



Office of the Chief Executive

735 Randolph Street, Suite 1900

Detroit, Michigan 48226

December 21, 2017

The Honorable
Board of Directors
Great Lakes Water Authority

Dear Chairman Daddow and Directors:

Regarding: CEO's Report – December, 2017

Happy Holidays! As GLWA completes its second year of operations, we are celebrating our successes to date and working diligently to have more to celebrate in 2018!

It's been a short three weeks since my report of November 29 and yet much has happened with our primary efforts focused on Financial Planning with the Operations and Maintenance Budget, the Capital Improvement Plan and a host of efforts and projects related to FY19 charge development advancing through various staff and member engagement processes.

With the goal of an uncontentious year and concluding the charge development process well ahead of last year's schedule, multiple meetings with our members have moved the water contract reopener process, the Water Units of Service recommendation for non-mastered customers and the Capital Improvement Plan forward with significant progress to date.

Significant milestones are coming in January as we anticipate presenting the proposed Biennial Budget and Financial Plan to the Audit Committee on January 5, 2017 followed by a presentation to the Board on January 10, 2017. The Proposed FY2019 Water and Sewer Revenue Requirements to be presented to members on January 11, 2018 with proposed Water and Sewer Service Charges presented at the Board meeting on January 24, 2018 followed by proposed charges to members on January 25, 2018.

Once again as we close out 2017, Happy Holidays!

PLANNING SERVICES

Asset Management and CIP Group

The first version of the draft 2019 – 2023 Capital Improvement Plan (CIP) has recently been presented to the GLWA CIP Committee and to the Asset Management/CIP Customer Outreach Work Group. Board members, customers and stakeholders are encouraged to review this document and send questions or comments to Jody Caldwell at Jody.Caldwell@GLWater.org preferably by January 5, 2018. However, throughout the process all feedback, comments and suggestions are welcomed. The draft CIP is located at the following URL: <http://www.glwater.org/about-us/capital-improvement-planning-committee/>

In December, the Authority negotiated the terms of a mutually agreeable Data Sharing Agreement (DSA) with the State of Michigan to ensure data security for participation in the Michigan Infrastructure Asset Management Pilot program. This executed DSA and requested data has been submitted. The results of the pilot will help to build a culture of asset management across the state and create a mechanism for coordinated planning and communication across asset owners.

Systems Planning Group

The Outreach Team is gearing up for the final One Water Partnering meeting of 2017. The meeting will focus on planning for 2018 and implementing the One Water Partnership Agreement. Other agenda items will include a presentation of the 2017 GLWA Outreach Scorecard results, the 2018 Co-Chair Election and introductions to the new third-party facilitation team. The meeting will take place at the MSU Education Center in Troy on December 20, 2017 from 10:30 a.m. to 2:30 p.m.

Facilitation Training hosted by Project Innovations is well underway with two sessions held so far with over 20 members participating. The sessions have focused on effective group dynamics and creating participation, as well as various exercises involving public speaking and other communication skills. Feedback from attendees has been positive and the group looks forward to the next two sessions.

GLWA has been reviewing transmission main redundancy options in two areas. On December 4, 2017, GLWA met with members on the west side of the water system to review the redundancy options along the 14 Mile Transmission Main. Several alternatives had been discussed previously at the Water Analytical Work Group meetings in May and September 2017. GLWA was encouraged by the attendance of this meeting and was happy to see the west side of the systems well represented.

November Customer Outreach Meeting Attendance

<u>Meeting</u>	<u># Attended</u>
Water Analytical Work Group (11/1)	45
Wastewater Master Plan Steering Team (11/3)	24

PLANNING SERVICES (continued)

The wastewater master plan has developed two new subgroups to further discuss details of the plan. The Model User Group will have detailed discussions on model development and calibration. Once the regional sewer system model is completed in 2018, application of the model will be discussed. The Regional Collaboration Group will begin discussing the overall direction of the wastewater master plan.

System Analytics and Meter Operations Group (SA&MO)

The Wastewater Analytics Task Force (WATF) met on December 1, 2017 and set a new course for the future. The group will meet more frequently in 2018 and bring together many of the smaller subcommittees into the main meetings. The group will maintain its current functions as well. The next meeting will be on January 5, 2018.

In the December 12 Water Charges Work Group, Consultants Black & Veatch presented recommendations in their Phase I report of the “Units of Service for Non-Master Metered Customers and System Water Audit”. The Phase I results included the recommendations for Units of Service including average day, max day, peak hour, distance, and elevation for City of Dearborn, City of Detroit, and City of Highland Park. Good feedback was received from those who participated in the meeting. The next steps are for Black & Veatch to provide answers to the members’ questions and report out to the group on December 20, 2017 at the One Water Partnering meeting.

The Group is continuing to make progress on upgrading the legacy head-end communication system for Wholesale Automated Meter Reading (WAMR) meters. The team is developing and testing software to replace and enhance current system functionality to communicate with field devices over the radio network infrastructure. The new headend system is currently receiving test messages from two radios, which are receiving data from 50 remote metering sites. The team is concurrently developing a user interface to integrate the new headend system into the WAMR Portal. The switch to the new system is planned for mid-January. At the conclusion of the project, the WAMR system data collection should be more reliable and robust.

The GIS project to geocode the information from the Detroit Regional I/I Partners (DRIP) study conducted in 2005 has been completed and released to the Production environment. The DRIP districts, sub-districts, and meters have been geocoded and data linked to the GIS elements. This information can help the Wastewater Analytics Task Force’s D+ Metering subgroup determine areas of Detroit that may be metered to improve the metering in D+ service area.

Energy Management Group

The Energy Management Group continues to focus on the following three (3) significant projects; the Investment Grade Energy Audit, the Utility Billing Managed Services Project, and the Aquasight Real-Time Intelligence Advisor Projects. The first two projects are working through various elements of procurement while the Aquasight project is in full swing with two main elements:

PLANNING SERVICES (continued)

The Adams Pump Station Atlas Application and the Water Resource Recovery Facility's (WRRF) Apollo Application. The Atlas App focuses on operations and pump efficiency and is running live with no technology or performance issues. The WRRF Apollo Application will collect process data and energy usage from the WRRF, perform analysis on this data and advises on operational modes that may be more efficient. Apollo is scheduled to be incrementally rolled out beginning in December. Additional processes that have been investigated this month include the incorporation of lab data into the application.

Research and Innovation

The Research and Innovation group hosted a technical presentation of an online optical monitoring product by ZAPs technologies. This optical monitor uses no chemical reagents and can analyze a large suite of constituents including those which have a long lead time using traditional methods, such as Biochemical Oxygen Demand, Carbon Biochemical Oxygen Demand and E-coli. This instrument provides online, real-time data and performs self-cleaning and calibrations. Grand Rapids achieved significant annual electrical savings in their UV disinfection system and Corvallis WWTP achieved significant reduction in chemical usage using this system. A pilot test is being planned at the WRRF to determine the optical monitor's capability to inform staff regarding maintaining adequate disinfection while minimizing chemical usage.

The second quarterly meeting of the WRRF Innovation Steering Team meeting was held. The meeting included a review of the proposed five-year innovation and research plan and the launch of the Michigan State University partnership, titled Energy Recovery Assessment.

Research & Innovation and Wastewater Engineering staff members attended the 14th meeting of the Ohio Valley Technology Assessment Group (TAG) held in Louisville, Kentucky. Isle Utilities, a global consulting firm, has organized regional technology assessment groups to support evaluation of innovative and emerging technologies and solutions to utilities challenges. GLWA attended to observe for possible formal membership. The technologies discussed were a product that accelerates microbial activity, software for real-time environmental management of odor issues, a cloud-based intelligence platform that combines operational data and cost data to optimize both compliance and cost effectiveness, and a web-based predictive maintenance platform.

WASTEWATER OPERATING SERVICES

Wastewater Operations Group

The (WRRF) was in compliance with all National Pollutant Discharge Elimination System (NPDES) and Michigan Department of Environmental Quality (MDEQ) water quality permits in the month of November 2017.

WASTEWATER OPERATING SERVICES (continued)

Engineering & Maintenance Groups



Construction Engineering

The Construction Engineering Team is continuing work on several WRRF projects including: Rouge River Outfall Disinfection project; Primary Clarifier Rehabilitation project; and Aeration Deck Improvements project. The Biosolids Dryer Facility construction work will be completed in December 2017 with the last emission scrubber installation (pictured).

The WRRF Construction Engineering Team continues to assist the Operational Process Teams with process improvements.

Design Engineering

The WRRF Design Engineering Team has recently revisited its commitment to the review of shop drawings, thereby helping to ensure the quality of the work being performed by our vendors complies with the contract documents. A workshop focused on the following items was provided to the Team: liability associated with submittal review; processing submittals and the Owners role; mechanics of submittal reviews; and review of the Engineers Joint Contract Documents Committee (EJCDC) documents and Construction Specifications Institute formats.

The WRRF Design Engineering Team also continues to support the Operational Process Teams by proactively resolving design related issues. In addition, two projects are currently in the design phase: Central Offload Facility project; and Relocation of the Industrial Waste Control (IWC) Division and Analytical Labs to the WRRF.

Maintenance

The WRRF Maintenance Team, along with the Operations Team, has paired with GLWA's Transformation Group to launch a 5S project in Pump Station #1. This project will develop the WRRF specific 5S process to be used going forward.

The WRRF Maintenance Team continues to complete regularly scheduled preventative and corrective maintenance work orders.

WASTEWATER OPERATING SERVICES (continued)

Industrial Waste Control (IWC)

A requisition for document scanning and destruction services is being prepared. The objective of this project is to reduce the volume and storage requirements of 1.5 million hard copy documents maintained by the IWC group and create a retrievable digital source of documents used for regulatory programs. The goal is to complete this project by October 2018.

Phase I of the Pretreatment Information Management System (PIMS) software implementation project was initiated on November 29, 2017. This “go live” phase activates industrial user account management, six month data reporting, and permit creation features of the PIMS software. This phase will continue through January 2018 to validate operation and implementation functions. Phase II of the project, sampling and sample management, is scheduled for implementation in March 2018. The implementation of the new Laboratory Information Management System (LIMS) is also progressing on schedule.

WATER OPERATIONS

Southwest Water Treatment Plant

Process Safety Management Audit

The Southwest Water Treatment Plant was acknowledged by GLWA Environmental Health and Safety Coordinator, Marcus Askew, for the successful completion of the MIOSHA Process Safety Management (PSM) Audit that took place in November 2017. We express our gratitude to the team members that participated in the review and information gathering phases of this audit. This example shows great Preventive Maintenance scheduling, communication, and teamwork on the part of all members of the Southwest team. Congratulations and continue the great work!

Testing and Power Transfer of Switchgear and Generator Systems

Congratulations to the Southwest team for the successful testing and power transfer of switchgear and generator systems. DTE needed to de-energize Transformer 2 for repairs to incoming feed lines. Also, there was an ongoing project that isolated the lower header of the distribution system. These situations necessitated reconfiguration of the power feeds and water distribution within the plant.

This team developed and executed the plan to safely de-energize and re-energize Transformer #2 without any interruptions to the plant processes. This plan included opening valves to be able to use units on Transformer 1, working with the Systems Control Center to put high-lift pump #3 in-service, performing a close power transition from bus #1 to bus #2, making sure the emergency generators would not prematurely activate, and reversing these tasks. Each task was successfully and professionally done. The level of skill and cooperation that made this project go so smoothly was impressive.

WATER OPERATIONS (continued)

Field Services

Hydrant Winterization

Hydrant winterization has been completed and repairs are being scheduled from findings.

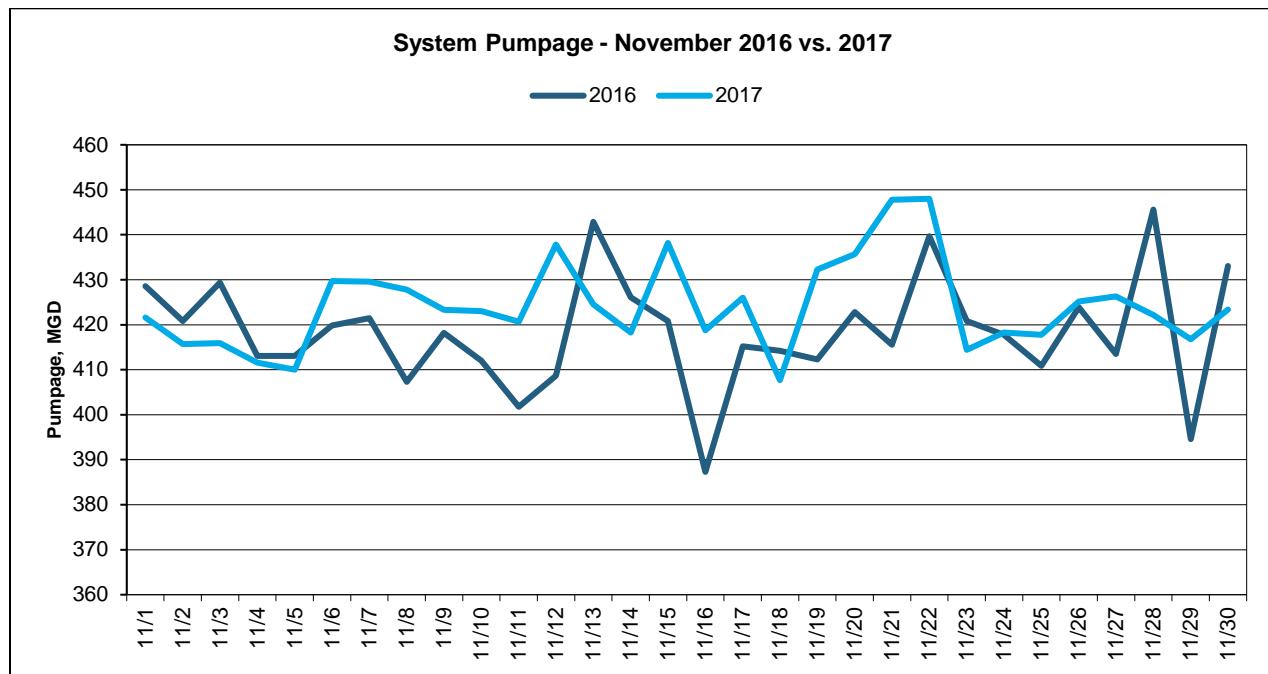
At the separation of GLWA and DWSD, all fire hydrants, as a general rule, were to fall under the jurisdiction of DWSD for maintenance and winterization. However, a number of hydrants were identified on GLWA facilities that did not fit this general rule since they were within the secured areas of GLWA booster stations, water treatment plants, sewage lift stations, CSO basins, and the Water Resource Recovery Facility (WRRF). The Asset Management and GIS groups teamed with the Field Services group to develop an overall program to locate, assess and winterize the approximately 200 fire hydrants operated by GLWA using GPS, GIS and a real-time tablet application to complete the work. A comprehensive program was initiated that will allow for the annual winterization, maintenance and repair of the hydrants each year. This spring, the program will be augmented to include hydrant testing to gather further information on fire protection capacity at each facility. Another example of “One Water One Team”!



Systems Control

November 2017 – Pumpage

System pumpage for November 2017 was 1.4% higher than November 2016.



INFORMATION TECHNOLOGY

The IT Infrastructure Delivery team in conjunction with IT Security & Risk has installed an Intrusion Prevention System (IPS) and firewall between the city of Detroit and GLWA network. Initially this will monitor traffic coming from the city of Detroit network and allow IT to identify and categorize this traffic. This will enable IT to block malicious traffic going forward.

The IT Infrastructure Delivery team has completed implementation of a new storage device (data domain) that will be used for primary back up at WRRF. This places the backup destination at a different location from the servers being backed up.

The IT Security and Risk Management team continues to oversee the ongoing cybersecurity awareness training to all GLWA email addresses. This training raises users' awareness of and knowledge about cybersecurity safe practices, and is part of a comprehensive cybersecurity program that is designed to mitigate the cybersecurity risks that GLWA faces.

The IT Applications Delivery team, in collaboration with Organizational Development and Financial Services, has successfully implemented the latest version of Ceridian Dayforce without any major issues which is a significant improvement from the last upgrade. The upgrade ensures that GLWA will be current with all enhancements and compliance features provided by the hosting vendor.

The IT Applications Delivery team also implemented the first phase of the new Pretreatment Information Management System (PIMS) the week of November 28. This go-live included migrating and aligning old legacy PIMS data within the new application, as well as, deploying several application modules. The second and final phase of PIMS is scheduled to be completed the end of February 2018 and will be conducted in sync with the new Laboratory Information Management System (LIMS) system go live. Note: the current legacy LIMS and PIMS systems have been running since 1998 and 2003 respectively.

The IT Service Delivery team's monthly security patching of GLWA's desktops and notebooks reached 97%. A key security release addressed with this update closed a discovered vulnerability with Adobe Flash player allowing for remote code execution potentially exposing data.

The IT Service Delivery team has deployed new Dell Rugged Toughbook's to GLWA Planning Services and Field Services teams as a result of the most recent firewall security upgrade. The new security policy prevents access to GLWA network from devices running Windows XP which is an obsolete and unsupported operating system.

The IT Service Delivery team has upgraded the IT ticketing and service portal (Quest Kace) to the latest release. Enhancements were made to the function and overall look of the application. Some key enhancements include:

- Adding a rich text editor which allows for customized knowledge base articles with hyperlinks, images and embedded help videos inline within the application.

INFORMATION TECHNOLOGY (continued)

- Adding the ability for leadership team members to view submitted tickets from team members reporting to them. Information on how to access this new feature is expected to be released in January 2018.

The IT Service Delivery team deployed new Internet browser policies to all PCs, laptops, and tablets in December to improve access to the intranet portal page. Internet Explorer and Google Chrome now default to the following URL: <http://sp.dwsd.org>.

In support of the upcoming new LIMS implementation, nine instrument workstations and two barcode printers were added to the GLWA network located at Michigan Center for Higher Technology. The new setup aligns to new LIMS processes.

PUBLIC AFFAIRS GROUP

Public Affairs has published the sixth edition of GLWA's quarterly team member newsletter, WaterWorks Magazine. This edition features a cover story on our team members' participation in the annual American Cancer Society Fight against Breast Cancer Walk, as well articles on how GLWA's Asset Management philosophy can help team members with preventative maintenance at home, the value of LED lighting, and our new One Water Wellness program. Edition Six is available online and in print at all of our facilities. There is also a special "throw back" edition of the WaterWorks Magazine team page.

On the heels of the successful first collaborative marketing/PR effort with our member communities (the Hazardous Waste Collection Video with Wayne County), Public Affairs is now working with Farmington Hills to produce a feature on the value that water towers bring to communities. As was the case with the hazardous waste video, the water tower video will be shared via social media and local cable channels, sent to our members and placed on our website. The team expects to launch this second video in early February.

As a part of GLWA's ongoing brand awareness efforts, CEO Sue McCormick was featured in the annual "Outlook 2018 Edition" published by Crain's Detroit Business. Sue's feature talks about the importance of asset management. Here is the link to the article:

<http://www.crainsdetroit.com/article/20171217/news/647886/sue-mccormick-on-the-need-to-evaluate-our-water-system>.

SECURITY AND INTEGRITY

During the month of November and December, the Security and Integrity Group completed the 2017 Tabletop Exercise After Action Report.

The Group held an Emergency Control Center Response Drill and is currently updating its Emergency Response for 2018. In addition, several team members attended the Michigan Water/Wastewater Agency Response Network (WARN) Emergency Response Functional Exercise at Michigan State Police.

GLWA's Security and Integrity held a Security and Integrity Forum at the Oakland County Emergency Management Office, and began discussions for an upcoming Forum in Washtenaw County.

ORGANIZATIONAL DEVELOPMENT

Training

The Training team is preparing to roll out new Leadership and Safety classes. Classes include Project Management, Diversity and Inclusion, Media Training, Trenching and Shoring, Work Zone Traffic Safety and General Construction Safety. These expanded class offerings will assist our team members by ensuring they have the necessary training and skills to complete daily tasks.

Talent Management

GLWA has 47 job postings for positions across the organization. The open positions are posted on our external website. As of December 12, 2017, our staff count is 926. New employee orientation continues on the third Friday of each month.

On December 13, 2017, GLWA was one of four employers at a hiring event at Macomb Community College. The college's Workforce Certificate Training program will be graduating a cohort of Controls Technicians and Robot Technicians who will be seeking Industry employment. These students have received the hands-on training necessary to perform all the functions required of a Controls or Robot Technician. GLWA is continuing to be actively engaged in these events to attract talent to our organization.

Apprenticeship Program

Nineteen (19) of the Apprentices have completed their first course TAEL- 106: Electronics Theory on December 13, 2017. They will be registered for two classes starting January 9, 2018. Fourteen of the Apprentices (11 from Cohort 1 and 3 GLWA incumbent team members) have met the qualification for their first increase in pay per the apprenticeship agreement.

ORGANIZATIONAL DEVELOPMENT (continued)

Labor/Management Meeting

GLWA partnered with AFSCME and the City of Detroit in another MERC Training on December 14, 2017. In attendance were representatives from the Michigan Employment Relations Commission and GLWA partners. The morning and afternoon sessions discussed key points and services that MERC provides to employers and labor organizations.

One Water Wellness Program

GLWA is in its final two weeks of the 61-day wellness challenge. The challenge ends on December 31, 2017.

KUDOS AND STAFF ACCOLADES

We Care

The Lake Huron team worked together to collect everything needed to make a Thanksgiving Day meal for a struggling family whose children attend the nearby elementary school. The family consisted of a single mom with five children ranging in ages 2 through 10. When all of the items needed for the meal were collected, employees started collecting food for breakfast, lunch and snacks for the children while they are on break from school. In addition, the team collected enough money to give the family a \$100 Meijer gift card.



LEGAL

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

FINANCIAL SERVICES AREA

The Financial Services Area Report will be provided separately to the Chief Executive Officer's Report.

Respectfully submitted,



Sue F. McCormick
Chief Executive Officer

SFM/dlr