



Office of the Chief Executive

735 Randolph Street, Suite 1900
Detroit, Michigan 48226

December 19, 2019

The Honorable
Board of Directors
Great Lakes Water Authority

Dear Chairman Baker and Directors:

Regarding: CEO's Report – December, 2019

As we bring 2019 to a close, just GLWA's fourth year of operations, I am reminded of all the progress we have made together. As I told you at last week's meeting, one milestone of our progress is our recognition and membership in the Leading Utilities of the World Network. We are only the 49th utility invited to join this international group that "is a global network of the world's most successful and innovative water and wastewater utilities. Membership is the gold standard of utility performance." Another measure of GLWA's contributions to our service sector is that every one of our Directors and Executive Leaders have had the opportunity to represent GLWA as a speaker at a state or national service sector event. This past month, GLWA was represented at the State of the Strait 2019 Binational Conference in Windsor, ON where our Director of Wastewater Operations, Majid Khan was on the panel of keynote speakers at this conference. Similarly, our General Counsel, Randal Brown, spoke at the AWWA's legal symposium on the issues that keep utility legal counsel up at night. These invitations are both a reflection of and opportunity for, contributions to our service sector. We are very grateful and honored for the trust you have placed in us and for the recognition by our peers of what we are accomplishing together.

We also recognize how fragile that trust is in an era following the Flint water crisis. This was brought home recently when the press reported possible uranium contamination associated with the collapse of a part of the seawall on property used by Detroit Bulk Storage. The State of Michigan has tested the property and the water, and found no evidence of radiation. Of course, GLWA performed its own testing through a third-party certified laboratory and we expect those results to be consistent with the State's results. This is also why we continue to perform quality testing with a depth and frequency that exceeds State standards.

Speaking of testing, GLWA's Water Quality team has completed its first month of monitoring the fourth and final phase of Michigan Department of Environment, Great Lakes, and Energy's (EGLE) rescission of GLWA's modified consecutive system. The GLWA Water Quality team currently collects and analyzes total coliform rule (TCR) samples for 85 of its member communities. Since January 2019, the increase in total coliform rule (TCR) sampling has gone from 742 TCR samples per month to the current amount in this fourth phase of 2,860 (385% increase). The Wastewater Lab is providing support to our Research and Innovation group on various projects working in collaboration with the University of Michigan, Michigan State University, and the Pacific Northwest National Laboratory.

In addition, the lab is collecting PFAS (Per-fluoroalkyl substances) samples for an external study being conducted by CDM Smith and Purdue University that starts this month.

From service sector leadership, to detailed water quality testing, to partnering with universities on innovative projects that will help to shape water quality standards of the future and support our communities and our watershed, GLWA remains committed to providing water of unquestionable quality to southeastern Michigan, in 2019, 2020, and well into the future.

We hope that you, your families, and your loved ones have a safe and healthy holiday period and we look forward to continuing our partnership with you in 2020.

PLANNING SERVICES

Asset Management Group

GLWA has recently been awarded \$30,000 as part of the Southeast Michigan Council of Governments (SEMCOG) Southeast Michigan Infrastructure Asset Management Program. No funding match is required. This funding will be used to GPS target mains within the water transmission system that are located on Federal Aid Roads. On the targeted mains, visible assets such as valves and blow offs will be located and mapped using GPS. The updated geospatial locations will then update GLWA's Geographical Information System (GIS), providing for more accurate locations of our infrastructure. GLWA and contractors rely on our GIS system for field locations for everything from MISS DIG requests to emergency shutdowns. Improved accuracy will reduce damage, improve efficiency of work order completion and improve the reliability of our GIS system. GLWA will submit our water transmission and wastewater conveyance data to SEMCOG, as we have done in the past for other pilot projects. Over 60 applications were submitted, and GLWA received the maximum award for funding within the program. Providing this data will help SEMCOG develop an underground infrastructure needs assessment for the region.



CIP

The CIP team has been coordinating with our finance business partners to finalize Chapter 3 – Finance of the CIP document. The second draft was published mid-December.

In addition, the CIP team continues with ongoing management of the Program Management Delivery project with AECOM and is working on standing up a Project Management Office (PMO) early next year.

PLANNING SERVICES (continued)

This office will help to regulate the project changes that impact the Board approved capital planning document, ultimately deciding on all proposed changes to the CIP process, standards, policies, training and resource allocations.



Systems Planning

GLWA's Member Outreach Team is excited to share the new Member Outreach Portal! This portal is the hub of information for members to access documents associated with the Member Outreach Program, as well as a calendar of events and contact information for members registered on the portal. The portal is the best way for members to stay apprised of activities happening within the Member Outreach Program. Our goal is continuous improvement, and there are already future improvements planned. Let us know your feedback, or ideas for improvement by emailing outreach@glwater.org. Action is required! You must re-register to access the new Member Outreach Portal. [Click here](#) to view the user guide for the portal and [click here](#) to access the site.



A few of the new features:

- Similar look and feel as the main GLWA website, www.glwater.org
- Simple file structure for documents
- Calendar events are downloadable
- Calendar events display documents associated with the meeting
- Easier search functionality for documents, events and members

PLANNING SERVICES (continued)

The second meeting in the Charges Rollout series was held on November 21, 2019 and focused on understanding the Units of Service that will be used to develop the FY2021 water charges. Nicolette Bateson shared that a discussion of the water charges methodology is scheduled to begin in Spring 2020 and will be conducted through the water charges work group. Bart Foster and Jon Wheatley presented the preliminary water units of service data, including GLWA's recommended approach for projecting average water sales volumes for FY 2021. The schedule for the final charges rollout meetings are as follows:

- January 9, 2020: Charges Rollout #3 – Proposed Revenue Requirements
 - 10:30 a.m. – 2:00 p.m.
 - 18600 Haggerty Road, Livonia, MI 48152 – VisTaTech Center, Schoolcraft College
- January 23, 2020: Charges Rollout #4 – Proposed Charges
 - 11:00 a.m. – 2:30 p.m.
 - 200 W Big Beaver Rd, Troy, MI 48084 – Detroit Marriott Troy

The Wastewater Analytics Task Force held its final meeting of the year on December 6, 2019. There was a member spotlight on Wayne County, as representatives of the county shared their Long-Term Corrective Action Plan (LTCAP) for the Rouge Valley Sewage Disposal System (RVSDS), as well as a hinged manhole concept they plan to implement. The group also agreed upon a more structured process to receive and review the Annual Flow Balance Report that the groups review each year, as well as coalesced around potential topics for the work group to focus on in the upcoming year. The next Wastewater Analytics Task Force is scheduled on February 6, 2020 from 12:00 p.m. – 3:00 p.m., location to be determined.

The Wastewater Master Plan Steering Team met on November 15, 2019 for the first time since June. The team had a chance to catch up on progress the Regional Collaboration Group has made to converge on an adaptive integrated plan. Regional benefits of the adaptive approach, modeling results and specific recommendations were discussed. The next meeting will be held on December 20, 2019 at SEMCOG.

The 2019 Outreach Scorecard Results are now available and will be shared with the full Board in January. [Click here](#) to view the results as presented at the December 12, 2019 One Water Partnership Meeting.

November 2019 Member Outreach Meeting Attendance	
Meeting	# Attended
Wastewater Analytics Task Force (11/1/19)	28
Communication & Education Work Group (11/6/19)	25
Wastewater Master Plan Steering Team (11/15/19)	37
Charges Rollout #2 (11/21/19)	66

PLANNING SERVICES (continued)

System Analytics & Meter Operations

The Water Units of Service and System Water Audit project team is working to finalize the conceptual master metering plan for the City of Dearborn. Although some work related to the master metering plan for Dearborn was completed in phase 2 of the project, finalizing the plan is to be completed in the phase 3 work scope. The project team has been working on combining the GLWA/DWSD and the Dearborn hydraulic models to enhance the confidence in the modeling work to support the master metering plan for Dearborn. The combined model will help us to model the existing baseline of hydraulic connectivity between Dearborn and GLWA/DWSD and from there we can model the impact of connection closure scenarios. The project team is meeting with Dearborn and its engineering consultant on a weekly basis to advance the master metering plan.



The System Analytics and Meter Operations Team has been working on a flowmeter replacement project for sewage meters WC-S-1, WC-S-2, and WC-S-3. The design effort is to determine the appropriate location and metering technology to accurately measure GLWA member partner flows out of the Wayne County Rouge Valley System. WC-S-1 measures flow from the Wayne County Rouge Valley Interceptor (sometimes also known as the Oakwood Interceptor), which outlets

to the GLWA Oakwood Interceptor. WC-S-2 measures flow from the Middle Rouge Parkway Interceptor Extension, which outlets to the Northwest Interceptor (NWI). WC-S-3 measure flow from the Middle Rouge Interceptor Relief, which outlets to the NWI. Four alternatives for the WC-S-1 meter replacement and six alternatives for both WC-S-2 and WC-S-3 were presented to the WATF meeting in December 2019.

WASTEWATER OPERATING SERVICES

Wastewater Operations

Water Resource Recovery Facility (WRRF) operations were in-compliance with the Water Quality Standards for the month of November 2019 with one exception. The Carbonaceous Biochemical Oxygen Demand (CBOD) monthly average for primary effluent at monitoring point 049A was above the compliance limit for the month of November. This can be attributed to the lower detention times in the primary clarifiers from the hydraulic constraints introduced by the rehabilitation of the rectangular clarifiers.

WASTEWATER OPERATING SERVICES (continued)

Upon completion of the project it is anticipated that the hydraulic restriction will be eliminated, and the facility will return to normal operations. The team is currently reviewing operational strategies to mitigate future violations.

Maintenance

This month features the work of the Incineration Team, who in conjunction with Incineration Operations, has been working diligently on increasing the reliability of the eight incinerators at the WRRF. The following activities occurred during November:

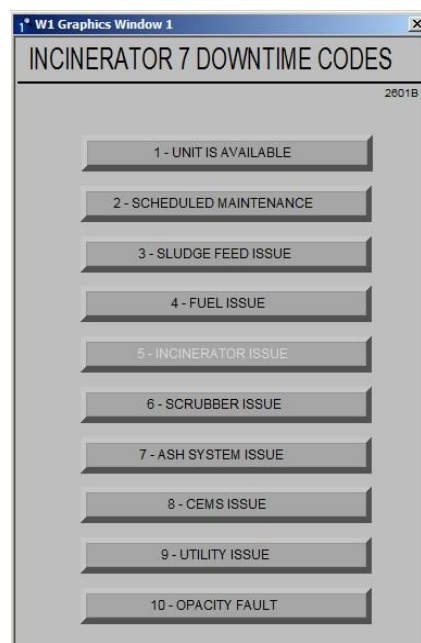
- Developing SCADA codes to assist with tracking operational status.
- Developing specialized service contracts to assist with: burner maintenance, instrumentation for air quality monitoring, and refractory repair.
- Investigating replacement bypass damper alternatives.

Once these areas are improved, tracking will begin to allow tracking uptime, and strategies will be developed to achieve our reliability goals.

Process Control Center (PCC)

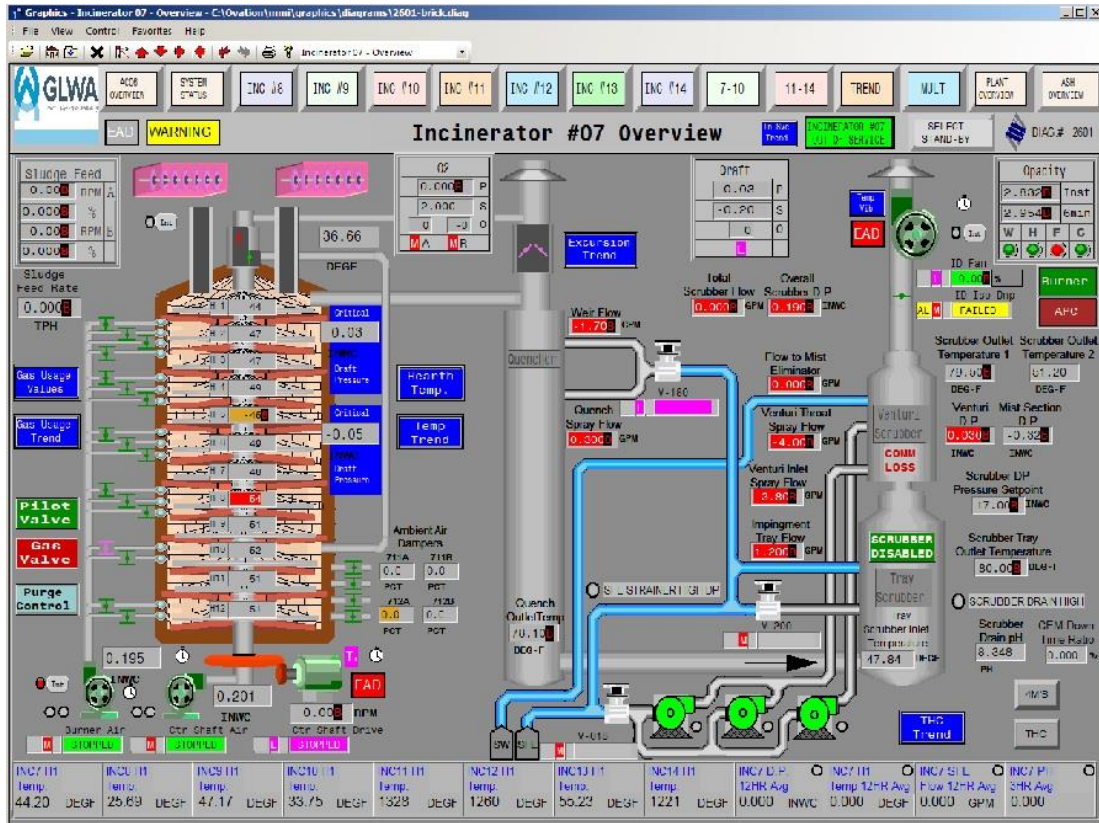
The PCC Team launched into production the enhanced Ovation graphics for the Incineration Process Area. The Ovation graphic system is used by Plant Operations to monitor and control the process equipment. The incineration process is dynamic and complex. It requires diligent and skilled Plant Technicians to ensure that the incinerators are operated efficiently and in compliance with numerous EPA air regulations.

The updated graphics were designed and configured to provide improved situational awareness for Operations. Graphics enhancements include a less complex layout and a more limited use of color. In addition, a pull-down menu was added so that plant staff can archive the reason for taking an incinerator out of service. This data will be used to support maintenance improvements.

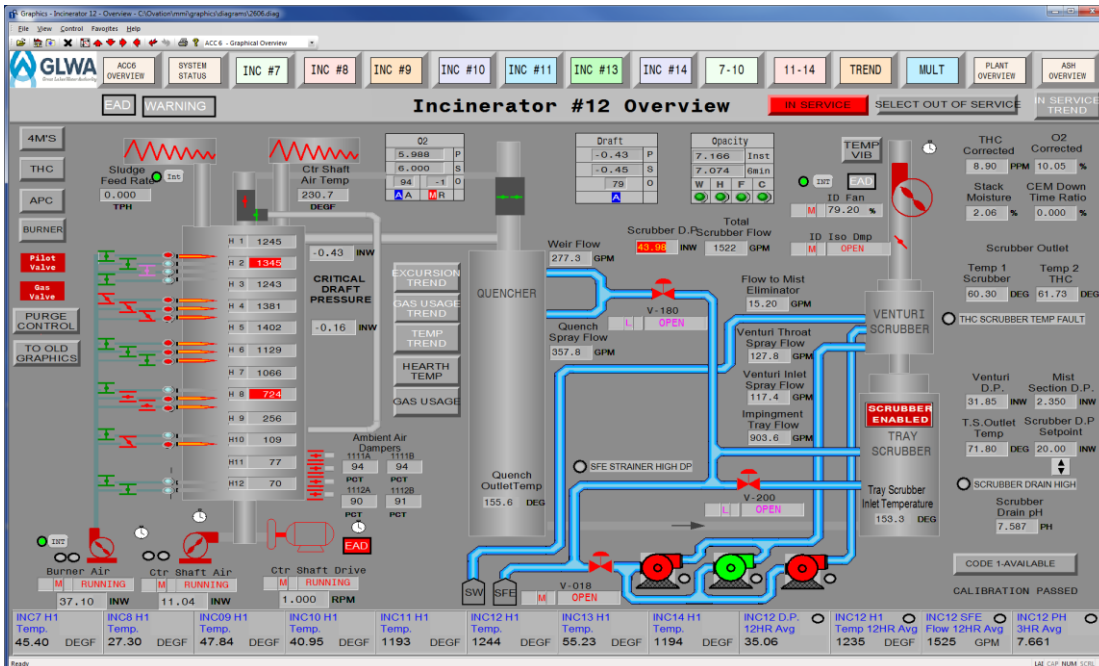


Incinerator Pull-Down Menu

WASTEWATER OPERATING SERVICES (continued)



Existing Graphic Prior to Upgrade



Enhanced Graphic After Upgrade

WASTEWATER OPERATING SERVICES (continued)

The PCC Team continues the upgrade of the control system network at the WRRF. The existing network switches are reaching their end of life and will no longer be supported by the manufacturer. Six network switches in the Secondary Process area were installed, configured, and tested with no process interruption or control system downtime.

The PCC Team witnessed a Factory Acceptance test for the CON-234. The contract includes installing two new remote input/output cabinets that will interface to the Emergency Relief Gates at the Connor CSO Facility.

Laboratory

Results for the last performance test sample covering 70 chemical components were recently received with all results passing. This testing is performed a couple of times per year per regulatory requirements.

The Lab team is evaluating whether continued support of volatile organic compound (VOC) testing should be done by GLWA or whether this testing can be done more economically through a contract lab.

Industrial Waste Control

The GLWA Board held a public hearing on November 13th, 2019 to receive any additional comments regarding proposed pretreatment rules modification prior to Board action. No additional comments were offered at that time, and the public hearing was closed. Subsequently, the GLWA Board approved the GLWA IPP (Industrial Pretreatment Program) Proposed Rules with all amendments.

The approval by the GLWA Board is the initial step required under the State's Utility Authority Act. GLWA will proceed to obtain resolutions of concurrence from the constituent municipalities prior to formally submitting the rules to the Michigan EGLE as a non-substantial NPDES Program modification. Upon final action by Michigan, the rules will be published and given effect 30 days thereafter. We are not able to estimate a potential effective date currently.

During November 2019, presentations were made about GLWA's PFAS efforts to (i) the State Bar of Michigan – Environmental Section and Air & Waste Management Association conference in Lansing, Michigan, (ii) a NACWA – Enforcement and Law conference in Austin Texas, and (iii) the Central States Association in Green Bay Wisconsin. The presentations were well received.

WASTEWATER OPERATING SERVICES (continued)

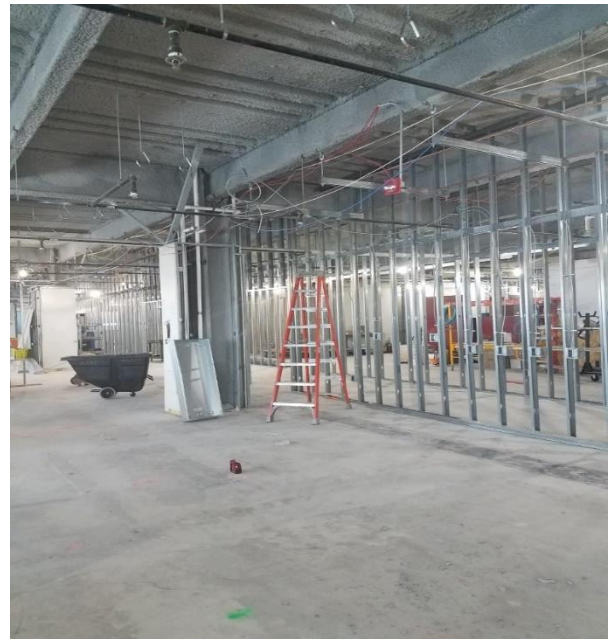
Engineering & Construction

Construction Engineering

Relocation of the Analytical Lab Operations to the GLWA Water Resource Recovery Facility project was awarded to Commercial Contracting Corporation with a start work date of September 9, 2019. The required substantial completion date of the project is September 08, 2020 and the required final completion date is March 08, 2021. The contract amount is \$11,499,000.00

The scope of work includes relocation of the 2nd Avenue Analytical Lab from its current location to the Administration Buildings at the Water Resource Recovery Facility (WRRF) and the renovation/reconfiguration of the current WRRF Operations laboratory. The scope also includes the roof replacement and HVAC controls upgrade of the Administration Buildings.

As of December 2019, the Contract is mostly in shop drawing and RFIs submittal phase. Demolition (electrical, mechanical and plumbing, civil) is almost complete and wall framing/stud installation is underway. Installation of sewer lines and process piping is beginning and the demolition and installation of a new roof of the old administration building is almost complete.



Framing of Labs and offices – 2nd Floor Admin.

Construction of the Sludge Conveyance Improvements project and the Rehabilitation of Rectangular Primary Clarifiers project are progressing. The construction of Pump Station No. 2 Pumping Improvements project is currently underway. The Rouge River Outfall Disinfection project has achieved substantial completion and the Contractor is currently working on the punch list items. The Rehabilitation of the Chlorination/Dechlorination Facility project is in submittal phase.

WASTEWATER OPERATING SERVICES (continued)

Control Program

The CSO Team has completed, is nearing completion on, or is beginning the following projects.

Projects completed: The Fire Alarm Improvements Project for all CSO Facilities was recently completed. We are working to develop a fire alarm maintenance contract which assures these critical systems stay in proper operation and receive proper maintenance. We recently completed the replacement of Hubbell-Southfield Accusonic flow meters allowing us to better measure flows coming into and out of the facility.

Projects nearing completion: The Leib Electrical Improvements Project is nearly completed, restoring proper lighting, equipment, and power to the basement area at Leib. The Oakwood Drain Valve Improvements Project is nearly complete. We are working to adjust the scope to modify the valve design in the drain vault to better suit the conditions of the environment and ensure long-lasting proper operation. The Baby Creek Make-up Air Units Project is nearly complete. We are working to install platforms for more simple maintenance of the HV units. The roofs at the Seven Mile and Puritan-Fenkell CSO Facilities have been replaced. Closeouts of the roofing projects for each site are in progress.

Projects beginning soon: The Seven Mile Site Improvements Project will begin construction activities in December 2019 or January 2020. This project is focused on making drainage improvements to the site and restoring it with low-maintenance landscaping and improved accessibility. Similarly, the Puritan-Fenkell and Leib Drainage Improvements Project is in the beginning phases of construction activities as the contractor develops the cost schedule of values and project schedule. The CSO Structural Improvements Project is presently out for bid, and a walk through was held with potential bidders in mid-November 2019.

Under the CS-299 Facilities Assessment Project, the CSO Team recently held workshops to assess criticality of all CSO assets. The Operations and Maintenance team provided important input for this effort in correctly assessing which assets for each facility were most critical and which weren't. This information was then taken and used to determine which assets we would conduct a deeper condition assessment on versus which would be assessed visually. The condition assessment step is anticipated to begin in December 2019 and continue for the next few months.

WATER OPERATIONS

Northeast Water Treatment Plant

The Northeast Plant's High Lift Pump and Motor #19 has been one of the extremely dependable "work horse" pumps. Unfortunately, nothing lasts forever, and High Lift Pump #19 has been worn down exponentially over the years. As such, Northeast has finally had the opportunity to send it out for a rebuild of both the pump and the motor. It was returned to Northeast in six months' time and the installation initiated. This process has been a rather daunting task for our maintenance staff, but through perseverance the task was completed.

WATER OPERATIONS (continued)



Pump insert now in place



Shaft in place

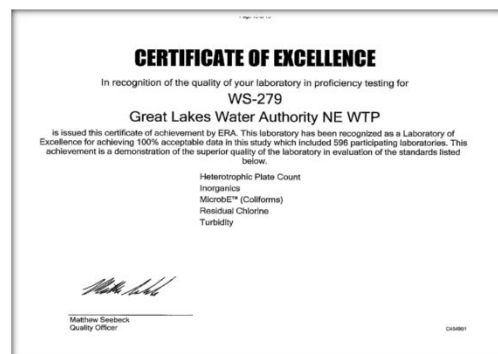


Attaching motor to pump

The Northeast Water Treatment Plant laboratory received a certificate of excellence in recognition of the quality of the plant's laboratory in proficiency testing for WS-279, a study done during the period October 4, 2019 to November 18, 2019.

This certificate of achievement was issued by ERA, A Waters Company for proficiency testing samples which is a requirement to be completed annually for certification of laboratories by Michigan Department of Environment, Great Lakes, and Energy (EGLE). This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 596 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below:

- Heterotrophic Plate Count
- Inorganics
- Microbiology (Coliforms)
- Residual Chlorine
- Turbidity



This is a great achievement for the NE plant laboratory. Congratulations to the NE plant Laboratory Team!

Springwells Water Treatment Plant

Recently, the new Water Technicians at Springwells participated in the isolation, dewatering and returning to service one of the eight basins at Springwells. This operation had been done by Maintenance for many years, but recently given back to Operations.

WATER OPERATIONS (continued)

They had to close all influent valves coming into the basin as well as lockout/tagout the floccs that serviced it. After closing influent valves, they had to close the effluent valves that fed the filter plant (500 turns each, by hand). This gave them the opportunity to reflect on the process and ask questions about both the basins and how they are cleaned.

Moreover, during the process, the basin was emptied of water. The amount of material that was removed from the water before filtration shocked the Water Technicians. They gained a better understanding of the importance of the process and what role they play in it. Team members then opened the mud valves for the crew that came in to dewater and truck out the mud. This aspect of plant operations is not done often. The experience of working hands on with the valves and knowing what they are removing from the water, and where it goes is valuable knowledge that will help put what they do in perspective.

Lake Huron Water Treatment Plant

The newly installed heating system for the Lake Huron Water Treatment Plant passed inspection and is ready for the upcoming cold weather season. The plant has been struggling with the original 1970 boiler system and the new high efficiency system should provide years of reliability.



Recently, the Lake Huron Water Treatment Plant exercised their site emergency plan by simulating a chlorine leak and running through their response procedures. This routine exercise was escalated by bringing staff from the St. Clair County Hazardous Operations Team, Tri-Hospital EMS, Public Relations, Security, and Safety to participate and observe. Plant Manager Chris Steary said, “Events like this really sharpen our team and bringing in the experts helps to highlight what we are doing right and reveal our opportunities to improve.”

All Lake Huron team members had a role to play. Whether coordinating communications, monitoring safety issues, or making entry, it takes all team members pulling together to affect a safe response.



Lake Huron WTP Site Emergency Plan Exercise

WATER OPERATIONS (continued)

This is the fourth year in a row that the Lake Huron Team adopted a family in their nearby community for Thanksgiving. This year's family consisted of 2 adults and 7 kids (ages 6–10). The Mom and Dad of this family have two biological children and decided to become foster parents. They were given two children to foster, but later learned they have three other siblings. To keep the siblings together, they asked to foster the other three children. This family recently started the journey of adopting all five of the children. They went from a family of 4 to 9 in the blink of an eye. What a selfless act!

Water Quality

Balvinder Sehgal, Special Projects Manager, organized a training class on Softening Treatment process on October 17th at Water Works Park (WWP). It was thought that no treatment plant at GLWA uses this treatment process, as source water for GLWA is moderately hard and does not need to be softened. To address this and to prepare team members for questions on this process in the F-license exam, this class answers those questions. The training was facilitated by Chemist Abul Ahmed, Plant Engineer Michael Dunne, and Balvinder Sehgal. Eighteen team members (Chemists and Water Technicians) from Water Operations attended this training.

The training was beneficial as it involved solving problems based on different topics of softening. Team members practiced a lot of problems and it is expected that with the guided problems, group exercises and discussions, the class participants will be able to correctly answer at least 70% of comprehensive and exam questions on softening.

Additionally, a Plankton class was organized for Water Operations on October 22nd at WWP. Seven (7) chemists attended this training.

At Water Works Park, fifteen (15) GLWA water and field operation employees attended the Microbiology Methods for Water Treatment Plant Operators class. Participants from several different GLWA water treatment plants came to learn and review the approved EPA methods used for culturing and identifying total coliforms, *E. coli* and heterotrophic bacteria in drinking water. The bacteriological methods reviewed included the advantages and disadvantages for each bacteriological method, a review of the federal revised total coliform rule, sampling requirements, proper sampling protocols and quality assurance and quality control procedures needed to maintain drinking water laboratory certification. This class is used to prepare GLWA team members for the Michigan F and S operator license exam. Upon completion of the course a licensed operator will receive 0.6 technical credits towards his licensing requirement.

Also, Balvinder Sehgal co-organized as well as participated as a speaker at the GLWA-Wayne State University (WSU) Research Collaboration symposium held at WWP on November 12th.

The presentation topics were wide ranging include drinking water, green infrastructure, environmental and wastewater topics and focusing on the collaboration opportunities between Universities and Water Utilities and highlighted a number of GLWA efforts.

WATER OPERATIONS (continued)

Presentation	Speaker(s)
GLWA-WSU Water Treatment Laboratory Exchange Program and Collaboration	Balvinder Sehgal , <i>Manager, GLWA</i>
Characterizing Removal Efficiency of Small Microplastics During Drinking Water Treatment	Dr. Yongli Zhang , <i>Assistant Professor, Department of Civil and Environmental Engineering, WSU</i>
Assessment of free proteins in a water system subjected to various legionella control strategies	Audrey Zarb , <i>Biologist and Communication Designer for Urban Watershed and Environmental Research Group (UWERG)</i>
Environmental contaminants in Detroit Waterbodies: effects on Zebrafish	Dr. Tracie Baker, Ph.D. , <i>Assistant Professor of Pharmacology, WSU School of Medicine</i>
Phytoplankton Community Diversity at GLWA Water Treatment Plant	Dr. Adrian Vasquez , <i>Research Associate, WSU</i> Abul Ahmed , <i>Chemist, GLWA</i>
Basement Flooding and Role of Green Infrastructure in Mitigation Efforts	Jamie Steis Thorsby , <i>Research Assistant, WSU</i>
Improving Assessment of Risk and Resilience in Drinking Water Systems	Dr. Sara Schwetschenau , <i>Post-Doctoral Fellow, WSU</i>
Characterizing a Massive Sewer Blockage: Education and Research	Dr. Carol Miller, Ph.D., P.E. , <i>Professor, Department of Civil and Environmental Engineering, WSU</i>
Future Opportunities for University/Utility Collaboration	

Water Works Park Water Treatment Plant

During mid-late November, sodium hypochlorite was applied to water tunnels from the intake structures at Belle Isle to Water Works Park Water Treatment Plant to control zebra mussel population.

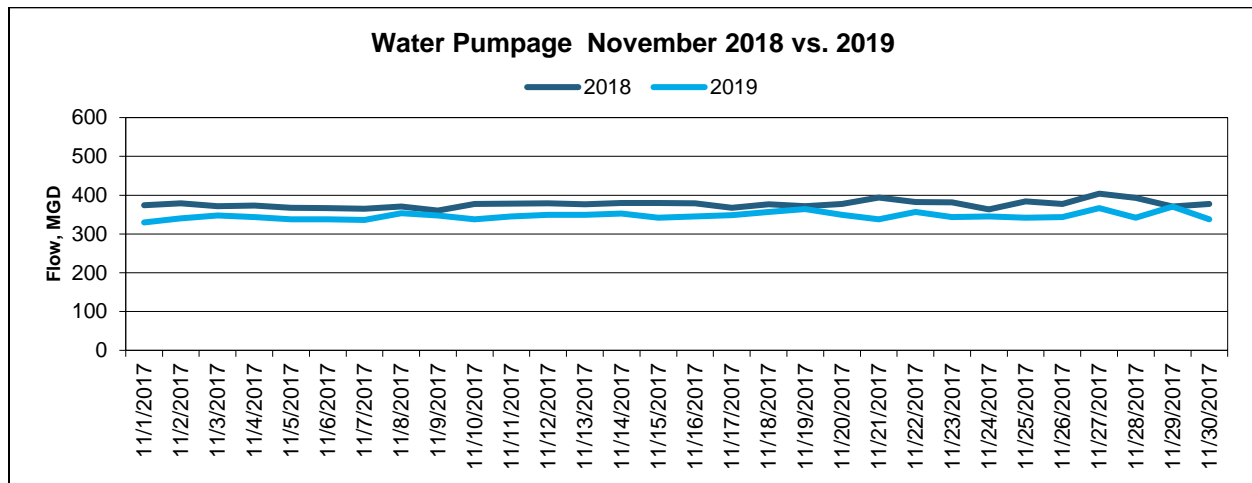
The mussels, if not controlled, are known to colonize intake structures, clog pipes, screens, and water transport structures. They attach themselves to most hard surfaces and form multi-layer colonies blocking intake pipes and screens. In the month of November, the combination of both sodium hypochlorite and colder temperature helped to control the proliferation of zebra mussels at the intake structures and tunnels.

WATER OPERATIONS (continued)

Systems Control Center

November Pumpage

November 2019 pumpage was 6.7% less than November 2018



Franklin Pump Station and West Service Pump Station Isolation Valve Replacement Projects

GLWA will be replacing pump isolation valves at the Franklin and West Service pump stations. In order to replace the valves, the stations will have to be put on a bypass for 14 days. On November 1st, a meeting was held with impacted member partners at Farmington Hills public offices.

GLWA discussed shutdown impacts on the communities, risks, and contingencies for the projects. There were no concerns from the member partners on moving forward with the projects. GLWA will keep member partners abreast of the shutdowns and there will be a 24-hour trial shutdown before the actual shutdown.

INFORMATION TECHNOLOGY

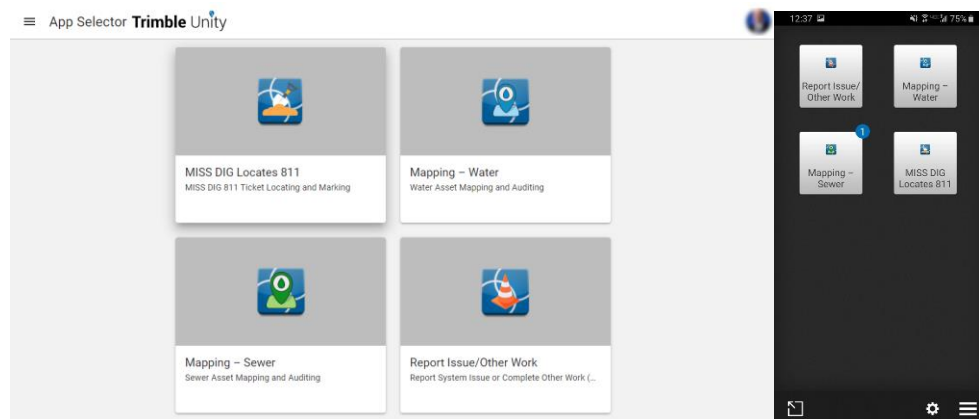
In the past month, the IT Security team has proactively blocked or thwarted 14,831 spam messages, 4,590 spoofed messages and 147 viruses. 648 phishing attempts have been caught and 113 malware attempts have been blocked.

The IT Enterprise Asset Management Systems team in conjunction with the Field Services Group and Enterprise Asset Management Group successfully implemented the Stage 1 Trimble Unity applications for field data collection and work management. Trimble Unity is a mobile and web-based application that is integrated with GIS data from our water transmission and sewer conveyance systems.

INFORMATION TECHNOLOGY (continued)

The Stage 1 apps completed and made available to Field Services and GIS team members include Report Issue/Other Work, MISS DIG 811 Locates, Water – Mapping, and Sewer – Mapping.

Work orders and data captured from using these apps will improve the quality of the GIS accuracy and completeness along with streamlining work communication and coordination among the field and office-based team members. IT team members are assisting with on-going training and roll-out of these mobile applications and associated Android tablets.



Trimble Unity web (left) and mobile(right) implementation for enhanced field data collection and work management in GLWA's water transmission and sewer conveyance systems.

The IT Business Productivity Systems team worked with the Risk Management group to successfully implement a Remote Safety Inspection solution. The remote safety system allows inspectors to record safety inspection information in the field. This will streamline the safety inspection process, reducing manual effort hours and providing violation and abatement history along with up-to-the-minute executive summary data.

As noted in the Planning Services section of the CEO report, the IT Business Productivity Systems and Systems Planning team worked together to implement a new dynamic website for GLWA's Member Partners. The new Member Outreach Portal provides a secure, user-friendly experience, with an interactive calendar and a document management feature that links documents directly with the associated meeting.

The IT Business Productivity Systems and IT Enterprise Asset Management Systems teams successfully integrated the current OnBase document management solution with the existing Esri ArcGIS and Oracle Work and Asset Management (WAM) applications. The benefit of completing this integration is a centrally managed repository for GIS- and WAM-related documents, enhanced access and search capabilities for historical documents, and the ability to apply record retention policies to those documents. This solution addresses the issues of multiple document silos, document duplication, and version control. Team members from Water and Wastewater Operations now have direct access to critical information in real-time while they are in the field.

INFORMATION TECHNOLOGY (continued)

The IT Customer Service Delivery Team along with the IT PMO and the Security and Integrity Teams implemented a Security Mobile Device solution. This solution allows S&I team members to access GLWA and DWSDs' shared security and surveillance systems remotely, so they are not mandated to physically monitor them while sitting at a desk or in a guard station. S&I team

members stationed at the Lake Huron water plant have begun using this solution fully however, the other GLWA sites will use this once S&I obtain new GLWA vehicles.

The IT Customer Service Delivery Team along with the IT PMO and IT Security teams began rolling out Microsoft Bitlocker Encryption while simultaneously removing Symantec Endpoint Encryption from all GLWA managed desktops, laptops, all-in-ones, and tablets. Microsoft Bitlocker Encryption provides better PC security by fully encrypting the hard drive and Operating System of our devices. It also provides additional end user benefits as team members will no longer be required to configure or answer Symantec security questions since Bitlocker is native to our existing Windows environment. In the event that a GLWA device is lost or stolen, Bitlocker prevents Cyber Criminals from accessing confidential data that could be stored on the device.

Currently, the IT PMO is managing 17 active projects and is processing 18 project requests. Five projects have been successfully completed since the last CEO report.

PUBLIC AFFAIRS

Reinforcing the GLWA Brand

Public Affairs coordinated a tour of the Water Resource Recovery Facility and the Biosolids Dryer Facility by 30 elected officials participating in the first Great Lakes - St. Lawrence Legislative Caucus Policy Conference, which was held in downtown Detroit at the end of October. The legislators represented each of the U.S. states and Canadian provinces that touch the Great Lakes and the St. Lawrence River. Suzanne Coffey provided a welcome to the group, and Majid Khan walked the group through a PowerPoint on the WRRF and the great strides it has made in reducing phosphorus loading into the eastern Lake Erie Basin. Suzanne Coffey also participated in a role-playing exercise with the legislators, which was designed to help them understand the many perspectives that shape the myriad efforts currently underway to ensure water quality in the Great Lakes basin.

World Toilet Day Highlights Work of WRRF Team Members

The annual World Toilet Day was held on November 19, 2019 and offered GLWA the opportunity to spend the entire week highlighting the important work that our Wastewater Operations team does for our region. In collaboration with the WRRF team, Public Affairs created a series of wastewater-related fun facts and turned them into boards.

PUBLIC AFFAIRS (continued)

We then took photos of a variety of WRRF team members holding the boards and published them throughout the week on social media and on GLWA's website.

Together, the photos had a total of over 3,500 organic impressions, and several water sector influencers also shared the photos on their social media accounts, including The Water Research Foundation, Mid-Michigan Environmental Action Council and Central Michigan University's

News 34 outlet. In addition, we published our Flushable's video on the MI-AWWA's social media. (See photo below).



One Team. One Scream....Annual Halloween Costume Contest

GLWA was full of ghosts, goblins and all sorts of costumes for the 2019 One Team, One Scream Halloween costume contest. Once again, our team members' creativity was on full display with some very creative and unique costumes.

It was a tough choice, but three team members were chosen as the winners. Jennifer Payne, CSF IT Manager won first place for her Velma outfit from Scooby Doo. Justin Kietur, Water and Field Services Engineer won second place for his costume paying homage to fellow team member Erich Klun. He says if you like the costume, you should get to know the real deal himself! WRRF's EICT-E Frank Czyz took home third place for his "work zombie."

PUBLIC AFFAIRS (continued)

He says part of the makeup involved gluing a prosthetic to his face and he was very afraid he might pull off his eyebrows when removing it! (See photos right).



SECURITY AND INTEGRITY

The Hazmat Unit coordinated and completed a total of 442 hours of training during the month.

Security and Integrity continued discussions and planning for Emergency Tabletop Exercises at the Southwest Water Treatment Plant in the spring of 2020 and at WRRF in the summer of 2020.

Security and Integrity met with the Detroit Local Emergency Planning Committee for WRRF to discuss required commitments for the Water Resilience Act of 2020.

ORGANIZATIONAL DEVELOPMENT

Apprenticeship Program

EICT-E Apprenticeship

EICT-E apprenticeship candidates are on schedule with completion of classroom instructions Friday, December 13, 2019.

Candidate interviews were held Tuesday, December 17, 2019 at Focus HOPE.

ORGANIZATIONAL DEVELOPMENT (continued)

Graduation was held Wednesday, December 18, 2019 for the 12 GLWA team members currently enrolled in pre-apprenticeship training.

Benefits/Wellness

- Open Enrollment for Benefit plans successfully completed. Team Member enrollment increased 3.7% over 2019 enrollment.
- Henry Ford Occupational Health was onsite to administer flu shots administered at WRRF, CSF, WWP and WWB.
- ICMA-RC representatives were onsite to conduct one-on-one consultations with GLWA Team Members at WRRF and WBB.
- Stop Loss Marketing Analysis completed to mitigate high cost claimants for both medical and prescriptions drug claims. Effective January 1, 2020, GLWA will partner with Symmetra.
- Ceridian Reimplementation validation of human resources and benefit elections data have been completed. Validation of dependent and beneficiary data is in process.

Pipeline to Employment

Since the last CEO report, no new contractors have become GLWA team members. The table below provides a breakdown of GLWA Team Members to date:

Total Staffing - Regular FTEs	1034
Number of Hires - 2019 YTD	145
Total Number of Contractors (FTEs)	137

Training and Development

During the month of November 2019, GLWA facilitated:

20 courses in Safety. Delivered 125 Hours of Instructor-Lead Training to:

- 141 GLWA team members
- 114 Member Partners:
 - 56 Member Partners completed the Bloodborne Pathogen course
 - 58 Member Partners completed the First Aid/CPR training course
 -

ORGANIZATIONAL DEVELOPMENT (continued)

2 courses in Various Subject Matter (Onboarding, Leadership, etc). Delivered 41 Hours of Instructor-Lead Training to: 70 GLWA team members

33 courses hosted by Contractors. Delivered 186 Hours of Training:

- 127 GLWA team members
- 3 Member Partners:
 - 1 Member Partner completed Basic Water: Session 1 Introduction
 - 1 Member Partner completed Basic Water: Session 2 Water Treatment
 - 1 Member Partner completed Basic Water: Session 3 Distribution

LEGAL

General Counsel's December Report is an attachment to the Chief Executive Officer's Report.

Respectfully submitted,



Sue F. McCormick
Chief Executive Officer

SFM/dlr

Attachments (1)

Office of the General Counsel – December, 2019

- ***NPDES ACO Dismissal:*** The Office will assist in preparing documents to have the ACO dismissed.
- ***Legislative Updates:*** The Office continues to support HB 4806 which contains amendments to the exception to governmental immunity, regarding liability for sewer back up claims. GLWA continues to cooperate with member partners on the Lead and Copper Rules as well and attend webinars on the subject. The Office is also monitoring a bio-solids bill.
- ***Gordie Howe International Bridge:*** The IWC program vacated 303 Livernois and relocated to WWRF, however, GLWA's reimbursable relocation costs remain an open item.
- ***Trenton Water Main:*** The Office is negotiating the transfer of the 24-inch water main to GLWA. GLWA retained a survey company to survey the entire easement area for the transfer documents.
- ***Water Contract Negotiations:*** GLWA will attempt to secure long term contracts with all communities that are not on the 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. The Office is also assisting on GLWA's property remediation efforts.
- ***Record Retention Policy:*** The Office is drafting a record retention policy for GLWA.
- ***Industrial Pretreatment Program:*** The Office continued to work with the Industrial Waste Control ("IWC") Group and external stakeholders on finalizing and implementing an updated IPP and overseeing the current program. The Office coordinated the transfer of a portion of GLWA's IPP to the Oakland County Water Resource Commissioner ("OCWRC"). The Office is also providing assistance on PFAS and PFOS matters.
- ***Lead and Copper:*** The Office provided support to GLWA's Water Supply Advisory Council. The Office is held a discussion with member partners on the proposed Federal Lead and Copper Rules on December 5th.
- ***Real Estate:*** The Office negotiated easements to operate and maintain water and sewer infrastructure in the footprint of the FCA project. The Office is working with GLWA's broker to market 235 McKinstry.

- ***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 recently filed class action lawsuit regarding IWC charges. GLWA continues to pursue its action against Highland Park for the collection of unpaid water and sewer invoices.
- ***Labor Relations:*** The Office continues to provide legal advice to Organizational Development on labor relations and employment matters.
- ***Lease Arbitration:*** The City and GLWA delayed the arbitration to secure an amicable resolution of open items.
- ***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.
- ***Conferences & Webinars:*** The Office presented at the AWWA legal seminar in Chicago.
- ***Past Month's Statistics:***

Contracts reviewed as to form:	29
Contracts drafted or revised:	51
Subpoenas/Information requests received:	5
Subpoenas/Information responded to:	12