



Office of the Chief Executive

735 Randolph Street, Suite 1900
Detroit, Michigan 48226

August 26, 2020

The Honorable
Board of Directors
Great Lakes Water Authority

Dear Chairperson Walker-Griffiea and Directors:

Regarding: CEO's Report – August 26, 2020

GLWA, in conjunction with the University of Michigan, has begun a year-long research project to support our ability to proactively assess and repair the condition of our water transmission infrastructure. Over the course of the last several weeks, teams have been working on a 192-foot section of 48-inch cast-iron main on Kercheval between Harding and St. Clair on the city of Detroit's east side. Sections of the main are being lined with two different reinforcing materials, steel-reinforced cement and steel-reinforced polymer, which will have sensors embedded to feed real-time information on pipe condition and performance back to us for analysis over the course of the next 12 months. This works follows on a similar process done with the condition assessment we did in Oakland County with the Pipe Diver and Smart Ball technology. These pilots will improve our ability to select the proper technology for the application as we work to understand and address potential failures in the system before they occur.

Michigan has approximately 35,000 licensed attorneys. Each year Michigan Lawyers Weekly receives nominations from across the state and selects 30 attorneys from those nominated to be honored as Leaders in the Law. We are pleased to report that this year GLWA's Chief Administrative and Compliance Officer, William Wolfson was selected, and on August 6, 2020 was honored in a virtual celebration. Mr. Wolfson has a long history in municipal law having worked on initiatives ranging from casinos and stadium developments to restructuring of the juvenile justice system including a diversion program for at risk youth which allowed them to avoid formal entry into that system. Mr. Wolfson was recognized for his efforts to protect Michigan's waterways, promote environmental justice, including the initial development of the Water Residential Assistance Program and for his role in the creation and operation of GLWA. Congratulations Bill!

I am sad to report that following an extended illness, Phillip Sain, a Plant Technician assigned to GLWA's Water Resource Recovery Facility, has passed away. Please keep Phillip and his family in your thoughts and prayers.

PLANNING SERVICES

Asset Management (AMG)

The Asset Management group is currently developing a standard for asset tagging for newly created assets as part of capital and maintenance related projects. Included will be the identification of appropriate printing technology and tag material that will meet our harsh water sector environments. Because of the differences in purpose of asset tags, the Financial Services Area will continue to tag fixed assets as usual. It is anticipated that this new tagging method will standardize asset tags across GLWA, be used to visually identify pertinent information on the tag and will have the ability to link (via QR code) to the asset ID maintained in our current (and future) computerized maintenance management system. This asset tagging standard and the overall standard operation procedure for asset onboarding and retirement will be rolled out in the next several months.



GLWA has completed a visual condition assessment of approximately 1,000 of WRRF and Sewage Pump Station assets. We are planning for process area workshops that will use the data gathered to develop long term rehabilitation and replacement needs as well as to perform preventative maintenance optimization strategies. The results will be used to finalize the Wastewater Asset Management Plan in the upcoming months.

Linear System Integrity Program proposals have been received and have been evaluated by a cross functional team that includes a Member Partner representative. Thank you to the review team for the time and effort involved to bring this to a successful conclusion. We anticipate bringing a contract to the Board for approval in the coming months.

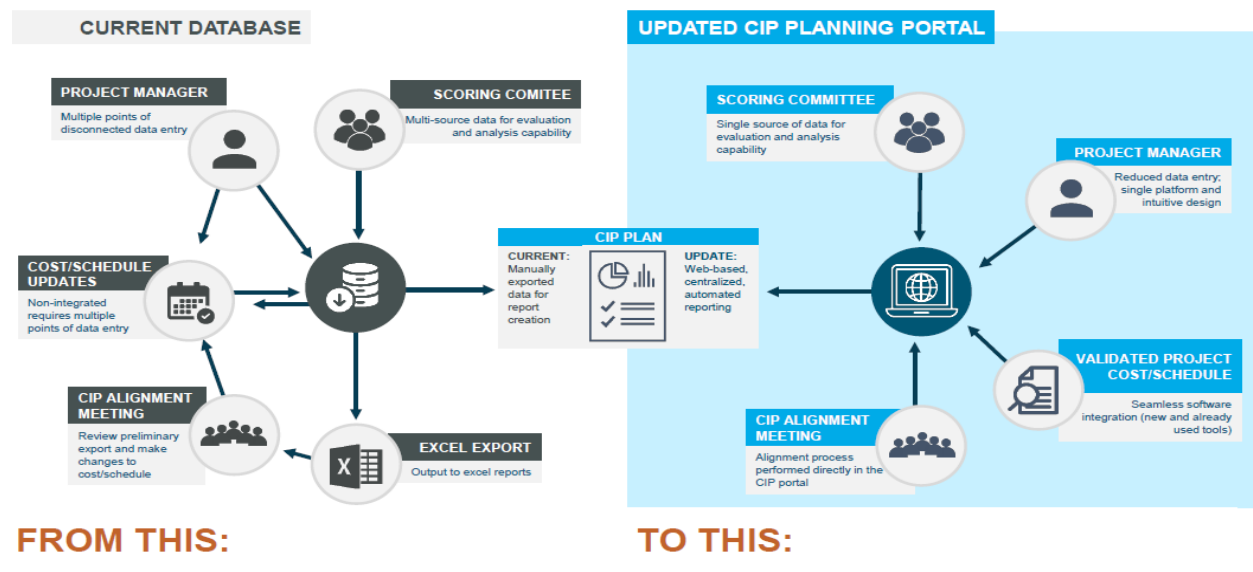
Capital Improvement Planning (CIP)

With the new fiscal year upon us, the CIP group is preparing for the update to the CIP document and preparing GLWA staff for updating the Business Case Evaluations (BCE) that contribute to it. The CIP group has conducted training on the new CIP planning portal offering five different training sessions to make it convenient to all the project managers to receive the necessary training.

The driver behind the CIP planning portal is to provide a better user experience, accessible anywhere with internet access, connecting the multiple data sources to one hub, reducing manual data management, reducing data entry for Project Managers, leverage the CIP validation data from Task No. 6 of the AECOM program management contract, and leverage a new Work Breakdown Structure (WBS).

PLANNING SERVICES (continued)

The figure below dictates these strategic changes from last year to this year's update:



Systems Planning

The Member Outreach Team has been planning upcoming activities including; Virtual Facilitation Training, the Technology Approval Group Orientation, and the 2020 Scorecard to name a few. We held our quarterly One Water Co-chair meeting and as usual, the meeting was a great way to connect with the co-chairs and understand what is on the minds of our member partners.

Current Member Outreach Co-Chairs		
Name	Representing	Email
Rob Bincsik	Genesee County (Flint)	rbincsik@cityofflint.com
Carrie Cox	Oakland County (OCWRC)	coxc@oakgov.com
Jeff McKeen	Oakland County (SOCWA)	jmckeen@socwa.org
Kevin Johnson	Macomb County (Chesterfield Twp.)	kjohnson@chesterfieldtwp.org
Russ Miller	Macomb County (St. Clair Shores)	millerr@scsmi.net
Don Rohraff	Wayne County (Livonia)	drohraff@ci.livonia.mi.us
Bill Turner	Wayne County (Brownstown Twp.)	wturner@brownstown-mi.org

PLANNING SERVICES (continued)

Palencia Mobley	Detroit (DWSD)	Palencia.Mobley@detroitmi.gov
Laurie Koester	GLWA	Laurie.koester@glwater.org

As announced on August 10, 2020, all Member Outreach Work Group meetings will be conducted remotely through December 31, 2020. We will continue to reevaluate and provide timely updates on our plans for future work group activities. After convening remotely for several months, many Member Partners have expressed appreciation for the convenience and efficiency offered by virtual meetings and have told us that continuing this approach post-pandemic to some degree would be welcomed. If you have thoughts that you would like to share about the potential role of virtual engagement or considerations for holding in-person meetings safely in the future, please let us know at outreach@glwater.org.

The Water Analytical Work Group met on July 28, 2020 with much of the meeting being dedicated to a Units of Service and System Water Audit Update. Chandan Sood, GLWA and David Sayers, Black & Veatch presented updates on two tasks: Water Treatment Plant Flow & Metering Analysis and Review of Prior Water Loss & Leak Detection Studies. Breakout sessions were used to discuss the topics and questions that were not able to be addressed in the meeting were provided with the meeting summary. A brief recap of the questions and answers will also be provided at the September 22, 2020 work group meeting. For more information on the Units of Service and System Water Audit project, see the System Analytics and Meter Operations section of this report.

GLWA is partnering with Isle Utilities to launch a Technology Approval Group (TAG). This is a program to vet technology tools for member partners and GLWA. The effort will be supported by the Member Outreach team and GLWA's Energy, Research, and Innovation group.



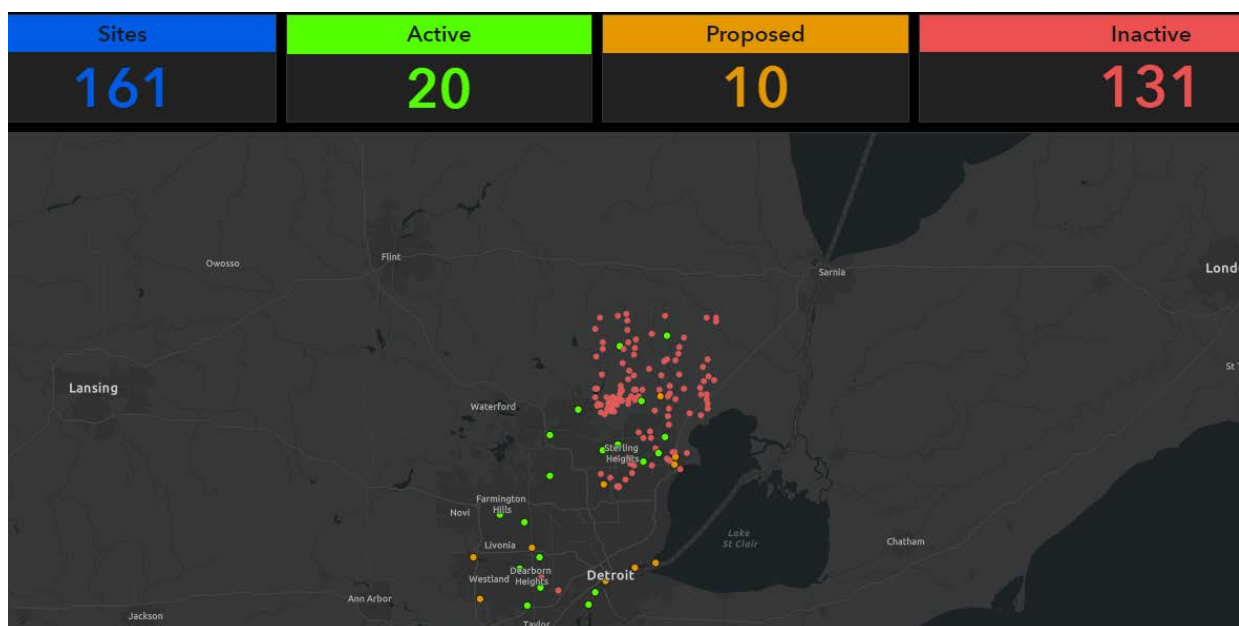
- ◆ July 2020 – A survey was sent to members to identify technology needs and areas to focus research.
- ◆ August 2020 – An orientation webinar was held on August 19, 2020, 10:00 a.m. – 11:30 a.m. The webinar provided an overview of the TAG program, as well as results from the July member survey.
- ◆ October 2020 - A workshop is tentatively scheduled for October 22, 2020 to review new technologies as presented by vendors.

Save the date! As you are likely aware, GLWA has been offering a tool called, AURA, a Smart Water technology platform developed by Aquasight LLC that assists communities with water quality analytics.

PLANNING SERVICES (continued)

GLWA offers the tool to all member communities to use at no additional charge. A webinar is being hosted on Tuesday, September 29, 2020 at 2:00 p.m. to explain what the tool is, and the benefits a peer community has experienced since using the tool. Email outreach@glwater.org to learn more.

The Watershed Hub Work Group met on July 9 and August 4, 2020. At the July meeting, Dan Gold and Bryon Wood of GLWA gave an update on data collection activities and a demonstration of the beta-version of the GIS mapper that they have been building with Members' input.



In addition, Carl Johnson and Zach Eichenwald of CDM Smith presented an overview of the water quality model developed as part of the Wastewater Master Plan (WWMP). At the August meeting the group provided feedback on the beta-mapper and discussed how this tool should be developed and most effectively used going forward, including what permitting considerations should drive the type of data collected and how it is presented. A sub-group will be convened to continue the discussion on regional water quality monitoring as the group expands its focus to address other topics with a watershed-scale impact, such as green infrastructure. The next Watershed Hub Work Group meeting is scheduled for September 2, 2020.

The Regional Collaboration Group (RCG) met on August 3, 2020, where Sam Smalley started things off by providing a high-level overview of DWSD's current operations, including how they have adjusted to COVID-19 and a recent reorganization of their leadership structure. The meeting then turned to dry-weather impairments, with Carl Johnson of CDM Smith reviewing the milestones focused on tackling dry weather impairments for the first three years of the WWMP. This was followed by presentations from Steve Rozycki (Macomb) Carrie Cox (Oakland), and Noel Mullet (Wayne) on their respective counties efforts to mitigate dry-weather issues.

PLANNING SERVICES (continued)

Group members also voiced interest for exploring how the new Watershed Hub Work Group can support the RCG's work going forward.

The Wastewater Best Practices (WWBP) work group was hosted on August 5, 2020. It began with updates from Dan Beauchamp of EGLE related to Capacity, Management, Operations and Maintenance permits and the status of efforts to roll out collection system operator certification programs. This was followed by a joint presentation from CDM Smith's Jim Broz, Zach Eichenwald, and Greg McGrath, who walked through a post-event analysis of the July 10th storm. This was the second post-event analysis presented to this group to further familiarize Member Partners with the model and method developed as part of the WWMP to identify trends in terms of system response and inform operational changes. Since CDM Smith's presentation focused on flow coming from Oakland County, Gary Nigro from Oakland County supplemented the presentation by describing the impact that it had on their system upstream of the connection to GLWA infrastructure. The next Wastewater Best Practices meeting is scheduled for October 14, 2020.

July 2020 Member Outreach Meeting Attendance	
Meeting	# Attended
Watershed Hub Work Group (7/9)	16
Water Analytical Work Group (7/28)	59
Regional Collaboration Group (8/3)	18
Watershed Hub Work Group (8/4)	12
Wastewater Best Practices Work Group (8/5)	38

Systems Analytics and Meter Operations (SAMO)

The project team for Units of Service and System Water Audit Phase 3 study has completed the analysis of four, out of the five, water treatment plants' pumpage data. The project team is working with Team Members from the Water Works Park water treatment plant to complete the data analysis. GLWA water operations and engineering groups have made significant progress improving the pumpage measurement methods since Phase 2 of the study conducted in year 2018. In Phase 2 of the study, Black & Veatch qualified 71% of the pumpage volume data as low confidence. In Phase 3 Black & Veatch has reduced the low confidence to 17% of the pumpage volume data. This is a significant progress. **Kudos!**

PLANNING SERVICES (continued)

Please see table below for details:

Water Treatment Plant Metering Status

FACILITY	Pumpage Measurement Methods	
	UoS Phase 1 & 2	UoS Phase 3
Northeast WTP (20%)	HL combined pump curves	FW Venturi Meters
Southwest WTP (12%)	HL combined pump curves RW Venturis	FW Venturi Meters
Springwells WTP (22%)	HL combined pump curves	FW Venturi Meters
Water Works Park WTP (17%)	HL combined pump curves RW Venturis	Revised HL pump curves method RW Venturis (x3)
Lake Huron WTP (29%)	Filter-bed Venturis (x30)	Calibrated Filter-bed Venturis (x30)
<div>HL = High Lift LL = Low Lift</div> <div>FW = Finished Water FB = Filter Bed</div> <div>RW = Raw Water</div> <div>Low Confidence Medium Confidence High Confidence</div>		

The Group continues its progress working on the wholesale water meter pit rehabilitation and meter replacement program. The scope of work includes construction work at 50-meter pits with a scheduled target completion date of September 2021. The team is coordinating with member partners for planning, scheduling, and field coordination. The planned work has been completed at 21 of the meter pit locations and is underway at another 16 locations.

WASTEWATER OPERATING SERVICES

Wastewater Operations

Water Resource Recovery Facility (WRRF) operations were in-compliance with the Water Quality Standards for the month of July 2020.

Maintenance

The WRRF Maintenance Team is moving forward with emergency preparedness in these uncertain times. We are managing thorough inspections, and replacement if necessary, of Electrical Building (EB) roofs that protect large switchgear and breakers.

WASTEWATER OPERATING SERVICES (continued)

EB-1 and EB-11 roof repairs are now completed. Further transformer and electrical upgrades to ensure system resiliency are also underway.

Additionally, the Maintenance Team is leading a comprehensive review of the WRRF fire alarm system that has been underway since May 2020. New fire pumps have been installed and replacement of obsolete fire monitoring electronic panels and sensors is underway.

Process Control Center (PCC)

Upgrade of the Ovation Process Historian (OPH) that collects process data from the Ovation controls systems throughout GLWA for use in reports, trends, and historical reviews is in process. The OPH system consists of a pair of redundant data scanners at each GLWA facility that check all process data that is configured against established collection criteria. In addition to the new OPH Servers, a pair of redundant Domain Controllers were installed as part of the overall Ovation upgrade which is scheduled for later this year.

Upgrade of the Rockwell system used at the WRRF and CSO Facilities is also in process. Rockwell Allen-Bradley controls are a major component of the control systems at WRRF and CSO Facilities. Allen-Bradley Programmable Logic Controllers (PLC) are used to control some of our CSO facilities and are often used by Original Equipment Manufacturers (OEM) as part of a package process equipment such as a belt filter press. In areas where there is a prevalence of PLCs, a Rockwell computer interface is provided to monitor and control the process in that area.



New Ovation Process Historian and Domain Controllers preparation

The St. Aubin, Lieb, Puritan-Fenkell, Hubbell-Southfield, and Seven Mile CSO facilities have Rockwell Allen-Bradley as their only control system. Process areas in the plant that have Rockwell interfaces include: Belt Filter Presses, Chlorination, Dechlorination, Hypo, and the Total Hydrocarbon monitoring system in the Incineration process area.

The Rockwell system consisting of 31 servers and workstations was upgraded by the Process Control Team at WRRF. The hardware was procured, loaded, and configured to reside on a temporary network located within the PCC at the WRRF. This allowed for testing of the new system prior to deployment.

WASTEWATER OPERATING SERVICES (continued)

The graphics, trends, alarming, security, and historical functions software applications were tested. This work was completed by the existing Process Control Systems staff at the WRRF with only a single supplemental engineer from the manufacturer.

There are several advantages to self-performing work like this as opposed to contracting it out. There is a substantial cost savings (approximately \$100,000 - \$200,000), time savings (1 Year), and advancing the skill, knowledge, and abilities of our team members. The learning opportunities presented by this upgrade will be used as we administer and maintain the system. This will also provide insight to planning and administering future upgrades.

Laboratory

The laboratory team has established a change management team to develop and implement 5S standards and procedures in preparation for the upcoming consolidation of the laboratories. Additionally, the team is working on establishing new communication tools from Ovations to help keep all team members aware of the required sample based on the operational strategy at the facility.

Industrial Waste Control (IWC)

We have now received and acknowledged 20 (25%) executed agreements as of July 31, 2020 in response to the presentations that were made to introduce the Pretreatment Rules to the communities and requesting a community resolution adopting them.

EGLE staff conducted a compliance audit of the Industrial Pretreatment Program on July 31, 2020. No violations were identified in the verbal report. A written report is expected in the next 30 days.

We are continuing to work with Oakland County concerning spinning off facilities located within the Clinton River WRRF area. During the past month, we provided final comments and edits on Wastewater Discharge Permits for ten facilities. We anticipate signing off on these during August 2020.

Engineering & Construction

Design Engineering

The Job Order Contract (JOC) for the Aeration Deck and Metering Building Repairs is now split into two separate JOCs. The Deck Repairs JOC is to address replacement of some precast concrete planks and some surface repairs. This part has already been advertised, and bids are to be received in early September. The Metering Chamber Access Hatch Replacement JOC design work is almost complete, and the final review underway for advertisement.

WASTEWATER OPERATING SERVICES (continued)

For the Complex II Incinerators, the Replacement of Emergency Bypass Dampers JOC will replace all emergency dampers that are problematic with new roof-top pop-top dampers on top of the stacks. Development of construction documents are nearly complete, and the JOC should be out by September 2020.

Construction Engineering

HVAC Improvements project at Baby Creek CSO Control Facility (Contract No. 1901609A) was awarded to Professional Thermal System, Inc. in early 2020 for \$550,000.00. The required substantial completion date of the project is January 8, 2021, and the required final completion date is April 10, 2021.

The scope of work includes electrical room ventilation system modification, screening building air dampers and actuator replacement, and installation of new HVAC Direct Digital Control (DDC) system tied to the ovation system.



The submittal process is almost complete. The Permit from the City of Dearborn has been acquired. Louvers, exhaust fans, dampers and actuators will be on site soon. The contractor is assembling a new control panel and laying conduit and wiring.

Existing thermostat will be replaced by DDC control

Leib Screening and Disinfection Facility HVAC Improvement project (Contract No. 1803718) was awarded to LGC Global, Inc. with a start work date of June 17, 2019. The project experienced some delays in the beginning, and via Change Order # 1, the substantial completion date was revised to August 17, 2020 and the final completion date was revised to October 17, 2020. The contract amount is \$345,203.

The Scope of work includes damper replacement and actuators on existing louvers and providing new HVAC Direct Digital Control (DDC) System.

The submittal process is almost complete. Louver, exhaust fan, dampers and actuators will be on site at the end of August 2020. The contractor has assembled a new control panel and installation is in its final stage. The project has experienced a delay due to COVID-19 and may need a time extension change order.

Currently the WRRF-Construction Engineering Team manages about 25 active construction projects and tasks.

WASTEWATER OPERATING SERVICES (continued)

Construction of the Sludge Conveyance Improvements project (CON-197), Rehabilitation of rectangular primary clarifiers project (PC-757), Chlorination/Dechlorination Improvement at WRRF (CON-238) and Relocation of the Analytical Lab to WRRF project are all progressing. Several Job Order Contract Tasks are also under construction now.

CSO Control Program

The lighting at Baby Creek is currently being replaced. The lights in the headworks area are being relocated to facilitate future maintenance. They were inaccessible previously. Work to restore power to the site and driveway lighting as well as the facility entrance/exit gate began at the beginning of August.

Efforts to reline the Baby Creek storage tanks are underway, and efforts to do the same for the Leib chemical storage tanks were bid out in July.

Other project updates include:

- CIP 260614 – CSO Structural Improvements Design Build is anticipated to go to the August Board for approval. This project includes structural assessment and repairs to all nine CSO Facilities. We anticipate this project beginning by the end of October 2020.
- CIP 260617 – St. Aubin Screening & Disinfection study will be completed by the end of September 2020 and will be bid out for design and construction assistance services in October 2020.
- CIP 260618 – Oakwood HVAC Improvements project was kicked off in July 2020. We anticipate the design efforts will be completed by mid-January 2021 and bid out for construction.

CIP 277001 – Baby Creek Outfall Improvements Study was kicked off in July 2020. This study will be to complete a basis of design and easement documentation necessary to make improvements to the Baby Creek Outfall to facilitate debris removal. This study is anticipated to be completed in the first quarter of 2021 and subsequently bid out as a design-build project.

CS-299 – CSO Facilities Assessment Project Update: Condition assessment field efforts have been completed for all CSO Facilities. We are working on some quick-win design projects to make immediate improvements to issues at the CSO Facilities to resolve operational and maintenance issues. For example, we are working on rehabilitating the flushing gates at Conner Creek as many have issues and require a definitive scope of work and construction plans for rehabilitation. This will restore the flushing system and reduce manual cleaning efforts and will help to keep GLWA staff out of the basins, thus improving safety. The draft needs assessment report will be completed in September 2020. The plan forward is to begin consolidating and bundling projects and prioritizing them for input into next year's CIP.

WATER OPERATIONS

Water Administration

Virtual Lab Course

Nine (9) GLWA team members participated in a 5-day Virtual Lab Course (hands on lab training) on June 24 and 26, and July 8, 10 and 17, 2020. This was an effort to convert an all face to face lab training to virtual to continue training while instituting COVID requirements. The theory portion of this training was done via Skype and the “hands on” portion was covered at WWP, NE and LH plants by the participating trainers from Water Operations.

This training is to prepare team members to take the Michigan Department of Environment, Great Lakes, and Energy (EGLE) F4 and F3 certification exams, particularly with passing the lab practical and/or need a lab refresher. The training provides the participants with 1.1 CEUs in the technical category approved by EGLE. It was a 4-hour class each day, beginning with an introductory PowerPoint lecture via Skype, followed by practical laboratory training based on the material during the lecture. A plant tour was provided to the participants on the first day so that they have better understanding of the treatment processes. A pre-examination and post-examination was administered during day 1 and day 5 of the course. In-class quizzes were administered during days 2, 3, and 4. Personal protection equipment (PPE) was provided to the team members to work in the lab. In addition, surveys were provided to participants for feedback in order to make improvements to the lesson plan for future sessions.

Water Quality

Lead and Copper Rule (LCR)

The Water Quality laboratory team is in full swing implementation of the Lead and Copper Rule (LCR). We anticipate analyzing in excess of 3,000 samples for lead and copper each during the four (4) month LCR monitoring period and an additional 1,400 for the LCR samples in the monitoring periods for the member partners that had an action level exceedance in 2019.

The process is very involved where all the samples for all the member partner communities must be validated to ensure none of our partners has a monitoring violation. The samples are preserved and organized in order of when they were received. After the preservation samples are required to sit for a minimum of 16 hours, they are analyzed for pH and turbidity. While most samples do not require digestion, samples that exceed the turbidity or pH requirements must be digested using a very involved process. The samples are then analyzed for both lead and copper using atomic absorption spectroscopy for both.

The quality control process is also very involved. It requires analyses of quality control samples to ensure that all results are accurate. An additional 30% quality control samples are analyzed for the quality control process. After that process, the quality control data is reviewed by another chemist, for quality assurance (QA).

WATER OPERATIONS (continued)

The final steps involve a review of the QA information by the laboratory quality assurance team member and once approved, the data is transcribed to a report that is sent to EGLE, as well as the member partner who owns the data.

The member partner has 30 days to send results to their individual customers in a prescribed regulated format.

Springwells Water Treatment Plant

Technology in Action

Springwells is undergoing significant upgrades – the 1958 Filter rehabilitation project, the sluice gate project, and the Venturi project name a few. With modern upgrades being implemented on multiple systems throughout the facility, GLWA’s oldest plant will soon meet current state-of-the-art standards. Along with this modernization of equipment, comes a requirement for a modern way of managing the workload, and Springwells is on the forefront of this great change.

Springwells is moving away from the sometimes cumbersome process of paper work orders and moving towards a paperless work-flow using tablets, which lends agility and time savings to the crews; allowing them to complete their work orders onsite, communicate immediately with operations staff, and report findings on-scene to the team leaders. This new and highly effective way to field the workflow through to completion will help the maintenance staff at Springwells keep the machines and devices that produce water of unquestionable quality in good working order.

Water Works Park Treatment Plant

Usage and Discharge of Polymer

Water Works Park has a National Pollutant Discharge Elimination System (NPDES) permit to discharge decant from our residual facility to the Detroit River. The residual facility has two thickener tanks that receives alum sludge from the sedimentation basins and waste from filter backwash through two equalization basins. Thickener polymer is added to the equalization basin effluent before the waste enters the thickener for the formation of sludge. The residual thickeners allow the solids to settle into sludge and the clear liquid or decant (total suspended solids less than 10 mg/L, WWP solids limit) overflows at the top of the thickeners (*see image below*) and flow to the Detroit River by gravity.

WATER OPERATIONS (continued)

Polymer Superfloc A-1849S used as a flocculant is considered a water treatment additive, and a request to use and discharge must be approved. One of the requirements for the application is to propose the water treatment additive discharge (polymer) concentration (mg/L or μ /L) with supporting calculations. It then becomes a joint effort from the entire plant to estimate the effluent concentration of the polymer. The plant engineer proposed the discharge calculation assuming that the thickening polymer will be reduced at the same percentage as the total suspended solids (TSS) reduction in the thickening process.



The WWP maintenance team installed sample collection taps to the equalization pump discharge lines. Operations Team leaders assisted in supplying chemical inventory data to compare to the Ovation data, thickener pumping and dosing, and sedimentation basins valve settings in Ovation. The water technicians and chemists collected the samples. The chemists performed the total suspended solid analyses.

We estimated that with an average polymer application of 1000 μ g /L to the residual thickener basins, a maximum of 500 μ g/L of polymer is discharged to the river. EGLE approved the application of Superfloc A-1849S as a flocculant for sludge processing. Working as a team with each unit of the plant applying its expertise facilitates the approval of the use and discharge of Superfloc A-1849S at the proposed discharge concentration of 500 μ g/L.

Energy Research & Innovation

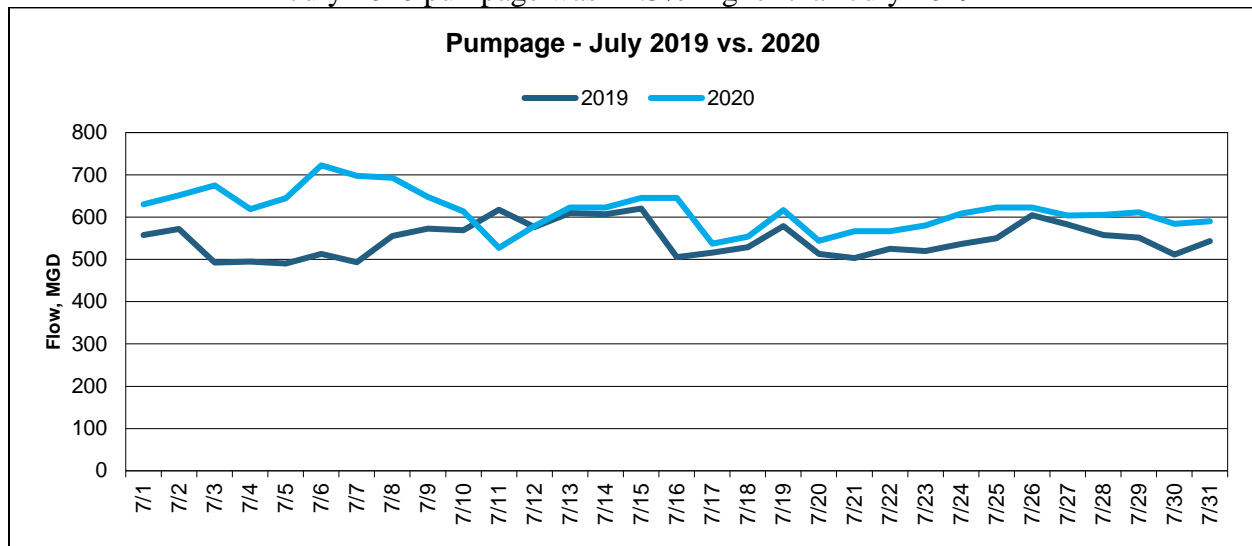
Water Booster Station UPS Project

The Energy team is collaborating with the Field Services electrical team to inventory and gather information about the various UPS systems throughout the water booster stations. The equipment is being reviewed for condition and maintenance history and a plan developed to replace and repair as necessary. This effort will also update the Work Asset Management (WAM) system with accurate information and documentation. The highest priority for replacement is three separate UPS systems at Haggerty and Rochester stations. These systems are obsolete, and we have finalized the RFQ documents for the replacement. The UPS RFQ documents were emailed to the electrical team for their final review.

WATER OPERATIONS (continued)

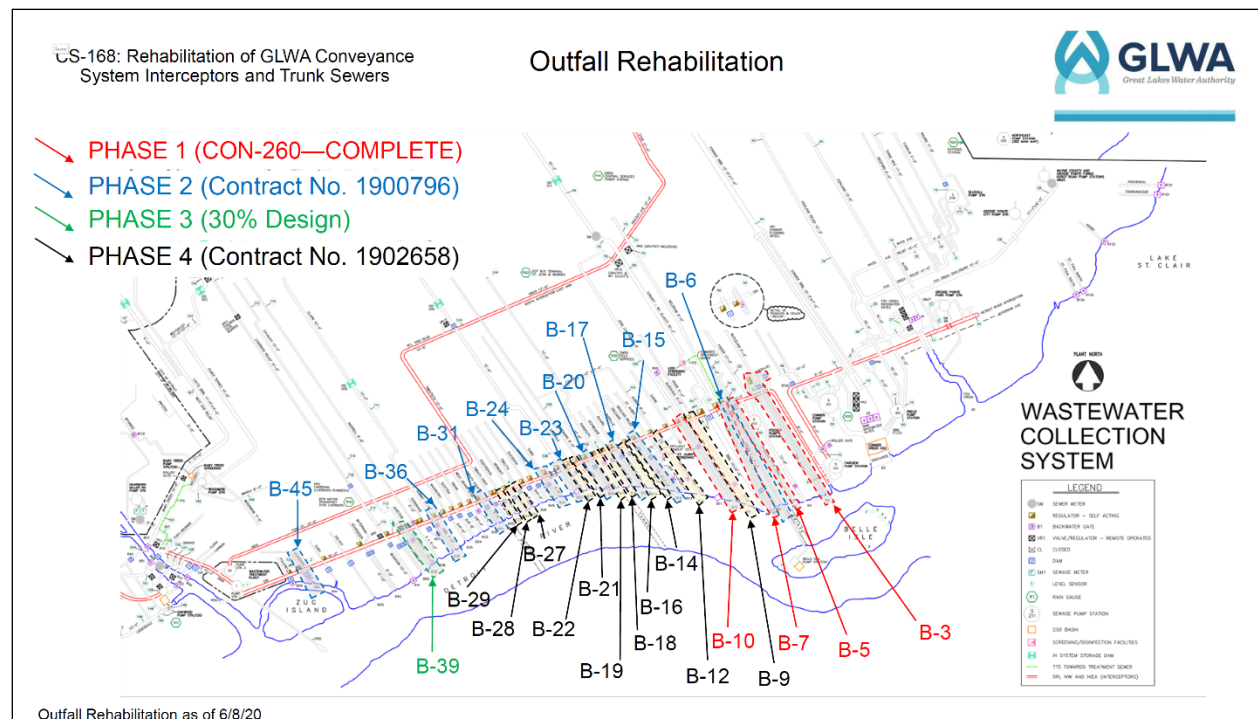
Systems Control Center

July 2020 pumpage was 12.3% higher than July 2019



CSO Outfall Rehabilitation

The following map shows the design and construction progress made on the Detroit River CSO outfalls. Phase one construction was completed in April 2020. Phase 2 and Phase 4 construction is underway with no changes in the target completion dates.



WATER OPERATIONS (continued)

Engineering

CON-297 Fairview Pump Station Improvements

Demolition work continued with the cutting and removing of structural steel, ducts, conduits and steel gates at the electrical and transformer rooms, continue removing concrete cuts from the basement slab and the north piers. The contractor has installed pumps and started dewatering of the discharge chambers 1 and 5.

Five of the seven pumps (1, 2, 3, 4 and 5) are running now at the same time. The contractor is operating the bypass system 24/7 and continue monitoring motor temperatures with heat gun. No excessive temperatures have been noted.

The contractor has replaced fuses and installed the new variable frequency drive (VFD) under the supervision of the manufacturer and has also disconnected the motor and pipes and pulled out pump #2 for maintenance and inspection.



Pictured left to right:

1. *Cutting and removing steel gates from the transformer room*
2. *Demolition and removal of concrete cuts from the basement slab*
3. *Installation of new VFD*
4. *Uninstallation and Reinstallation of bypass pump #2*

CON 1803823 LHWTP Clarifier & Sludge Pumping Improvements

The new wash water retention basin is being tested for water tightness. Junction structure 1 has wall forms being installed and the existing 60" wash water line has been placed onto permanent supports with no movement.

With regard to junction structure #2, the existing 60" wash water line has been temporary supported, and excavation has been completed. The junction structure slab will be poured soon.

WATER OPERATIONS (continued)



Pictured left to right:

1. Working on junction structure #2 wall forms
2. Installing wood forms at junction
3. Completed installation of reinforcement around junction structure 1



Pictured left to right:

4. Digging pockets for chain support under 60" Concrete WWD Pipe and installing chains and turnbuckles
5. Removing inside wall forms at junction structure #1

Fleet and Facilities

Newly Painted Railing on Belle Isle Intake Bridge



ADMINISTRATIVE AND COMPLIANCE SERVICES

Fleet

Administration and Compliance Services has provided temporary support to GLWA's Fleet Team as it transitioned to a fleet management contract with Enterprise. Since GLWA entered into the fleet management contract midway through fiscal year 2020, we have added 35 new vehicles, decommissioned 24 vehicles, and decreased the average age of our fleet from 9.9 to 9.5 years.

ADMINISTRATIVE AND COMPLIANCE SERVICES (continued)

With the transition from shared services beginning on July 1, 2020, GLWA is in the process of installing GeoTab tracking units on its vehicles, preparing for the distribution of Wex fuel cards that will allow GLWA team members to purchase fuel from gas stations throughout the service area at fleet prices, and is evaluating whether the current pandemic provides purchase opportunities for the continued modernization of the GLWA fleet.

INFORMATION TECHNOLOGY

In the past month, the IT Security team has proactively blocked or thwarted 10,737 spam messages, 5,169 spoofed messages and 10 viruses. Additionally, 433 phishing attempts have been caught and 94 malware attempts have been blocked.

The IT Security team has begun the pilot for multi-factor authentication. With a successful pilot, IT security will begin a scheduled and structured deployment of the tool.

The IT Business Productivity Team has completed the roll-out of integrated audio-by-phone. All leadership team members now have the ability to schedule Skype meetings that include a call-in number that integrates directly into the Skype meeting audio. This capability will automatically follow team members to Microsoft Teams as the Business Productivity Team begins to rollout that technologically-superior product for A/V conferencing in the next month. Microsoft Teams has improved bandwidth usage compared to Skype, as well as the ability to see more video feeds on-screen. This will result in an overall improved experience for team members.

The IT Customer Service Delivery Team reopened the Print Shop on July 23, 2020, introducing new contactless printing procedures and delivery options to both GLWA and DWSD. Although the Print Shop has been reopened with limited onsite staff and operation hours, we are seeing an increase in requests as GLWA and DWSD team members begin returning to work onsite.

The IT Enterprise Asset Management Systems Team along with Enterprise Asset Management Group, Finance, and Water and Wastewater Operations Areas will begin interviews and software demonstrations in late August into early September for the new Enterprise Asset Management (EAM) system.

This summer, the IT Enterprise Asset Management Systems Team continues to support operations and engineering in the Water Operating and Wastewater Operating Areas including providing high resolution aerial imagery, GIS data review and updates, WAM asset data clean-up, document management and indexing, valve exercising program support, asset tag and printer research, and many other areas.

Currently, the IT PMO is managing 25 active projects and is processing 9 project requests

PUBLIC AFFAIRS

Keeping Team Members Safe Video

The Public Affairs team worked together to create a video highlighting the steps GLWA has taken throughout the coronavirus (COVID-19) pandemic to keep team members safe. The video mainly uses images of team members wearing proper PPE and animations to highlight some of the most important measures taken since the beginning of the pandemic back in March. The highlights range from setting up an internal COVID-19 task force and directing all non-operational team members to work remotely if possible, to requiring masks be worn at all GLWA facilities and on work sites.



Click [HERE](#) for watch the video.

Back to Work Signage

A cross-functional team from across the Authority worked to develop a list of the new COVID-19 related signage needed to keep everyone throughout our facilities safe. Public Affairs then designed the more than 20 signs, which take into account GLWA's new safe workplace standards, and help safety guidelines and remind team members of relevant pandemic-related policies and procedures. These visual cues will help team members keep themselves and others safe.



PUBLIC AFFAIRS (continued)

Mask Up GLWA!

There is a fun, new way to remind team members to mask up! GLWA's mascot Splash is helping team members remember to wear their mask. This fun graphic is another way to keep important information about wearing masks in front of team members as GLWA's response to the pandemic continues.



SECURITY AND INTEGRITY

The Hazmat Unit coordinated and completed a total of 260 hours of training during the month. In addition, Security and Integrity continued the conversation of “Vendor Vetting” for WRRF with Chief Operating Officer Navid Mehram, and is awaiting feedback from Finance, Procurement and IT.

Security and Integrity's Critical Infrastructure Manager, Walter Davis assisted Water and Field Services' Field Director Todd King in conducting a “Hot Wash” to review the Garden City/Westland Boil Water Emergency incident.

Security and Integrity continues participating in the Emergency Operations Center's ongoing COVID-19 Pandemic briefings.

Security and Integrity continues coordinating inventory control with Procurement on ongoing PPE supplies for Security and Organizational Development, and any other reporting GLWA Team Member.

FINANCIAL SERVICES AREA

August 2020 Audit Committee Recap

The most recent GLWA Audit Committee meeting was held on Friday, August 21, 2020. The full Audit Committee binder is posted at www.glwater.org. The meeting included the following discussion topics.

- ✓ An update on the Water Residential Assistance Program (WRAP) evaluation, redesign and request for proposal process.
- ✓ Introduction of a new member partner fee for optional use of the GLWA Water Quality lab services to support the increased sample testing requirements under the Environmental Protection Agency's new Lead and Copper Rule testing rules.
- ✓ Review of the Quarterly Investment Report, Quarterly Debt Report, and a Shared Services Status Report.
- ✓ Presentation of the May 2020 Monthly Financial Report (*Executive Summary attached*).
- ✓ The CFO Report addressed evolving COVID-19 economic impacts to GLWA including FY 2021 investment earnings, local system collections, and future Detroit General Retirement System contributions.
 - At a recent Board meeting, staff was asked to evaluate the feasibility of further deferring the effective date of the charges from October 1, 2021. We are reviewing that topic as well as other recent developments.
 - The reality of COVID-19's impact on the investment portfolio is becoming evident. A rough estimate is a potential decrease in revenues equates to \$8 to \$10 million downward pressure on the budget.
 - The budgetary shortfall advance to DWSD is dependent on the level of collections versus the budget requirements. While the collection level is within a reasonable amount compared with the prior year, the budgeted financial commitments increased. The combined shortfall total for FY 2021 to date is \$5 million (\$4.4 million for July 2020 and \$600 thousand for August 2020 through August 19, 2020). DWSD is presently evaluating measures to close that gap that has quickly evolved early in this fiscal year.
 - Looming on the horizon is increased concern of the funding level of the City of Detroit's General Retirement System (GRS) given current economic conditions. Given that GLWA is a party to funding the closed system liability, this may impact the long-term financial plan. The GRS Board recently met on August 17, 2020 and has engaged a number of advisors to evaluate different actuarial and investment strategies. GLWA's staff and actuary continue to monitor the situation so that we are prepared as well.
- ✓ The upside to this report is that wholesale water system usage and revenue is above budget through August 7, 2020 for FY 2021. The increased usage of 608 mcf equates to a positive revenue variance of \$6.2 million.

FINANCIAL SERVICES AREA (continued)

Vendor ACH Payments

The *GLWA Direct to You!* program is a GLWA initiative allowing vendor payment by ACH which was launched last year. Currently, there are 96 active vendors who have received payments totaling \$162.8 million, representing 45.4% of total payments since program implementation in June 2019. The *GLWA Direct to You!* Program significantly reduce risk due to delivery misdirection and theft while maximizing cash flow for our vendors.

The *GLWA Direct to You!* program is a free service to our vendors. The Accounts Payable team encourages all vendors to participate. We look to every opportunity to remind the vendor community to register for this program which begins with sending an email to accountspayable@glwater.org.

Vendor Outreach

The GLWA Procurement group was invited by the **Michigan Department of Transportation (MDOT)** to be the guest presenters at MDOT's first Virtual Real Talk on Wednesday on July 15, 2020. Team Members Susan Kopinski, Megan Torti, and Michael Lasley provided a presentation on "How to do Business with GLWA" to over seventy virtual participants. The presentation highlighted GLWA's Mission and Vision Statements, an overview of our systems and member partners, Capital Improvement Plan, COVID-19 efforts, Bonfire, the types of contracts and products and services GLWA procures, how to successfully be awarded a GLWA contract, "GLWA Direct to You" payment process and the Small Business Initiative.

The GLWA Procurement team fielded several questions and provided a written question summary to those that attended. Questions about Bonfire, pre-proposal meetings and the Procurement Pipeline were just a few of the questions asked. The GLWA Procurement group has also received several follow up emails from attendees. The feedback submitted was overwhelmingly positive and MDOT appreciated the positive kickoff to their new virtual series.

Transformation

The Transformation Team, in partnership with Operations and Maintenance at WRRF, continue to make positive progress on the Incineration Downtime project. To date this team has:

- Established a standardized work instruction (SWI) for entering the downtime codes in Ovation.
- Trained all Team Leaders to the standardized process.
- Created Single Point Lesson to teach team members which downtime code to select in Ovation based on the issues experienced on the asset.
- Analyzed six months of data in Ovation to measure the baseline for uptime/reliability percentages and understand any trends.
- Used data to understand areas of focus for team to improve downtime related issues.

FINANCIAL SERVICES AREA (continued)

Since January 2020, the WRRF Operations and Maintenance Teams have worked on tasks and improvements that have driven a 35% increase in uptime on one incinerator. The WRRF team is working to drive these improvements and others across the system. Transformation will continue to work with the WRRF team to analyze the data from Ovation and establish a sustainable process for managing and reporting on downtime data.

Procurement Pipeline

The August 2020 Procurement Pipeline edition is attached. This month features reminders for successful invoice submission and the importance of advanced shipment notifications (ASNs) for large deliveries to our facilities.

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

Respectfully submitted,



Sue F. McCormick
Chief Executive Officer

SFM/dlr

Attachments (1)

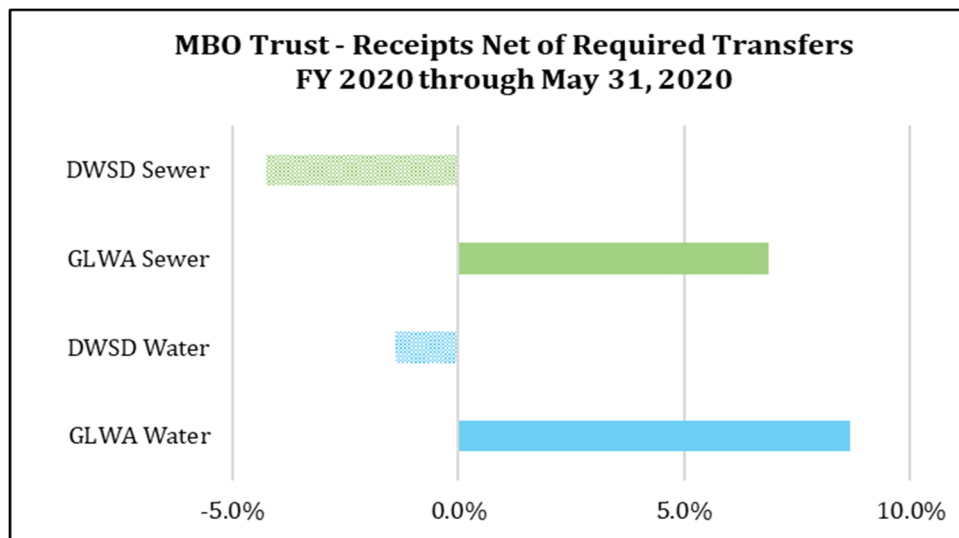
Key Financial Metrics

The indicators below focus on a financial risk management lens of preventing a budget shortfall. Green indicates no risk of a budget shortfall; yellow indicates a potential shortfall by year-end; and red indicates a likely budget shortfall by year-end. Each of these variances is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Looking forward, the items in **red** below resulted in FY 2020 Board-approved budget amendments in June 2020.

As of May 31, 2020				
Metric	FY 2020 Budget	FY 2020 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$288.5	\$282.8	-2%	41
Wholesale Water Billed Usage (mcf)	12,626,000	11,969,000	-5%	
Wholesale Sewer Billed Revenue (\$M)	\$245.6	\$245.6	0%	43
Wholesale Water Operations & Maintenance (\$M)	\$120.5	\$117.1	-3%	4
Wholesale Sewer Operations & Maintenance (\$M)	\$171.5	\$153.7	-10%	
Investment Income (\$M)	\$16.0	\$18.0	13%	32
Water Prorated Capital Spend w/SRA* (\$M)	\$99.0	\$68.0	-31%	25
Sewer Prorated Capital Spend w/SRA* (\$M)	\$111.0	\$67.0	-40%	26

*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



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

program funding in subsequent year(s). DWSD Water and Sewer net receipt shortfalls are \$1.2 and \$10.2 million respectively for May 2020 attributed to the impact of the COVID-19 pandemic. GLWA and DWSD staff meet regularly to discuss steps to mitigate this shortfall as outlined in the 2018 MOU. Prospective COVID-19 financial impacts are being monitored closely and are addressed in the monthly CFO Report section of the August 21, 2020 Audit Committee binder.

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

Welcome to the August edition of *The Procurement Pipeline*, a monthly newsletter designed to provide informative updates on doing business with the Great Lakes Water Authority (GLWA). Though we continue to operate with the utmost caution during these unusual times, this month's edition of *The Pipeline* returns to familiar territory and provides some helpful tips for the vendor community regarding the GLWA payment process as well as a reminder about Advanced Shipment Notifications.

Procurement Tip of the Month: Submitting Invoices and GLWA Direct to You!

Timely and efficient payment of invoices is a top priority for GLWA. To ensure that your business receives its payments as promptly as possible, please submit invoices must meet these seven criteria:

1. Submitted **after** goods are shipped or services are completed
2. Includes the GLWA purchase order (PO) number provided by the GLWA Buyer (GLWA PO numbers are seven digits; currently five numbers preceded by two zeroes)
3. Include a valid remittance address
4. Have an invoice number
5. Be addressed to Great Lakes Water Authority
6. Invoice items and unit prices match purchase order items and unit prices
7. Exclude a charge for sales tax (The Exemption form is located [here](#). Please note that there are exceptions to GLWA tax-exempt status for construction contracts; see the [July 2020 Pipeline](#) for more information.)

We also strongly encourage vendors to register for *GLWA Direct to You!* to receive payment via ACH-Direct Deposit. In addition to improved cashflow, *Direct to You!* offers a secure online vendor portal, identifies all invoices paid, and eliminates the delays associated with lost or stolen checks.

For more information about invoices, the payment process, or registering for *GLWA Direct to You!*, contact us at accountspayable@glwater.org.

Reminder: Advanced Shipment Notifications

On March 17, 2020, GLWA instituted an Advanced Shipment Notifications (ASNs) protocol. This requires that vendors send ASN's prior to all deliveries to GLWA warehouse facilities. ASNs must be sent to LM-Shipment-Notifications@glwater.org and include the following information.

1. Vendor name
2. Vendor address
3. GLWA Warehouse address
4. Delivery date
5. Shipment detail (including SKU and quantity)

Providing ASNs ensures that our GLWA warehouses can make the proper preparations to accept the delivery quickly and efficiently. We thank the vendor community for their cooperation. If you have any additional questions related to this matter, please contact your GLWA Buyer directly.

GLWA's First Virtual Vendor Outreach Event

While the COVID-19 pandemic has forced us to cancel many of our regularly scheduled in-person vendor outreach events, we are pleased to announce that on July 15, 2020, GLWA conducted our first virtual training session on "Doing Business with the Great Lakes Water Authority." Over 70 individuals pre-registered for the virtual presentation, which was hosted by the Michigan Department of Transportation (MDOT). The presentation reviewed registering and navigating Bonfire as well as the ABC's of submitting a competitive bid or proposal to a GLWA solicitation. A copy of the presentation is located on the [GLWA vendor page](#). Thank you to all who participated, and we look forward to more events like these in the future!

What's Coming Down the Pipe?

Current Solicitations: Be sure to register in [Bonfire](#) to monitor new solicitations and contract awards.

Upcoming Procurements: Next Three to Nine Months - See page 2

Visit GLWA online! See the Vendors page at www.glwater.org or contact us via email at procurement@glwater.org.

Upcoming Solicitations August 2020

Category	Description	Budget Estimate
Water System (next three months)		
Construction	2001456 SPWTP 1958 Settled Water Conduit and Loading Dock Concrete – Springwells Water Treatment Plant (CIP #114016)	\$1,652,000
Maintenance Services	5-Year Sludge Removal and Disposal Services at Northeast, Springwell's & Southwest Water Plants	\$55,000,000
Design Build	Garland, Hurlbut, Bewick Water Transmission System Rehabilitation	\$5,000,000
Construction	1904231 – Flocculator Improvements – Northeast Water Treatment Plant (CIP #112006)	\$2,700,000
Engineering	North Service Center Pumping Station Improvements (CIP # 132016)	\$10,000,000
Construction	Phase II – 14 Mil Transmission Loop Project	\$91,000,000
Wastewater System (next three months)		
Design	Oakwood HVAC Improvements	\$500,000
Design	Study and Design of NWI Relief Sewer to Oakwood RTB	\$5,000,000
Design	Rehabilitation of Remaining CSO Outfalls and Some Trunk Sewers	\$7,000,000
Construction	Baby Creek Gate Repair	\$155,000
Construction	Baby Creek Chemical Feed Tank Repair	\$250,000
Construction	WRRF Rehabilitation of Ferric Chloride Feed System in PS-1 and Complex B Sludge Lines (CIP #211008)	\$7,500,000
Water System (next four to nine months)		
Design Build	WTP Ovation Workstation Upgrade Project (CIP 170303)	TBD
Construction	Springwells Water Treatment Plant Medium Voltage Electrical System Replacement (CIP #114002 Project B)	\$30,000,000
Design Build	Southwest Water Treatment Plant Chlorine Scrubber and Raw Water Screen Replacement (CIP #113006)	\$6,000,000
Wastewater System (next four to nine months)		
Progressive Design Build	Baby Creek Outfall Improvements Projects (CIP #277001)	TBD
Design	St. Aubin Chemical Disinfection & Screening Improvements	TBD
Design	Control System Upgrade – St. Aubin, Lieb, and 7 Mile CSO Facilities	TBD
Design	WRRF Rehabilitation of the Circular Primary Clarifier Scum Removal System (CIP #211009)	\$1,000,000
Design	WRRF Improvements to Sludge Feed Pumps at Dewatering Facilities (CIP #213006)	TBD
Design	WRRF Rehabilitation of the Secondary Clarifiers (CIP #212007)	\$700,000
Maintenance	Crane Services	TBD
Services	Actuator Maintenance	TBD
Maintenance	UPS Maintenance and Repair Services (CSO/WRRF)	TBD
Construction	Rehabilitation of Outfalls – Phase III (B-39)	\$7,000,000
Construction	Rehabilitation of Woodward Sewer	\$26,000,000
Construction	Rehabilitation of CSO Outfall Backwater Gates	\$5,000,000
Enterprise (next four to nine months)		
Information Technology	Project Management Information System	TBD
Facilities	HVAC Repairs and Maintenance	TBD

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

Acronyms	
WRRF: Water Resource Recovery Facility	CSO: Combined Sewer Overflow

Office of the General Counsel – August, 2020

- ***COVID-19:*** The Office supports GLWA's response to the COVID-19 pandemic, including participating in GLWA's COVID-19 Task Force, review of COVID-19 related laws and Executive Orders. Randal Brown was a panelist at the AWWA discussion on Legal Issues and COVID-19.
- ***NPDES ACO Dismissal:*** The Office assisted in preparing documents to have the ACO dismissed.
- ***Legislative Updates:*** The Office has reviewed and provided comments on proposed House Bills 5812-5815 regarding changes to the Natural Resources and Environmental Protection Act. 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 and water assistance bills.
- ***Gordie Howe International Bridge:*** GLWA submitted its relocation reimbursement request to MDOT.
- ***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.
- ***Grosse Pointe Farms Stand-by Water Supply Service Contract:*** The contracts negotiation team is working to secure a long-term, automatically renewing stand-by water supply service contract with the City, which maintains its own water supply system. Periodically, GLWA (and DWSD before) has provided service to the City on a short term, emergency basis without a written agreement. This effort will secure a SOP and charge methodology for the foreseeable future. A draft agreed upon among the negotiation teams is now with the City for approval by its City Council.
- ***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 partnered with IWC staff to conduct webinars for member partners. Additionally, the Office continues to work with the Industrial Waste Control (“IWC”) Group and external stakeholders on finalizing and implementing an updated IPP. To date, 21 communities have passed a concurring resolution. 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.
- **Real Estate:** The Office is negotiating easements related to support the 14 Mile Road redundancy project, Baby Creek CSO infrastructure improvement project. The Office is negotiating the acquisition of property to support the NEWTP repurposing, which will be presented to the Legal Committee. The Office is negotiating the acquisition of property for the Newburgh and Ypsilanti pump stations. 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 a class action lawsuit regarding IWC charges. One lawsuit was filed against GLWA by a current employee seeking to enforce an arbitration award. Due to the COVID-19 pandemic, the Courts have not resumed civil jury trials, however, GLWA continues to pursue opportunities to settle cases.
- **Labor Relations:** The Office continues to provide legal advice to Organizational Development on labor relations and employment matters.
- **Lease Arbitration:** The City and GLWA settled the pending arbitrations.
- **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:	23
Contracts drafted or revised:	78
Subpoenas/Information requests received:	3
Subpoenas/Information responded to:	4