related to the WRAP IBP as well as the other improvements that have recently been made to the program. Member Partners will have the opportunity to learn more about the program, how they can help support it, as well as voice any questions they may have. Member Outreach will send a formal invitation soon. For more information, contact WRAP@glwater.org.

Michigan Government Finance Officers Association (MGFOA) – Fall Institute

In September, four members of the GLWA Financial Services Area were able to attend the MGFOA Fall Institute in Grand Rapids, Michigan. Matt Lane, Michelle Burt, Kathy Smith-Roy, and Kim Garland along with 230 colleagues from around the state attended helpful sessions ranging in topic from important accounting and reporting updates to recent legislation impacting municipal finance.



As GLWA's new Charges Outreach and Modeling Manager, Matt was able to connect with several member partner finance managers. As GLWA's new Charges Outreach and Modeling Manager, Matt was able to connect with several member partner finance managers and their team members that he will

soon be working with on charges rollout. Michelle was able to meet in person with members of

FINANCIAL SERVICES AREA (continued)

the MGFOA Accounting Standards Committee on which she serves. Kim presented on the topic of Water & Sewer Rate Setting alongside Detroit Water & Sewerage Department Chief Financial Officer Istakur Rahman. And Kathy was recognized in the general business meeting for her ongoing contributions to the organization and as an honorary life member.

Procurement Pipeline

The September Procurement Pipeline edition is attached. This month features background regarding the addition of vendor diversity certification options to the Bonfire Procurement Portal, the process for setting up virtual vendor introduction meetings, notice of the lifting of GLWA's COVID-19 mask mandate for facilities and project worksites, as well as the monthly listing of upcoming solicitations.

The General Counsel's August 2022 Report is an attachment to the Chief Executive Officer's Report.

Respectfully submitted,



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

SRC/dlr
Attachments

- May 31, 2022 Financial Report (Executive Summary)
- September Procurement Pipeline
- General Counsel September Report

Key Financial Metrics

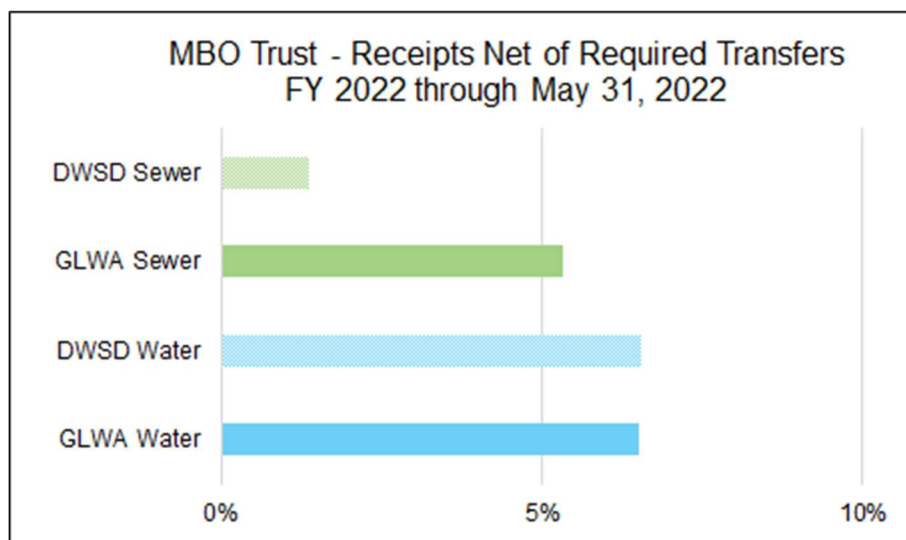
The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

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. To address the wholesale water revenue shortfall, a first quarter budget amendment was approved for \$2.4 million. Capital spend is less than the total Capital Improvement Plan (CIP); an amendment is under consideration.

As of May 31, 2022					
Metric	FY 2022 Budget	FY 2022 Amended Budget	FY 2022 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$299.0	\$296.6	\$294.5	-1%	48
Wholesale Water Billed Usage (mcf)	12,215,000	11,995,000	11,755,000	-2%	
Wholesale Sewer Billed Revenue (\$M)	\$248.8	\$248.8	\$248.8	0%	50
Wholesale Water Operations & Maintenance (\$M)	\$131.9	\$131.9	\$117.7	-11%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$166.2	\$175.9	\$172.4	-2%	
Investment Income (\$M)	\$2.8	\$3.5	\$3.3	-5%	37
Water Prorated Capital Spend w/SRA* (\$M)	\$124.0	\$124.0	\$145.0	17%	29
Sewer Prorated Capital Spend w/SRA* (\$M)	\$72.8	\$72.8	\$60.5	-17%	30

*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 54)



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 \$6.1 million and DWSD Sewer reports a surplus of \$3.6 million of net receipts over disbursements through May 2022. On August 26, 2021, the DWSD Board of Water Commissioners proactively adopted budget amendments to address potential shortfalls for FY 2022. These budget amendments are reflected in this May 2022 report.

The current DWSD loan receivable balance for fiscal year 2018 is \$702 thousand.

Budget to Actual Analysis (page 3)

- FY 2022 information includes the fourth quarter budget amendments which were approved by the GLWA Board on June 22, 2022.
- The total Revenue Requirements are on target through May 2022.
- The total overall Operations & Maintenance expenses are at 86.4% of budget through May 2022 which is reasonable within the pro-rata benchmark of 91.7%.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for May 2022 is \$79.5 million for the Water fund (25.2% of total revenues) and \$115.3 million for the Sewer fund (26.5 % of total revenues).
- Water Net Position decreased by \$ 2.8 million, and Sewage Disposal Net Position decreased by \$ 0.8 million for the year to date through May 2022.

Capital Improvement Plan Financial Summary (page 28)

- Water systems exceed the 75% Capital Spend Ratio assumption.
- Sewer systems are falling below the 75% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 31)

- For May, transfers of \$13.6 million and \$17.6 million were completed for the GLWA Water and Sewer funds, respectively.
- Also for May, transfers of \$3.9 million and \$7.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 37)

- Total cash & investments are \$427 million in the Water fund and \$499 million in the Sewer fund.
- Total, combined, cumulative, FY 2022 investment income through May is \$3.3 million.

DWSD Retail Revenues, Receivables & Collections (page 42)

- Water usage through May 31, 2022 is at 108.96% and revenues at 100.53% of budget.
- Sewer usage through May 31, 2022 is at 104.30% and revenues at 99.92% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$44.1 million over the prior year.
- Past dues over 180 days make up 68.9% of the total accounts receivable balance. The current bad debt allowance covers 101.1% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 48)

- GLWA accounts receivable past due balance net of Highland Park is 20.85% 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 \$54.6 million. It includes \$42.0 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$10.8 million for water supply services. Highland Park recently made a payment of \$1.7 million on June 3.

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

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

New! Diversity Certifications Added to Vendor Profiles in GLWA's Bonfire Procurement Portal

As part of GLWA's Business Inclusion and Diversity (B.I.D.) Program, which was formally launched in February 2021, new vendor registration fields have been added to the [Bonfire Procurement Portal](#). When creating a profile in Bonfire, vendors will now be able to identify themselves as a certified business in the following categories:

- ✓ Small Business Enterprise (SBE);
- ✓ Minority-owned Business Enterprise (MBE);
- ✓ Disadvantaged Business Enterprise (DBE); and/or
- ✓ Woman-owned Business Enterprise (WBE).

Vendors holding certifications in more than one category can identify this as such when updating. In addition, vendors already registered in GLWA's Bonfire Procurement Portal will be prompted to update these new registration fields the next time they log into their Bonfire account(s).

GLWA's B.I.D. Program is designed to maximize opportunities for small, minority-owned, and disadvantaged businesses within GLWA's service area so that they may effectively compete to do business with GLWA. We therefore strongly encourage all vendors to update their Bonfire profiles. Providing this information will enable GLWA to better track the diversity certifications that our Vendor Community holds and help us refine our B.I.D. Program in the future to ensure that it continues to serve our small, minority-owned, women-owned, and disadvantaged business community efficiently and effectively.

Any questions about GLWA's B.I.D. Program or Vendor Diversity Certifications may be directed via email to [Michael Lasley](#) and [Megan Savage](#). For technical assistance navigating the Bonfire Procurement Portal, please reach out to Bonfire [Technical Support](#) for additional guidance.

Coronavirus Update #170: GLWA Mask Mandate Lifted at all GLWA Facilities & Project Worksites

On September 2, 2022 GLWA issued [Coronavirus Update #170](#) to the Vendor Community, indicating all the counties where staffed GLWA facilities or project worksites were no longer "RED" on the Centers for Disease Control and Prevention (CDC) [Community Levels](#) list. As stated previously in [Coronavirus Update #159](#), this means that the wearing of facing masks is currently optional for Vendors providing onsite services at GLWA facilities or project worksites regardless of their location until further notice. Any questions regarding this matter should be directed to [Michael Lasley](#) and [Megan Savage](#).

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 a GLWA solicitation, as well as the requirements for GLWA's Business Inclusion and Diversity (B.I.D.) Program.

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 August 2022 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 September 2022

Category	CIP #	Description/Project Title	Budget Estimate
Water System (next four to nine months)			
Construction	170802	Reservoir Rehabilitation Construction Services Phase II at Waterworks Park, Northeast, and Booster Stations.	\$35,972,000
Construction	114002C	Springwells WTP Low and High Lift Pumping Station Improvements	\$133,000,000
Wastewater Systems (next four to nine months)			
Construction	260802	WRRF Roofing Improvements	\$4,300,000
Construction	232002	Freud Pump Station Improvements	\$75,000,000
Design	270001	Pilot Netting Facility	\$6,000,000
Design-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Water System (next three months)			
Materials & Equipment	114002E-G	Springwells WTP Pumping Unit Procurement Package (Contract E thru G)	\$57,000,000
Materials & Equipment	114002H-J	Springwells WTP Process Valve Procurement Package (Contract H thru J)	\$14,000,000
Wastewater (next three months)			
Construction	260510	Conveyance System Repairs- CSO Outfalls Rehabilitation -Phase 5	\$10,000,000
Construction	260903	WRRF Front Entrance Rehabilitation	\$3,300,000
Construction	O&M	Plumbing Shop Rehabilitation	\$1,500,000
Construction	260901	Rehabilitation of Hazmat (rebidding)	\$2,000,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Construction	211006	Pump Station #1 Screenings Building HVAC Improvements	\$1,200,000
Design-Build	212008	Aeration Decks 1 & 2 RFP (invite to RFQ selected teams only)	\$74,000,000
Construction	O&M	Incinerator #11 Rehabilitation	\$3,000,000
Construction	260206	Rehabilitation of Joy Road & Brush/Bates Sewers	\$16,000,000
Engineering Services	273001	Hubbell Southfield CSO Facility Improvements	\$8,554,480
Professional Services	O&M	Professional Technical Services for Sewer Meter Support	\$8,500,000
Construction	114017	Springwells WTP 1958 Flocculator Replacements	\$22,945,000

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 – September, 2022

- ***Legislative Updates:*** The Office is also monitoring infrastructure spending bills at the federal and state level.
- ***Gordie Howe International Bridge:*** GLWA submitted its relocation reimbursement request to MDOT and received MDOT's response. GLWA is appealing MDOT's decision.
- ***June and July Rain Events:*** The Office is providing legal support in response to the significant rain events in June and July. To date, 13 lawsuits were filed against GLWA related to the rain events.
- ***Trenton Water Main:*** The Office is negotiating the transfer of the 24-inch water main to GLWA.
- ***Contract Negotiations:*** GLWA will attempt to secure long term contracts with all communities that are not on the model contract. The Office is working with member partners to draft a new model sewer contract. Office staff completed the Designated Management Agreement with SEMCOG. The water contract negotiation team has started the 2022 contract alignment/reopener process for all 84 member partners plus Detroit. Negotiations started successfully on March 17, 2022 and continue through October.
- ***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.
- ***Industrial Pretreatment Program:*** The Office continues to work with the Industrial Waste Control ("IWC") Group and external stakeholders on finalizing and implementing an updated IPP. As of September 6, 2022, 100% of the communities have passed a concurring resolution and GLWA has published the current 2019 rules which will become effective in 30 days. The Office also continues to provide assistance on PFAS and PFOS matters.
- ***Real Estate:*** The Office is negotiating easements related to support the Baby Creek CSO infrastructure improvement project. The Office is negotiating easements related to 96" watermain relocation and the Woodward Sewer Project.
- ***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.

- ***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:	33
• Contracts drafted or revised:	125
• Subpoenas/Information requests received:	8
• Subpoenas/Information responded to:	5