

# **YEAR IN REVIEW**

# **2021**

**GREAT LAKES  
WATER AUTHORITY**





- 04 | Letter from the ICEO
- 05 | Sue McCormick, GLWA’s Founding CEO Retires

06 One Water: Our System and Operations

- 07 | Measuring Success
  - 07 | KPIs and Performance Indicators
  - 08 | NACWA Excellence in Management Gold Award
- 09 | Financial Sustainability
  - 09 | Commitment to Four Percent Promise and a Strategy for Affordability and Operability
  - 10 | Measuring Performance Against Peers
  - 11 | Delaying Charges as COVID-19 Pandemic Continued
  - 12 | B.I.D. Program Launches
  - 13 | Record of Clean Audit Results
  - 13 | Distinguished Budget Award
  - 13 | Excellence in Financial Reporting Award
- 14 | Operational Optimization and Sustainability
  - 14 | Unprecedented Wet Weather Events & Climate Change Create Major Challenges
    - 16 | EPA Visit
    - 16 | Pump Station Tours
  - 17 | Capital Improvement Plan
  - 19 | CSO Long Term Control Plan
  - 20 | Long-Term Water and Wastewater Planning
  - 23 | Utility of the Future Today Recognition

24 One Team: Regional Collaboration

- 25 | Member Partner and Stakeholder Collaboration
  - 25 | Member Outreach
  - 26 | AWWA Memberships

- 26 | True Partnership Award
- 27 | One Water Partnership Scorecard
- 28 | WRAP Changes
- 32 | Construction/Capital Improvement Collaborations
- 38 | One Water One Team
  - 38 | Apprenticeship Program
    - 41 | Apprenticeship Week
  - 41 | Focus: HOPE’s \$250,000 MICA 3.0 Grant with GLWA

42 | Making Big Waves — Accomplishments

44 One Mission: Water of Unquestionable Quality; Effective and Efficient Services

- 45 | Water Quality
  - 45 | Awards
- 46 | Monitoring for Emerging Contaminants
  - 48 | Lead and Copper
- 49 | Innovation
  - 49 | Proactive Buoy Monitoring in Detroit River
  - 50 | Satellite Leak Detection Technology Trial/Pilot
  - 50 | University Partnerships
  - 51 | Michigan Center for Freshwater Innovation

52 | What’s Next for GLWA

54 | About GLWA

- 54 | Water System
- 56 | Wastewater System

- 58 | Board of Directors
- 59 | Executive Leadership Team
- 60 | Mission/Vision/Values







# Letter from the ICEO

As I reflect back on 2021, it certainly has been a year of unexpected happenings and serious challenges. COVID-19 continued to change the world and how we function in it. The employment market had us competing at new levels to retain and attract talent. And, certainly, our ever more volatile climate created a series of historical wet weather events that devastated parts of southeast Michigan last summer both on the water and wastewater sides of our regional system.

Through all of this, our core values, chief among them collaboration and determination, have held us together. They have been, and will continue to be, our strength. We are stronger when we all work together.

I am incredibly thankful for the men and women of GLWA, each and every one of them are dedicated public servants, who are focused on doing their level best to help protect the health and safety of the 112 communities we serve throughout southeast Michigan.

I am also proud of how our team members, member partners and many other stakeholders have worked side-by-side since the events of last summer to solve problems, address emergencies and begin formulating new ideas to help us improve our services and create a more resilient system. This type of forward thinking will not only help us to make it through the challenges that 2021 brought us, but it will also help us to learn from them and be stronger, smarter and better in 2022 and beyond.

Our 2021 *Year in Review* provides us with an opportunity to look back at the year and tell the story of our accomplishments, as well as our challenges and how we addressed them through three distinct lenses:

One  
Water

One  
Team

One  
Mission

Throughout, you will see a strong theme of building resiliency. Whether that be building resiliency in our team, our infrastructure or the system as a whole.

It is my privilege and an honor to serve as GLWA’s Interim Chief Executive Officer, and I will use my knowledge of the system and experience with its operations and operators to provide a sense of stability and continuity while I am in the position to continue moving GLWA forward.

I want to express my sincere thanks to everyone throughout our One Water team for your support of our organization over the last year. I look forward to what we will continue to accomplish together!

Take good care.

*Suzanne R. Coffey*

Suzanne R. Coffey  
Interim Chief Executive Officer

# Sue McCormick, GLWA’s Founding CEO, Retires

After leading GLWA through its stand-up and five years of strong operational performance, Sue McCormick retired from her role as Chief Executive Officer in September 2021.

As GLWA’s first CEO, she served the Authority’s member partner communities across the region with a keen focus on optimizing the operations of the regional system and increasing collaboration and partnership with its member partners.

While Sue’s accomplishments as CEO were many, several stand out above the rest, including the “stand-up” of the Authority, the creation of GLWA’s One Water Partnership Agreement and Member Partner Scorecard, the utility’s commitment to serving as a Hub Utility, the development of GLWA’s Water and Wastewater Master Plans, and the work the Authority has done toward affordability.

Her legacy lives on in the *One Water, One Team* culture of innovative “can-do” collaboration that she established at GLWA!

We wish her a long, happy retirement traveling the highways and byways of the U.S. in her new RV with her grandkids and her two beloved Yorkshire Terriers, Lily and Lola.

*“I am extremely proud of the many accomplishments that we have made during the first five years of GLWA’s operations. It has been an incredible opportunity to work with our member partner communities to create a truly collaborative and lasting partnership that will serve the region for decades to come. GLWA has an amazing team that has invested so much of themselves in service to each other and this region. I can’t thank them enough for their hard work and I look forward to observing what the future holds for GLWA as it builds upon the strong foundation that we created in the first five years of GLWA’s operation.” – Sue McCormick*

In recognition of the positive impact Sue had on GLWA and the collaborative approach she took in her work, especially with our Member Partner Community, she was awarded GLWA’s highest honor, the True Partnership Award, during the One Water Partnership meeting in September 2021.





# ONE WATER

Our System and Operations

## Measuring Success

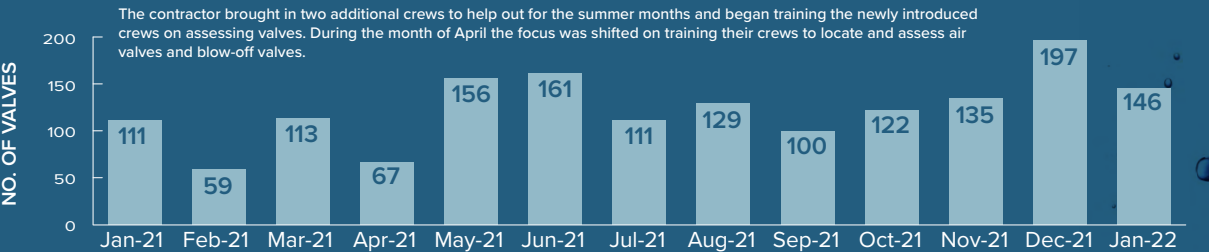
### KPIS AND PERFORMANCE INDICATORS

GLWA has, since its inception, been committed to a culture of innovation and continuous improvement and embraced Effective Utility Management (EUM) and its 10 attributes to guide its path toward effective and sustainable operations.

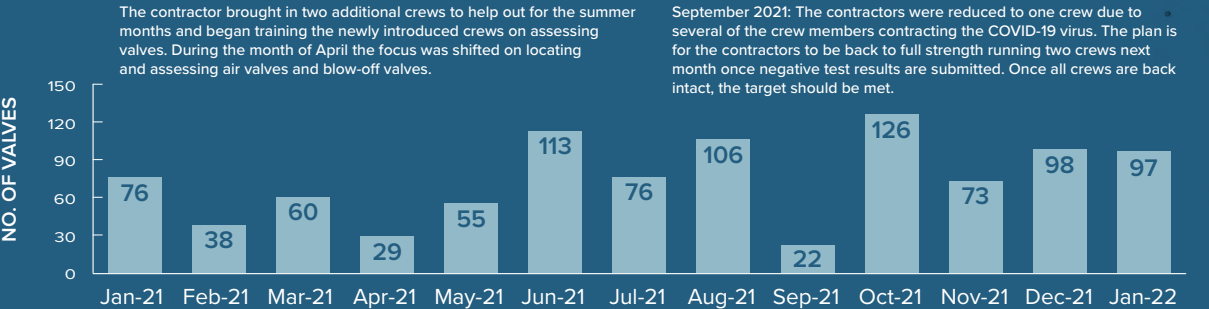
The Authority aligns its key performance indicators (KPIs), which are reported monthly to the Board of Directors, with the EUM framework’s 10 attributes. These KPIs touch on all operational areas within GLWA and provide the operational and administrative teams with important insights into progress and challenges toward meeting their identified goals.

KPIs are one tool in GLWA’s toolkit for building a resilient system. Take for example, its KPIs focused on Valve Assessment and Exercising. The goal of these KPIs is to locate, visually assess, determine the condition and positions of the valves in the regional system, and then systematically exercise them on a regular cycle. This proactive review calls out any issues for repair or replacement, which can then be completed before they result in a larger issue or impede GLWA’s maintenance or emergency response. It also helps to ensure that the system can consistently meet and/or surpass member partner service expectations through fewer unplanned interruptions.

### INFRASTRUCTURE STRATEGY AND PERFORMANCE — WATER AND FIELD SERVICES VALVE ASSESSMENTS



### INFRASTRUCTURE STRATEGY AND PERFORMANCE — WATER AND FIELD SERVICES VALVE EXERCISING



**Note:** The contractor began exercising valves in the month of December. A seasonal target has been set for the winter season with expectations that the number of valves exercised will increase in the coming spring and summer months.

**Infrastructure Strategy and Performance:** GLWA’s ultimate goal is to locate, visually assess, determine the condition and valve position, and fully exercise system valves.



NACWA EXCELLENCE IN MANAGEMENT GOLD AWARD

In 2021, GLWA was recognized by the National Association of Clean Water Agencies (NACWA) with its Excellence in Management Gold Award, which recognizes public clean water utilities that have implemented and sustained successful programs that address the range of management challenges faced by public clean water utilities in today’s competitive environment.

GLWA was one of only five utilities in the U.S. to receive this honor for its commitment to sustainable, successful programs that exemplify the [10 Attributes of Effectively Managed Water Sector Utilities](#).

This recognition shines the spotlight on the Authority as a Water Sector utility leader committed to overall improved performance and resiliency, environmental compliance, long-term planning and member partner satisfaction.

One point of recognition called out in the award was GLWA’s commitment to Infrastructure Strategy and Performance, including its nationally recognized Capital Improvement Plan, as well as the work the Authority has done in the last several years related to Asset Management, specifically the development of GLWA’s Strategic Asset Management Plan and the launch of its Linear System Integrity Plan and Program.



Excellence in Management Gold Award

Financial Sustainability

COMMITMENT TO THE FOUR PERCENT REVENUE REQUIREMENT PROMISE AND A STRATEGY FOR AFFORDABILITY AND OPERABILITY

In March 2021 the GLWA Board of Directors adopted a budget for Fiscal Year (FY) 2022, which began on July 1, 2021, and, to be conscious of the myriad of pressures facing member partner communities, limited the charge adjustments for the fiscal year.

The FY22 budget included an annual increase of 1.2 percent for the water system, and a 2.0 percent decrease for the wastewater system, overachieving on GLWA’s commitment of a four percent maximum increase to its revenue requirement (i.e., budget), as agreed upon in the Authority’s foundational documents.

With this budget approved and in place, the Board also approved charges for FY22. The average charge adjustment for the wastewater system actually decreased by 0.6 percent, and the average charge adjustment for the water system was a modest 1.5 percent increase.

The GLWA Board has kept an eye toward keeping GLWA charges as affordable as possible.

AVERAGE SYSTEM CHARGE ADJUSTMENTS (2016–2022)

Year	Water System	Wastewater System
2018	1.8%	-0.7%
2019	1.8%	0.1%
2020	0.6%	0.8%
2021	3.2%	2.0%
2022	1.5%	-0.6%
Five Year Average	1.8%	0.3%



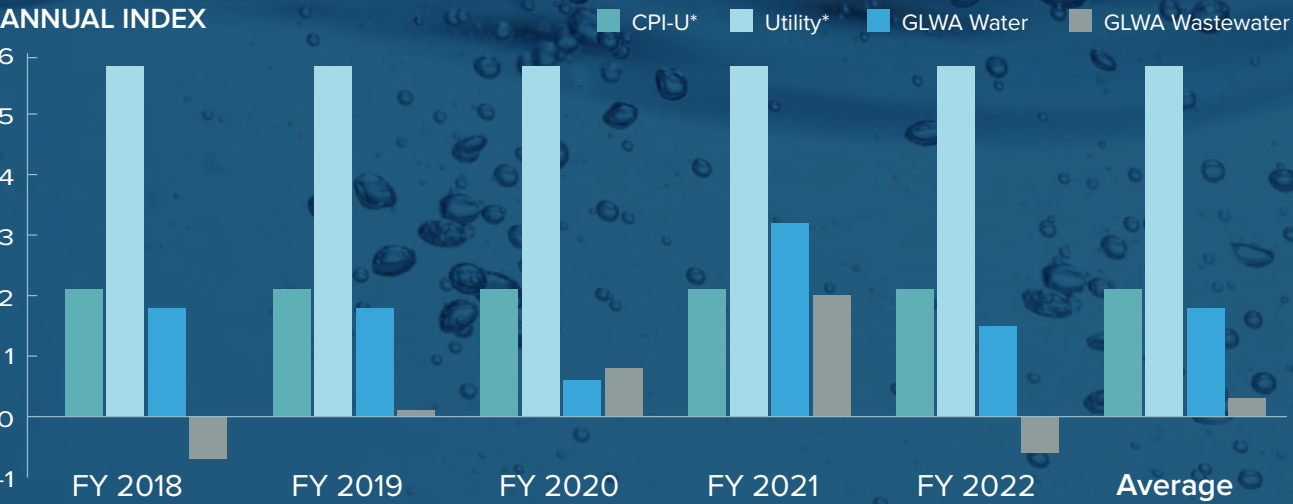
MEASURING GLWA’S PERFORMANCE AGAINST UTILITY PEERS

GLWA measures its performance against the established utility indexes. The GLWA system-wide charge increase (or in some years, a decrease) is slightly below the Consumer Price Index for Utilities (CPI-U) and is consistently well under the Utility Rate Index for the 50 largest cities.

In particular, it is important to note that GLWA’s average annual adjustment, over a five-year period, is lower than the CPI-U (0.9% vs. 2.1%). GLWA also performed significantly better than the Utility Rate Index for the 50 largest cities (0.9% vs. 5.8%). See Annual Index chart below.

HISTORICAL GLWA “SYSTEM CHARGE” ANNUAL INDEX

Annual	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Average
CPI-U*	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Utility Rate Index*	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
GLWA Water	1.8%	1.8%	0.6%	3.2%	1.5%	1.8%
GLWA Wastewater	-0.7%	0.1%	0.8%	2.0%	-0.6%	0.3%
GLWA Overall	0.3%	0.7%	0.7%	2.5%	0.3%	0.9%



\*Source: Black & Veatch 50 Largest Cities Rate Survey - 2019 - average 2001-2018

DELAYING CHARGES AS THE COVID-19 PANDEMIC CONTINUED

Committing to financial sustainability means being cognizant of the cost of water and wastewater service in the region. As a result of COVID-19, GLWA delayed implementation of proposed FY21 charge increases twice—from July 1, 2021, to October 1, 2021, and then again from October 1, 2021, to January 1, 2022.

As the pandemic continued, the Authority challenged itself to control any charge adjustments for the upcoming FY22. The outcome was an average system charge adjustment for water at 1.5 percent increase and an average wastewater system charge decrease of 0.6 percent.



B.I.D. PROGRAM LAUNCHES

In 2021, GLWA formally launched its new Business Inclusion and Diversity (B.I.D.) Program. Initiated and approved by the GLWA Board of Directors in November 2020, the B.I.D. Program is a procurement solution designed to maximize economic opportunities for small, minority-owned and disadvantaged business enterprises within GLWA’s service area so that they may effectively compete to do business with the Authority.

Communication with and support of the vendor community was a central focus of the B.I.D. Program team during the first year of the program. The B.I.D. Program team presented at vendor outreach events hosted by various local, federal, state and municipal organizations. In addition, the B.I.D. Program team presented the program at all Pre-Bid and Pre-Proposal Meetings as well as hosted virtual vendor introduction meetings where vendors had the opportunity to ask questions about the B.I.D. Program in a one-on-one setting.

The B.I.D. Program requires vendors to submit, for all solicitations budgeted at \$1 million or more, a Business Inclusion and Diversity Plan that addresses their efforts to include Minority-owned Business Enterprise (MBE), Woman-owned Business Enterprise (WBE), Small Business Enterprise (SBE) and Disadvantaged Business Enterprise (DBE) subcontractors. GLWA’s B.I.D. Program also awards economic equity credit for vendors who have a business presence in the State of Michigan, GLWA’s service area, or within certain economically disadvantaged territories within the Authority’s service area.

To date, GLWA has awarded 11 contracts totaling over \$179.6 million under the B.I.D. Program requirements and has received over 94 Vendor Diversity Plans detailing targeted outreach efforts to help bring small, minority-owned and disadvantaged business enterprises into GLWA’s procurement process and help support economic development throughout the region that it serves.

B.I.D. PROGRAM FIRST YEAR SUCCESS



11  
contracts awarded



over  
\$179.6  
million total



over  
94  
Vendor Diversity  
Plans Received

GLWA CONTINUES RECORD OF CLEAN AUDIT RESULTS

For Fiscal Year 2021, which ended on June 30, GLWA continued to demonstrate its commitment to the goals of financial reliability and transparency in reporting, as well as continuous improvement in financial operations. This commitment was evident in the results of the Financial and Single Audit for FY21.

GLWA’s financial statements received an unmodified (clean) opinion from auditor Baker Tilly. In addition, there were no material weaknesses or significant deficiencies found in the Authority’s single audit.

This marks the sixth clean audit for GLWA.

“ Our record of clean audits at GLWA is a result of the financial controls and clear processes we have put into place. It can also be credited to the hard work and dedication of our Financial Services Area team members who are focused on ensuring GLWA remains financially stable and sustainable so that we can continue to provide our member partners with the level of service they deserve and require.”

– NICOLETTE N. BATESON  
Chief Financial Officer and Treasurer

*Excellence in Financial Reporting Award*

In addition to the Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award, the FSA team also received the GFOA Certificate of Achievement for Excellence in Financial Reporting for 2020 for the second time. The Authority was recognized for its comprehensive annual financial report for the fiscal year ending June 30, 2020. The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.

FINANCIAL SERVICES TEAM RECEIVES NATIONAL RECOGNITION FOR A JOB WELL DONE

*Distinguished Budget Award*

After submitting the FY21 and FY22 Biennial Budget and related FY21 through FY25 five-year financial plan to the Government Finance Officers Association (GFOA), GLWA’s Financial Services Area (FSA) was honored to receive the Distinguished Budget Presentation Award for the second year in a row.

GFOA established the Distinguished Budget Presentation Awards Program in 1984 to encourage and assist state and local governments to prepare budget documents of the very highest quality. To earn recognition, budget documents must meet program criteria and excel as a policy document, financial plan, operations guide, and communication tool.

The award recognizes the FSA team’s ongoing commitment to achieving the highest level of financial management and transparency throughout the organization, which is critical to GLWA’s long-term resiliency and sustainability.

CONGRATULATIONS TO THE ENTIRE FINANCIAL SERVICES TEAM!





# Operational Optimization and Sustainability

## UNPRECEDENTED WET WEATHER EVENTS & CLIMATE CHANGE CREATE MAJOR CHALLENGES

The historic rain events that occurred in the summer of 2021 impacted thousands of people across southeast Michigan. Specifically, on Friday, June 25, and continuing into Saturday, June 26, the region experienced an unprecedented rainfall event. This deluge of precipitation amounted to approximately eight inches of rain in less than 19 hours, which is more than typically occurs in the month of June and more than double the National Oceanic and Atmospheric Administration (NOAA) standard published for utilities.

A review of the rain gauge data for some gauges in the service area indicated that the rain event was far beyond the design standard which GLWA and all other collection systems in Michigan are held to, which is conveying a “10-year, one-hour storm.” That translates to an event that would statistically occur once every 10 years. Many gauges registered rain intensities beyond a 100-year event, and three gauges in the city registered a 1,000-year event.

Simply put, the amount and intensity of the rain overwhelmed the regional collection system, as it would have overwhelmed any collection system.

Although two reviews—one conducted internally by consultants hired by GLWA, and an independent investigation conducted by outside experts hired by the GLWA Board of Directors—have been underway, it was imperative to identify and address operational changes to increase GLWA’s preparedness and ability to respond as quickly as possible.

“As a regional authority, we have the unique ability to pivot our attention to look at both short-term demands like we have seen this past summer, but also how do we best prepare for the long-term, together. As the region continues to have discussions about the rain events and resiliency, we are seeing a recognition that the level of service the system provides for environmental protection is likely different than the level of protection that is needed for flood control. GLWA is positioned well in the region to lead these discussions with our local systems/member partner communities, regulators, and road agencies, thanks to the collaborative work that has already been done related to our new Wastewater Master Plan.”

– SUZANNE R. COFFEY  
Interim CEO

# Through the end of 2021, GLWA has:

1.

Modified its Regional Operation Plan by adding Supervisory Control and Data Acquisition (SCADA) Integration to provide regional and local system information in a single view

2.

Expanded its Emergency Coordination Channels and began holding regular Eastside and Westside member partner community meetings to discuss system operational issues that may uniquely impact them

3.

Installed Power Quality Monitoring Systems (PQM) units on the Connors Creek Pump Station, Freud Pump Station and Blue Hill Pump Station

- The PQM units are expected to provide advance notice regarding power outages and help in diagnostics of power quality related issues.
- Used in rain events in September and enabled GLWA to proactively bring team members, technicians from its power supply partners, and contractors on-site to staff through the three-day rain event to real-time troubleshoot any potential power issues.

4.

Began work with DTE to convert the external power supply at the Freud and Blue Hill Pump Stations

5.

Expanded Public Notification of Extreme Weather Events

6.

Engaged in the new Southeast Michigan Aging Infrastructure Group that was established in 2021 by the state of Michigan, which meets on a monthly basis to understand what can be done collaboratively to help address the critical issue of flooding in southeast Michigan. GLWA has team members actively engaged on all of the subcommittees and is taking a leadership role where appropriate

7.

Participated in the first of a series of Urban Flooding discussions that were convened by the Detroit City Planning Commission

8.

Engaged with a broad section of municipal and community groups, giving educational presentations on the flooding events, what happened and next steps to creating a resilient system





From left to right: U.S. Representative Debbie Dingell, Detroit Mayor Mike Duggan, EPA Administrator Michael Regan, then-GLWA CEO Sue McCormick, U.S. Representative Rashida Tlaib, U.S. Representative Brenda Lawrence, GWSD Director and GLWA Board Member Gary Brown

EPA Administrator Michael S. Regan Visits Detroit

On Thursday, July 8, 2021, GLWA hosted Environmental Protection Agency (EPA) Administrator Michael Regan, Detroit Mayor Mike Duggan, and U.S. Representatives Debbie Dingell, Rashida Tlaib and Brenda Lawrence at its Water Resource Recovery Facility (WRRF) for a news conference to discuss federal investment in water infrastructure and climate resilience, as well as to receive a briefing on GLWA’s regional planning and resiliency efforts and the operation of the WRRF.

Included in the news conference and briefing were then-CEO Sue McCormick, as well as then-Chief Planning Officer Suzanne Coffey and Navid Mehram, Chief Operating Officer, Wastewater Operating Services.



Pump Station Media Tour

Pump Station Tours Illustrate GLWA’s Commitment to Transparency

In the wake of the Summer’s unprecedented rain events, GLWA understood how important it would be to remain committed to its core value of transparency. In keeping with this commitment, the Authority conducted a series of tours of the Conners Creek and Freud Pump Stations for its member partners, as well as the media. Led by Interim CEO Suzanne Coffey and COO for Wastewater Operations Navid Mehram, the tours included an explanation of how flows come into the system, the process for each pump station coming online, what makes them different, as well as the history of the pump stations and planned improvements. Participants were taken through the pump motor floors of both pump stations, as well as the pump gallery of Conners Creek.

CAPITAL IMPROVEMENT PLAN

GLWA will invest more than \$1.7 billion in the region’s water and wastewater infrastructure through its Capital Improvement Plan (CIP) over the next five years, with an expected average annual investment of \$334 million.

CIP PLAN SPENDING SUMMARY/PROJECT TOTALS

169 Projects (planned or underway)	20 New Projects
5-Year Total: \$1.7 Billion	10-Year Total: \$3.4 Billion
5-Year Annual Average: \$334 Million	10-Year Annual Average: \$339 Million

The projects and programs included in the CIP aim to improve the regional system’s reliability, redundancy and operational efficiency, as well as protect health and safety.

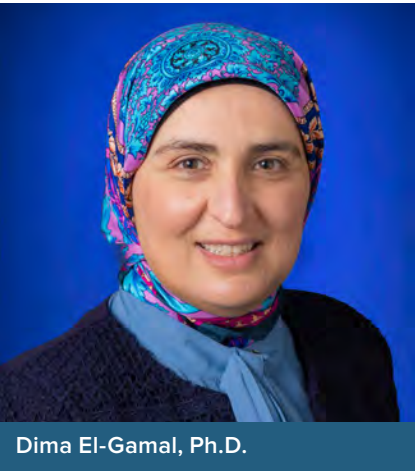
One important resiliency-focused CIP program is GLWA’s Linear System Integrity Program (LSIP). The goal of the LSIP is to proactively assess and renew the regional system’s more than 800 miles of water transmission mains and more than 200 miles of wastewater collection pipes. This program creates a specific framework for the ongoing inspection and assessment work that GLWA has been conducting since its creation in 2016 and will use that data to strategically target assets for renewal.

Capital Investments in Detroit Help Mitigate Flood Risks

Of the 169 projects included in GLWA’s 2022–2027 CIP, there are a wide variety that, once completed, can help mitigate flood risks, including the following in the city of Detroit:

- ✓ Rehabilitation of the Detroit River Interceptor (DRI)
  - ✓ Condition assessment of all of GLWA’s combined sewer overflow facilities
  - ✓ Replacement of the Conners Creek Pump Station and upgrades to the Freud Pump Station
  - ✓ Adding a diversion connection to the Northwest Interceptor in order to direct flows to the Oakwood Combined Sewer Overflow Control Facility
- GLWA will use its observations from the June 2021 rain event and its impact on the Freud and Conners Creek Pump Stations to improve the proposed design for potential performance enhancements





Dima El-Gamal, Ph.D.

**Dynamic New Leadership for the CIP team**

GLWA was excited to welcome Dima El-Gamal, Ph.D., PE, LEED AP to the One Water team as the Director of Capital Improvement Planning in 2021. In this role, Dima is directly responsible for the development and execution of the Capital Improvement Plan (CIP), continuing progress of the CIP Program Management initiative, and for optimizing CIP planning efforts in conjunction with GLWA’s asset management initiatives.

Dima came to GLWA from Stantec, where she was Managing Principal of the firm’s Ann Arbor office. She is proud to have been appointed by Governor Gretchen Whitmer in 2021 to the State of Michigan’s Board of Professional Engineers.



Chris Nastally, PE

**GLWA Adds New Director of Engineering, Wastewater to Focus on Delivering Wastewater CIP Projects**

Chris Nastally, PE, was recently promoted to Director of Engineering, Wastewater, from CSO Control Program Manager. In his new role, Chris supports the CIP on the wastewater side, and will lead and support a team of 25 engineers and inspectors in the delivery of \$349 million in large Combined Sewer Overflow (CSO) and Water Resource Recovery Facility (WRRF) CIP projects over the next five years. A major focus in this role is standardizing the delivery of projects for wastewater while supporting and mentoring existing team members in Engineering.

**CSO LONG TERM CONTROL PLAN**

The Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP) project that was previously kicked off in December 2020 continued to progress on nearly every task in 2021. Progress includes an update of the Seven Mile, Puritan-Fenkell, and Baby Creek CSO basins in the Regional Wastewater Collection System (RWCS) hydraulic model, refinement of the overall model hydrology, installation of four flow monitoring sites to address data gaps, and completion of the water quality monitoring program of the Rouge River and several other CSOs for use in updating the watershed/water quality modeling effort.

The project team also completed several non-modeling related milestones, including the development of CSO design conditions and CSO control targets, an initial financial capability analysis, and an initial optimization of the existing collection system to identify areas that may offer potential control opportunities. In terms of outreach, the project team presented on project components in three meetings with the Michigan Department of Energy, Great Lakes, and the Environment (EGLE), six meetings with the Regional Collaboration Group and its modeling subgroup, two Wastewater Best Practices work group meetings, two Wastewater Analytics Task Force work group meetings, and two Watershed Hub work group meetings.



WASTEWATER AND WATER ASSET MANAGEMENT PLANS  
MOVE TOWARD COMPLETION

GLWA’s Wastewater Asset Management Plan (WwAMP) is a comprehensive look at all wastewater assets and their condition, risk, criticality, lifecycle costs, preventative maintenance and replacement strategies. It began over a year ago with the Authority’s consultant, Jacobs, and is nearing completion. Several primary focus areas of the WwAMP are:

- ◆ **Condition Assessment Program**  
High risk wastewater asset condition scores, photos and inspection reports
- ◆ **Preventive Maintenance Optimization**  
For process areas related to primary, secondary, incineration, dewatering, and common support
- ◆ **Failure Modes Effects Analysis**  
For several assets within primary, secondary and dewatering process areas
- ◆ **Lifecycle Modeling**  
To anticipate and plan for future funding needs

GLWA is also working to complete a Water Asset Management Plan (WAMP) for the assets in the water system. The process is following the same development model as the WwAMP and is planned to be completed in June 2022.

Similar to the WwAMP, the WAMP will provide GLWA with high risk asset condition assessments, preventative maintenance optimization, failure modes and effects analysis of several assets and lifecycle modeling to anticipate and plan for future funding needs.

One of the major tasks being undertaken during the WAMP is a visual condition assessment of GLWA assets. During several workshops, GLWA team members collaborated to rank facilities, process areas and asset types by criticality. A list of approximately 2,000 assets located at five booster pumping stations and all five water treatment plants was developed and scheduled for inspection.

Jacobs visited various GLWA water facilities to perform the visual condition assessments. GLWA operators assisted the assessors to provide access to assets, energizing assets whenever possible, and to provide valuable operational information.

WASTEWATER ASSET MANAGEMENT PLAN KEY STEPS





**SYSTEMS PLANNING & DEVELOPMENT DIRECTOR  
POSITION CREATED**

GLWA has added a new director-level position to focus on meeting the long-term water and wastewater planning needs of the Authority in close coordination with Operations, Engineering, Financial Services, as well as current and potential future member partners.

Timothy (Tim) Kuhns, formerly a manager for GLWA’s Water Engineering group, was appointed to this new position in late 2021. He is responsible for activities in master planning, water and wastewater modeling, and new customer development. He also supports the Member Outreach group in its collaboration with member partners and external stakeholders.



Tim Kuhns, PE

**EMERGENCY PREPAREDNESS KEY TO SUSTAINABILITY**

**GLWA Creates New Officer of Emergency Preparedness**

An essential part of GLWA’s resiliency efforts is ensuring the emergency preparedness of the Authority and its facilities. In support of this, GLWA created an Office of Emergency Preparedness within its Security and Integrity group to work with GLWA’s Operational areas, groups and teams to provide enhanced focus and preparation to address emergency situations, mitigate potential emergencies and threats, and assess the Authority’s overall vulnerabilities.

Walter Davis, who previously served GLWA as its Critical Infrastructure Manager, will lead the new office as Director of Emergency Preparedness. He is a certified Professional Emergency Manager and has decades of experience in emergency and disaster management.



Walter Davis



Energy Program Manager Eric Griffin proudly holding the 2021 Utility of the Future Today award flag.

**Fourth Straight Utility of the Future Today Recognition;  
GLWA One of Five Utilities Recognized for at Least the  
Fourth Time**

For the fourth consecutive year, GLWA received national recognition as a Utility of the Future Today, which honors forward-thinking, innovative water utilities that are providing resilient, value-added service to communities.

This year, GLWA was recognized in a new area—Energy Efficiency—commending the Authority’s commitment to reduction of overall energy usage. The team was also recognized for fostering a collaborative workplace that inspires and embraces continuous improvement and learning through a high level of team members, community and stakeholder engagement.

This year, GLWA is one of just five utilities being recognized for at least the fourth time. The Authority has been recognized each year since 2018 for a new area of the Utility of the Future focus, including biosolids reuse, stakeholder engagement and education, and watershed stewardship.

The Utility of the Future Today recognition program is coordinated through a group of five national professional organizations, led by the National Association of Clean Water Agencies (NACWA).



# ONE TEAM

Collaboration with Member Partners, Team Members and Other Stakeholders



## Member Partner and Stakeholder Collaboration

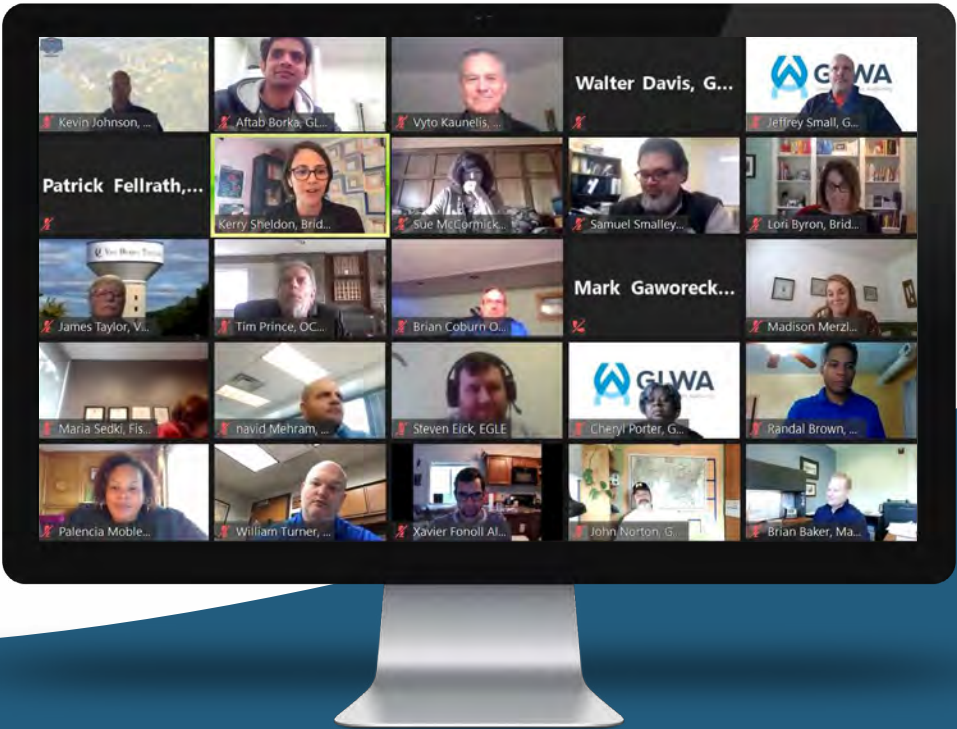
“ Individually we are one drop; but together we are an ocean.”

– RYUNOSUKE SATORO

GLWA continued to embrace its collaborative philosophy, which is core to all aspects of the regional system’s operations, especially in its relationship with its member partners and other stakeholders. Engagement through our One Water Partnership is key to the success of this philosophy.

In 2021, Member Outreach convened a total of **93 meetings**, which included **53 work group meetings** and **40 other outreach activities**, such as Watershed Hub webinars, wastewater model contract meetings and meetings related to the Water Quality team’s surface water protection program (SWIPP).

A positive outcome of transitioning all Member Outreach meetings to a virtual format to keep everyone safe during the COVID-19 pandemic is that member partner representatives have been able to attend a broader cross-section of meetings due to the lack of travel time required. As the Authority prepares for post-pandemic operations, the GLWA team is committed to offering virtual options for Member Outreach meetings in order to continue to encourage this increased participation.





GLWA DEVELOPS INNOVATIVE PROGRAM TO PROVIDE FREE ACCESS TO AWWA MEMBERSHIPS FOR MEMBER PARTNERS AND TEAM MEMBERS

Thanks to a collaboration between the Authority and the American Water Works Association (AWWA), starting in 2021 all of GLWA’s member partners and their team members, as well as the Authority’s team members, are eligible for AWWA memberships. The two-year Regional Rate Structure pilot program leverages the Authority as a hub utility to pay the annual dues. In return, team members and member partners receive access to AWWA’s knowledge, standards, resources and opportunities, which help strengthen regional collaboration while allowing water professionals to excel at their jobs. Currently, all member partners have utility memberships, and over 500 individual memberships are associated to the pilot program.

GLWA HONORS TIM PRINCE WITH COLLABORATION AWARD

GLWA was proud to honor Tim Prince, PE, the former Chief Manager for the Oakland County Water Resources Commissioner (OCWRC) as the 2021 recipient of its True Partnership Award.



As a representative of the OCWRC, Prince has been active in GLWA’s Member Outreach Program for many years, with his collaborative leadership resulting in several breakthrough moments during important initiatives. Notably, he worked with the Authority and the Detroit Water and Sewerage Department (DSWD), on behalf of the Evergreen-Farmington Sanitary Drain Drainage District (EFSD), to orchestrate a set of projects that will prevent an estimated 48 million gallons of wet weather flow per year from making its way into the Rouge River untreated. His ability to keep colleagues focused on big picture outcomes—such as a regional approach to protecting public health and environmental quality—was pivotal in generating not only agreement but also enthusiasm for the path forward.

The region and GLWA system are so fortunate to have had his leadership for so many years!

GLWA’S RESPONSIVENESS AND COMMUNICATION CITED AS TOP FACTORS CONTRIBUTING TO 90 PERCENT MEMBER SATISFACTION RATING

Throughout GLWA’s history, the collaborative relationship the Authority shares with its members makes up the bedrock of its operating philosophy. One of the tools GLWA uses to measure how well the organization is fulfilling its shared One Water mission is the annual One Water Partnership Scorecard survey.

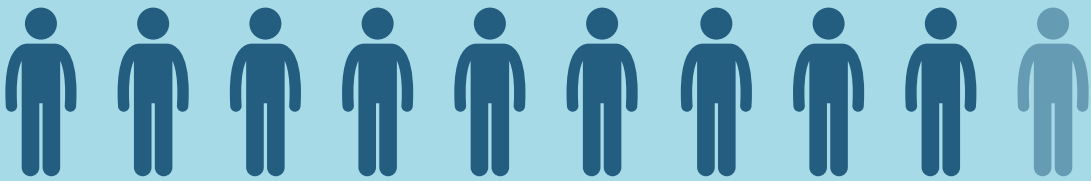
The Scorecard survey solicits anonymous quantitative and qualitative customer feedback on the Authority’s performance as an organization. The evaluation tool measures members’ satisfaction with topics such as GLWA’s responsiveness, knowledge and effectiveness; leadership in regional collaboration; emergency and non-emergency communication; and operational and administrative service areas.

The implementation of the Scorecard survey, with consistent questions and scoring since 2018, provides the ability to compare survey results year over year. **Over the past four years, all Scorecard survey question categories received a weighted average of 3.0 (“Agree” or “Satisfied”) or greater out of a possible 4.0.** While a number of topics have received consistently high scores since the Scorecard’s inception, two in particular stand out: an average of 95 percent of respondents have rated Member Outreach communications and GLWA team member knowledgeability positively over a four-year period.

When asked to rate satisfaction with the Authority overall in 2021—a particularly challenging year involving unprecedented wet weather events and a leadership transition—90 percent of respondents rated the organization positively, selecting either “Satisfied” or “Very Satisfied.”

**Prompted to share the one factor that influenced their response, respondents mentioned GLWA’s responsiveness and communication most frequently.**

2021 GLWA SATISFACTION RATE



**90%** respondents rated the organization positively, selecting either “**Satisfied**” or “**Very Satisfied**.”



# WRAP Continues to Evolve to Increase Impact on Household Sustainability

As it has since the program was launched in 2016, GLWA’s Board of Directors urged the Authority to continue to evolve the Water Residential Assistance Program (WRAP), its two-year program that provides funding to eligible, low-income households to assist with water bills, water conservation and self-sufficiency initiatives.

Building on the success of the first-of-its-kind program and one of the few sustainable assistance programs in the country, WRAP remains rooted in its overarching mission to reduce the overall water usage in a home through repairs and conservation measures. Program goals are to educate the homeowner on responsible water usage, provide conservation measures in the home to reduce water consumption, and repair leaking and/or nonfunctioning plumbing and other water fixtures to create a safe, livable home. **The ultimate goal of WRAP is to set participants up for long-lasting sustainability for their households.**

Identified key areas for change to maximize WRAP’s impact include:



### INCREASED ACCESS TO WRAP

Any household within GLWA’s service area may now enroll in WRAP’s conservation assistance regardless of whether their community participates in WRAP. Prior to this year’s changes, a household’s community was required to have opted in to WRAP for them to be eligible for conservation assistance.



### EMPHASIS ON CREATING A HEALTHY HOME

WRAP provides participating households with additional water conservation education and repairs to ensure reliable faucets in kitchens and bathrooms throughout the home. Board-approved changes in 2021 allow community action agencies to use special allowances for an additional \$1,000 in certain plumbing repair circumstances, and removes the high-water user eligibility requirement for conservation and minor plumbing repair services.



### INCREASED FUNDING TO HOUSEHOLDS

Participants can now access up to \$3,500 in their first year of WRAP, with an additional \$1,500 in their second year, receiving \$1,200 for back payment and \$300 in monthly bill assistance.



### ACCOUNTABLE AND SUSTAINABLE OUTCOMES

With the recent changes in place, GLWA hopes to have 92 percent of all households leave the program with no remaining back balances or arrearages.

“We are proud of WRAP’s success to date and are grateful for the services provided by the community action agency partners. We’re committed to expanding outreach and improving program design to make sure that WRAP eligible clients can access every available dollar to ensure a sustainable future.”

– **MADISON MERZLYAKOV**  
Affordability & Assistance Manager, GLWA

The Authority works with a network of action agency partners including the Oakland Livingston Human Service Agency (OLHSA), Macomb Community Action Agency (MCA), and Genesee County Community Action Resource Department (GCCARD), in addition to the founding-service delivery partner Wayne Metropolitan Community Action Agency (Wayne Metro).

Since 2016, the program has been continuously reviewed and numerous adjustments have been made to ensure adaptability and flexibility to address ways to make the program best meet the needs of member partner communities and consumers, including:

- COVID-19 payment exceptions to assist those financially impacted in 2020.
- Replacement of kitchen and bathroom faucets predating the 1986 lead-free plumbing code change in 2018.
- Year-over-year reallocation of funding to cities of Detroit and Flint for bill payment and conservation.

From March 2016 through December 2021, \$19.92 million in total funding has been committed to communities throughout southeast Michigan through WRAP. More than 23,300 households across GLWA’s service area enrolled in WRAP, including more than 14,500 Detroit participants. Through December 2021, almost 4,100 homes have received a home water audit. On average, participating households have received more than \$850 of assistance from the WRAP program.


WRAP funding for GLWA’s upcoming 2022-2023 Fiscal Year is \$6.2 million.



**Affordability & Assistance Program Manager Position Created**  
To support WRAP improvements and effectiveness, as well as other key GLWA strategic policies and programs, the Authority added a new Affordability & Assistance Program Manager position. Madison Merzlyakov was appointed to serve as an internal and external resource for initiatives and partnerships related to affordability and assistance, including managing WRAP delivery and effectiveness. Madison previously served as a Management Professional in the Planning Services group, where she was an instrumental part of the Member Outreach Program.

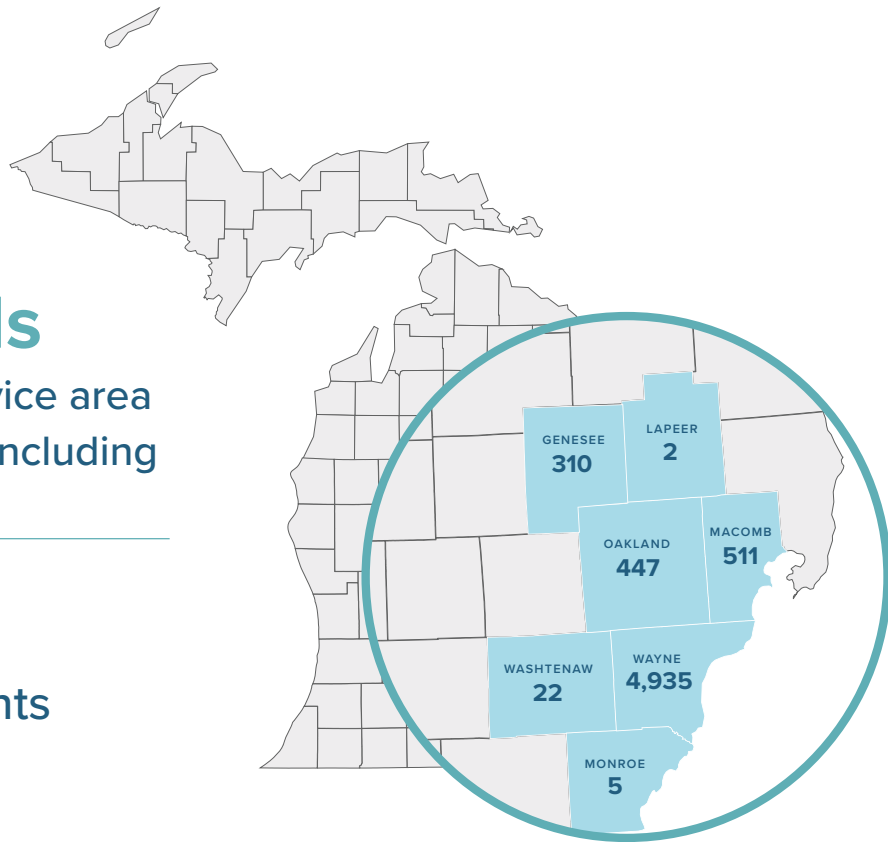


# WRAP by the Numbers

 **\$19.92 million** in total funding has been committed to communities throughout southeast Michigan through WRAP.

**23,300+**  
**households**  
across GLWA's service area  
enrolled in WRAP, including

**14,500+**  
Detroit participants



## CONSERVATION NUMBERS UPDATE

  
**1,410**  
homes with high usage  
received a home water  
audit in 2021

  
**\$500,000**  
funding spent on plumbing  
repairs in 2021

  
**\$850**  
average assistance participating  
households received from the  
WRAP program

## “ QUOTES FROM COMMUNITY ACTION AGENCIES

“We have found that community members have really benefited from the increased WRAP programming support, which assists them in obtaining economic stability. For instance, the higher arrearage support allows people to have less of a financial struggle and reduces their overall stress levels related to outstanding water utility debt. OLHSA is proud of this partnership with GLWA and the assistance it provides to local residents.”

– SUSAN HARDING  
CEO, OLHSA

“Amid a variety of public service programs, WRAP fills a unique and much-needed niche. WRAP is an innovative program that helps Macomb County residents with bill assistance, water conservation and plumbing repairs. The WRAP program from GLWA helps vulnerable residents across the region ensure that they have access to water services within their budget.”

– MACOMB COMMUNITY ACTION

“Through WRAP, we continue to forge new pathways that combine payment support with consumer education and home water conservation to empower residents. Once we wipe out the back payments and the home is efficient, the bill becomes affordable so families can get back on track and take charge of their finances which means on-time payment. The short-term win is financial stability. The longer term and more exciting win is an investment in future economic mobility of our community.”

– MIA HARNOS  
Chief Operating Officer, Wayne Metro

## “ PERSONAL STORY FROM WRAP PARTICIPANTS

“It was a true blessing that I learned about the WRAP program in 2015 when it first rolled out. I was excited to learn how this new program could help me, and as soon as open enrollment became available, I was informed that I was eligible for assistance. I was enrolled in WRAP’s very first 12-month program. It seemed like I could finally see light at the end of the tunnel because I was going to receive much-needed help. I was able to save \$50 each month on my water bill.”

– WAYNE METRO CLIENT & DETROIT RESIDENT

“I appreciate the Agency for taking care of the things that I simply could not handle, plus, I didn’t have the money to pay for the work that needed to be done. I no longer worry about what type of problem I will find once I go into the basement. I can now go into my bathroom and flush the toilet. Also, I can take a bath or shower with hot water. I love that I can wash my dishes without having to boil water. You can’t imagine how much of a strain it can be trying to function without water. Before receiving help from Wayne Metro, I felt like a train was on my back, and now the train has moved onto another station. The Agency helped me to pay down my \$3,000 water bill, and instead of my monthly bill being \$140 and higher, it is now only \$46 per month or lower, which is very affordable.”

– WAYNE METRO CLIENT & DETROIT RESIDENT



Cross Agency and Infrastructure Collaboration Leverages Resources to Improve Water and Road Infrastructure

As part of the Authority’s efforts to ensure the high level of service its member partner communities deserve, and ensure resiliency in the regional system, GLWA is installing a new 96-inch-diameter water transmission main along a new route and decommissioning approximately 2.5 miles of existing water transmission main to improve access for future operations and maintenance. The project will not only relocate the current water main from outside businesses and residents’ backyards, but will also improve access for operation and maintenance in the future.

GLWA is proud of its efforts to collaborate with the Road Commission for Oakland County (RCOC), Macomb County, the city of Rochester Hills and other many project stakeholders over the last several years during the planning and design phases of this important water infrastructure project.

The coordinated projects will be constructed over two consecutive years, beginning Nov. 1, 2021, and will involve several roadway improvements to the Avon/Dequindre and 23 Mile/Dequindre corridor on the Rochester Hills/Shelby Township border, including a bridge removal/replacement, construction of two roundabouts, road widening, pedestrian safety enhancements and a portion of a new water transmission main.

The infrastructure improvements will be completed in two phases, with completion expected in 2023. Following completion of the Avon Road improvements, future phases of the GLWA 96-inch water main project will be constructed over several years outside of the Avon Road project area.

“The coordination of our project along with those others being talked about here this morning represents the kind of cross-agency collaboration envisioned five years ago and is, I believe, a shining example of the spirit of regional collaboration on which we were founded. Working hand-in-hand with our partners on projects such as this can help us all not only maximize the investment of public dollars being spent by all of us, it can also help minimize any disruptions that can impact those who live in the surrounding communities.”

— **CHERYL PORTER**  
Chief Operating Officer, Water & Field Services, GLWA



GLWA COO, Water & Field Services, Cheryl Porter, RCOC Board Chair Andrea LaLonde, Oakland County Executive David Coulter, Macomb County Executive Mark Hackel and Rochester Hills Mayor Bryan Barnett held a news conference on Oct. 20, 2021, to announce the infrastructure collaboration.

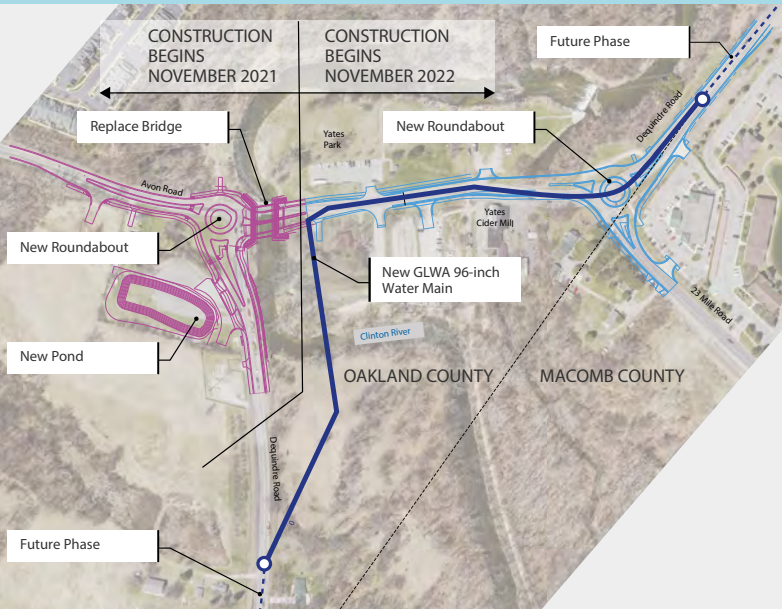
GLWA Proposed 96-inch Water Transmission Main Relocation

- Existing 96-Inch WTM
- Relocated 96-Inch WTM



Avon Road Infrastructure Improvements

- RCOC Roadway Improvements
- RCOC/GLWA Roadway Improvements
- GLWA 96-inch Water Main





Strong Partnerships Result in Strong Emergency Response at the Fort and Dearborn Streets Ground Shift—City of Detroit, DTE and GLWA

When the ground mysteriously began shifting at Fort and Dearborn Streets in southwest Detroit in September, GLWA, DTE and the city of Detroit immediately responded, uniting in a multi-agency effort to coordinate a solution that would maintain public safety for the residents and businesses in the area around the heaving pavement, as well as discover its cause.

When the ground shifted, it created a buckling of nearby Dearborn Street and caused the collapse of a building housing a local business, as well as displaced a variety of utility lines. The Authority was impacted first by a break to a 16-inch water main, which the Field Services team was able to isolate very quickly. Then the Authority was informed by DTE Energy that it needed to shut down a 24-inch high-pressure gas main that feeds the Water Resource Recovery Facility (WRRF) and the Biosolids Dryer Facility, causing both to stop processing solids until the gas line could be bypassed and returned to service two days later. Final repairs to the main were implemented in early October.

The Authority was able to maintain its operations throughout the event thanks to the hard work of many team members, specifically those from wastewater operations, field services and procurement. The teamwork exhibited was remarkable and is a good example of GLWA’s collaboration and resiliency.



ICEO Suzanne Coffey (2nd from left) participating in a media update with the City of Detroit and DTE Energy at the site of the ground heave.



Our team members’ response to this difficult situation, in collaboration with the city of Detroit, DTE Energy and many other stakeholders, was nothing short of spectacular. Their tireless efforts ensured that we had everything in place to remain in compliance with our NPDES permit, including identifying trucking companies available to haul our solids inventory, as well as landfills available to receive them.”

– NAVID MEHRAM  
Chief Operating Officer, Wastewater Operations, GLWA



**GLWA Collaborates with Member Partners to Turn Water Main Break into Proactive Opportunity to Improve Resiliency**

In October, a major water main break in Oakland County offered GLWA the opportunity to continue building resiliency in the regional system by proactively renewing segments within a 1.5-mile stretch of water transmission main along 14 Mile Road in Oakland County, adding as much as 50 years to its service life.

On October 31, a break occurred in a 20-foot section of GLWA's 48-inch transmission main that runs along 14 Mile Road near Drake Road in Farmington Hills. Immediately after isolating the break and dewatering the pipe, the Authority took the initiative to proactively conduct an extensive physical inspection of the out-of-service segment of pipe. The inspection identified 18 sections of at-risk pipe within the 1.5 miles that required strengthening, including one section that was in an advanced state of deterioration.

After extensive discussion with GLWA's member partner communities directly impacted by the break, it was determined that the most prudent course of action to protect public health and safety was to extend the timeline for the repair of the original break to include the renewal work identified in the inspection. GLWA also installed two new valves along the 1.5-mile segment of pipe, which provide the Authority with additional operational flexibility to help maintain levels of service to member partner communities serviced by this transmission main.

The renewal work was done with an innovative pipe strengthening technology called V-Wrap, which involves the installation of thin layers of carbon fiber impregnated with an epoxy resin, essentially creating a pipe within a pipe with the repair. The carbon fibers are woven to form a fabric which is impregnated with epoxy. Once it cures, the structure becomes very strong and the original pipe is no longer needed to resist the water pressure in the pipe and other loading.

Simultaneously, as part of GLWA's Capital Improvement Plan, the Authority has a seven-mile-long north-south pipeline loop under construction that is expected to be completed in February 2024. The 14 Mile Road Transmission Main Loop will drastically improve redundancy and includes a reinforcement pipeline parallel to the existing 14 Mile Road Transmission Main between the Haggerty Pump Station and Decker Road. This pipeline can serve the area while the existing transmission main is being repaired. When it is repaired, there will be two fully functional services along 14 Mile Road.

Combining many of its priorities—collaboration, asset management and creating a resilient system—the Authority is proud of how it worked with the impacted member partner communities to develop this improvement plan that provides a reliable, long-term path forward.

“ Ensuring resiliency in the regional system is one of GLWA's top priorities. Taking a proactive approach to asset renewal, wherever possible, is always our goal. However, we understand we must balance this with our commitment to maintaining a high level of service to our member partners. The repair and renewal work done here is the perfect example of this balance. I am thankful for the outstanding collaboration we have had with our member partners, stakeholders and fellow utilities, and appreciate the patience of those residents who have been inconvenienced due to the continuing work. I am especially grateful to our member partners from the city of Farmington Hills, West Bloomfield Township, and the Oakland County Water Resources Commissioners Office for their collaboration and commitment to doing whatever it takes, alongside GLWA, to keep the water flowing for everyone. A particular shout out to West Bloomfield Township for their willingness to open emergency valves, which was pivotal in maintaining service to communities west of the break.”

— **SUZANNE COFFEY**  
Interim CEO, GLWA

“ The work being done at the water main break in Farmington Hills is a testament to regional collaboration at its finest. The efforts put forth by all parties involved demonstrate how important it is to work together on solutions that continuously rehabilitate and improve the water infrastructure throughout Oakland County and southeast Michigan. Being proactive and identifying areas of opportunity like this is a critical first step.”

— **JIM NASH**  
Oakland County Water Resources Commissioner

“ A water main break is never an ideal situation and a break of this magnitude is especially challenging. However, I appreciate the transparency in sharing information in real-time, and the fact that GLWA sought input from its member partners every step along the way. It is important to know that our concerns and challenges are not only heard, but truly considered. The Authority's response to this situation is an excellent example of its commitment to shared decision making.”

— **KAREN MONDORA**  
Director of Public Services for the city of Farmington Hills

14 Mile Main Break





# One Water One Team

## New Water Technician Apprenticeship is Fourth Program Launched by GLWA

In continued collaboration with Focus: HOPE, GLWA launched a new three-year apprenticeship program to train and hire water technicians. The Water Technician apprenticeship is the fourth created by the Authority.

Approved by the U.S. Department of Labor (USDOL), GLWA’s apprenticeship program successfully demonstrates a learn-while-you-earn model with on-the-job training and education at no cost to the participants. In a continued effort to provide employment opportunities to those across the communities it serves, GLWA selected Macomb Community College as its educational partner for the Water Technician apprenticeship.

The new program is designed for 25 Water Technician apprentices to support GLWA’s five water treatment facilities located in and around Detroit, including a small group that will be located at the Authority’s Lake Huron water treatment facility.

Water Technician apprentices will have the opportunity to work one-on-one with GLWA journeyworker mentors, as well as attend customized courses at Macomb Community College. Upon successful completion of the apprenticeship program, individuals will have fulfilled the requirements set forth in the USDOL Standards of Apprenticeship, including 6,000 hours of on-the-job-learning and meeting all learning competencies. In addition, they will complete 608 hours of related educational instruction (33 course credits) at Macomb Community College. The apprentices will hold their USDOL Certificate of Completion of Apprenticeship and have the opportunity for full-time employment with GLWA.

In its first five years, the Authority successfully launched two apprenticeships in partnership with Focus: HOPE and Henry Ford College, and one with Focus: HOPE and Metro Detroit Electrical Industry Training Center. Two apprenticeships are currently underway: a four-year Maintenance Technician apprenticeship launched in January 2019, and a five-year Electrical Instrumentation Control Technician–Electrician (EICT-E) apprenticeship launched in February 2020.



According to the United States Environmental Protection Agency (EPA), the median age of water employees is 48 years old with 30 to 50 percent of these workers eligible to retire within the next five to 10 years across the industry. GLWA’s apprenticeship program aims to close the gap in the availability of highly trained talent to adequately fill skilled technician roles imperative to its core business of water and wastewater treatment. To date, GLWA is seeking to fill more than 50 vacant positions throughout the Authority and, as a result of retirement and natural attrition, that number is expected to triple over the next three years.

As part of the new apprenticeship launching, the team was interviewed and featured in a FOX 2 News segment highlighting the value of the apprenticeship program, its successful history and how to get involved. Chief Administrative and Compliance Officer Bill Wolfson, Organizational Development Manager Patricia Butler and recent apprentice graduate Electrical Instrumentation Control Technician–Instrumentation Bilal Bell-Muhammad all shared their perspectives and insights on the program.

Bilal shared his experience with the program and how it set him up for a successful career with the Authority. Overall, the story made it clear that a career with GLWA is one to take pride in and provides a real opportunity to make a difference in the community.



Action shot of Bilal Bell-Muhammad being interviewed by FOX 2 News



From left to right: Roop Raj, Bilal Bell-Muhammad, Bill Wolfson, Patricia Butler





“ It was an incredible opportunity to earn a living while you learn through an apprenticeship. Though I never had considered this industry before joining, now I can see a long-term path at GLWA. There’s so much opportunity for growth and my time as an apprentice set me up for a successful future.”

– YOLANDA PRESLEY  
SCADA Technician, GLWA

**From Pre-Apprenticeship to Full-Time Promotion: Yolanda Presley**

Before joining GLWA’s Electrical Instrumentation Control Technician—Instrumentation (EICT-I) apprenticeship program in 2017, Yolanda Presley did not realize the opportunities a career in the water industry could provide. Presley was introduced to GLWA through Focus: HOPE, an organization that offers workforce development programs to prepare individuals for successful careers. After taking part in an orientation for instrumentation technicians and touring GLWA’s facilities, she knew there was an opportunity to learn and succeed in a new field.

During her time as an EICT-I apprentice, Presley worked with journeyworker mentors and rotated assignments to gain experience across the Authority—all while attending customized courses at Henry Ford College. After three years of learn-while-you-earn training, Presley graduated as part of GLWA’s first apprenticeship cohort and was hired as a full-time instrumentation technician journeyworker.

After showing interest in the Supervisor Controls Data and Acquisition (SCADA) system within the Authority, the SCADA team provided an opportunity for Presley to learn more about their roles and encouraged her to become more involved. In December, Presley’s dedication paid off and she was promoted to a SCADA technician, where she takes on instrumentation at a higher level and has expanded responsibilities.

As a full-time team member, Presley continues her education at Henry Ford College, as she says the apprenticeship program encouraged her desire to keep learning. She is working toward her goal to become a network administrator with the Authority.



**National Apprenticeship Week Celebration**

GLWA celebrated National Apprenticeship Week with a virtual appreciation event on November 18, which began with remarks from GLWA’s ICEO, Suzanne Coffey, and speakers sharing the importance of the partnership between Focus: HOPE and GLWA and the positive impact apprenticeships have on the community they serve.

**Speakers included:**

U.S. Department of Labor Apprenticeship and Training Representative <b>Marc DeCoster</b>	Team Leader <b>Aaron Butler</b>
Apprentice graduate and Electrical Instrumentation Control Technicians—Instrumentation (EICT-I) <b>Bilal Bell-Muhammad</b>	<b>Adino May</b> and <b>Patricia Butler</b> from GLWA’s Organizational Development Apprenticeship Team
Electrical Instrumentation Control Technicians—Electrician (EICT-E) Journeyworker <b>Stephen Shuk</b>	Focus: HOPE Manager <b>Kevin Green</b>

Jason Hammond, Management Professional and Electrician Master of Record, was recognized for his unwavering support of the EICT-E apprenticeship program.

Bill Wolfson, Chief Administrative and Compliance Officer (CACO), closed the program by presenting current apprentices with GLWA swag, including winter beanies, and presenting apprentices and journeyworkers with job-specific stickers for their hard hats.

**GLWA to Lead Focus: HOPE Employer-Led Collaborative, Help Expand and Deepen Regional Talent Pipeline**

In November, Michigan Governor Gretchen Whitmer and the Michigan Department of Labor and Economic Opportunity (LEO) awarded a total of \$2.5 million in Michigan Industry Cluster Approach 3.0 (MICA 3.0) grants, \$250,000 of which was awarded to Focus: HOPE.

The awarded funding helped establish Focus: HOPE’s Employer-Led Collaborative (ELC), called the Industrial Training Employers’ Association of Michigan (ITEAM), that primarily supports southeast Michigan and integrates the talent pipeline system of framework to fill high-demand manufacturing services jobs with well-trained and skilled workers.

Focus: HOPE announced it will use the award, with the collaboration and support of GLWA and other employer partners, to train unemployed and incumbent workers, place workers in registered apprenticeships, and expand and deepen the regional talent pipeline to strengthen the manufacturing cluster. The Authority will lead the ELC, which will continue to provide sustained support for targeted industry sectors.



# MAKING BIG WAVES



**Michigan Lawyers Weekly:  
Up & Coming Lawyers:**  
Associate General Counsel Sarah Ahn



**National Association of  
Clean Water Agencies  
(NACWA) – National  
Environmental  
Achievement Awards:**  
Watershed Collaboration,  
Sherri Gee (left); Public  
Education Video, Curtis  
Burris-White (right)



**The Michigan Water Environment Association (MWEA) and Water Environment  
Federation (WEF) Awards:**  
WEF/MWEA Laboratory  
Analyst Excellence Award  
Andrea Busch, Ph.D.



MWEA IPP  
Professional,  
Stephen Kuplicki



MWEA PK Sarda Lab  
Professional,  
Sarah Watkins



**Crain's Detroit Business  
Notable Women in Law:**  
Associate General Counsel  
Lavonda Jackson



**American Water Works Association  
(AWWA) Vice Chair Public Council  
Appointment:**  
Chief Public Affairs Officer  
Michelle Zdrodowski



**National Association of Clean Water  
Agencies (NACWA) 2020 Silver Peak  
Performance Award:**  
Water Resources Recovery Facility



**American Water Works  
Association – Michigan Section  
(MI-AWWA) Professional  
Excellence – Individual:**  
Water Plant Manager  
Andraé Savage



**American Water Works  
Association – Michigan Section  
(MI-AWWA) Meritorious Service  
Award:**  
Operations and Maintenance  
Manager Jeffrey Dorsey



1



2



3



4



5



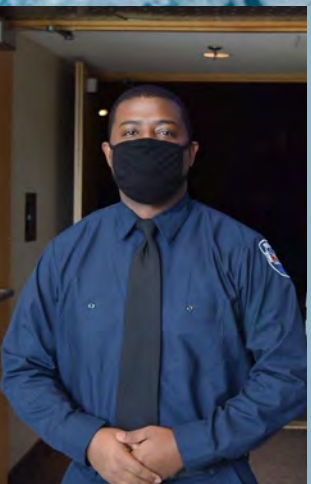
6

**Graduates of Michigan Public Service Institute:**  
1. Pawan Kapila, Ron Hayes 3. Reginald Bryant 5. Shannon Williams,  
2. Fred Collins 4. Michael Hayden Andraé Savage, Wajid Khan  
6. David Bradwell

\*Aaron Butler, not pictured, also graduated from MPSI in 2021



**Government Technology District Award Technology  
Innovation – Operations Category:**  
GLWA's IT Security Risk Reduction Program



**Security & Integrity  
HazMat Specialist  
Quinnton Boudreaux  
graduates from  
Macomb County  
Community College  
Fire Academy**



# ONE MISSION

Water of Unquestionable Quality;  
Effective and Efficient Services



## Water of Unquestionable Quality

The treatment of safe and reliable water is at the core of GLWA operations. Through its team of certified chemists, engineers, operators, and other highly skilled and qualified team members, the Authority is committed to supporting healthy communities by not only meeting but surpassing current state and federal safe drinking water regulations.

**GLWA has remained in compliance with all state and federal drinking water standards every day since it was established in 2016.**

### GLWA RECEIVES NATIONAL RECOGNITION FOR ITS WATER TREATMENT

*Water Works Park Among an Elite Group of Treatment Facilities to Receive the Presidents Award From the Partnership for Safe Water*

GLWA's Water Works Park Water Treatment Facility has received the rarely achieved Presidents Award from the Partnership for Safe Water (Partnership), a volunteer initiative developed by the Environmental Protection Agency (EPA), American Water Works Association (AWWA), and associated partner organizations representing water suppliers to guide water systems toward improving water quality by optimizing system operations and surpassing regulatory standards.

The national award recognizes water suppliers that represent a superior level of performance and has been developed by industry experts to showcase their commitment to delivering safe water to their community. The Presidents Award honors those treatment facilities that achieve very stringent individual filter performance goals for turbidity. **The Authority is one of only three water treatment facilities in the U.S. that achieved this level of performance in their facility processes in the Partnership's 2021 award year.**

In the past five years, four out of five of GLWA's drinking water treatment facilities—Lake Huron, Northeast, Southwest and Water Works Park—have also been recognized by the Partnership with its Directors Award.

The Presidents Award is achieved through the four-phased program comprised of commitment, baseline and annual data collection, self-assessment, and a fully optimized system and recognizes the treatment facilities that achieve the Partnership's rigorous individual filter effluent turbidity standards and are working to full optimization.



Water Operations Special Projects Manager Balvinder Sehgal (top)  
Water Park Plant Manager Andraé Savage (bottom)

“Receiving the Presidents Award in GLWA's fifth year of operations is a significant milestone and testament to our team's ongoing commitment to providing water of unquestionable quality to the people of southeast Michigan. This award is a tangible example of the Authority's dedication to maintaining high standards for water quality and exceptional operations. I commend the hard work and dedication of the Water Works Park team for achieving this honor, especially while operating under the COVID-19 pandemic.”

— **CHERYL PORTER**

Chief Operating Officer, Water & Field Services, GLWA



# Monitoring for Emerging Contaminants

## PFAS—WATER SYSTEM

The Authority takes its responsibility to public health and safety seriously. GLWA has been monitoring per- and polyfluoroalkyl substances (PFAS) since 2009, and the water it distributes to its member partner communities remains water of unquestionable quality.

In the latest round of drinking water system testing required under the Michigan Department of Environment, Great Lakes and Energy’s (EGLE) rule, GLWA is pleased to assure the public these chemicals were not detected in its drinking water. This means PFAS levels were below that which is measurable under the EPA’s standard analytical methodology for the detection of compounds.

In a time of continued public concern, the Authority can confidently assure its member partners, as well as the entire region, that its water remains of unquestionable quality.

## PFAS—WASTEWATER SYSTEM

GLWA is a leading utility in the state of Michigan, as well as the United States, in monitoring for PFAS in the waste stream. As a part of its Industrial Pretreatment Program (IPP) responsibilities, the Authority has taken a proactive approach to working with its point source industrial dischargers to remove PFAS in advance of it entering the wastewater system.

The last 12 months were GLWA’s second full year for implementing its PFOS/PFOA Minimization Program, which was one of the first in the state of Michigan and in the United States.

In the last year, the Authority has continued to observe measurable progress in reducing, controlling and eliminating source contributions of PFAS compounds throughout its regional service area. During 2021, the average PFOS concentration in the waste stream was **10.1 ppt, which is down 42 percent from the 2020, and the average 2021 PFOA concentration was 6.95 ppt, which is down 12 percent from 2020.**

During 2021, PFOS loadings from known sources declined by 20 percent.

### PFAS FACTS

**WHAT IS PFAS?**  
Per- and polyfluoroalkyl substances (PFAS) are man-made compounds used in manufacturing carpet, clothing, furniture fabrics and paper food packaging. They are used to make items water- and stain-resistant. PFAS is also found in products such as firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS is known as a “forever chemical” because it does not break down in the environment.



**GREAT LAKES WATER AUTHORITY**  
The Great Lakes Water Authority (GLWA) has been testing for PFAS since 2009 and is pleased to assure the public that these chemicals were not detected.  
Test results from GLWA’s five water treatment plants are online at GLWA’s website, [glwater.org](https://glwater.org). Search the term “PFAS.”  
**2021 Results**   **2020 Results**   **2019 Results**   **2018 Results**  
GLWA takes its responsibility to public health and safety seriously and can confirm that its water remains of unquestionable quality.

**STATEWIDE TESTING**  
In 2018, the Michigan Department of Environment, Great Lakes and Energy (EGLE) began testing drinking water from all community water supplies for PFAS.  
Test results are available at the State’s website: <https://www.michigan.gov/pfasresponse/>

**RESOURCES**  
For more information on PFAS in Michigan, visit the State’s website. There you’ll find Fact Sheets, FAQs, and testing results, as well as an independent PFAS Science Advisory Report, developed by nationally recognized experts.  
<https://www.michigan.gov/pfasresponse/>



Throughout 2021, GLWA evaluated 76 industrial dischargers, identified 48 of these as PFAS sources, reclassified or removed three sources and identified two new sources. The PFOS/PFOA Minimization Program encourages a source control approach through the development and implementation of a Best Management Plan (BMP). As of December, the program has achieved the following:

- BMPs were developed and implemented by 98 percent of the identified facilities;
- Users installed specific treatment for PFAS compounds at 38 percent of sources.

The Authority will continue to work with industrial discharges to monitor, reduce, control and eliminate source contribution of PFOS/PFOA to the waste stream.

Team members are also sharing their knowledge and learnings with the wastewater sector by presenting at local, regional and national conferences.

### PFAS FACTS

**MICHIGAN’S DRINKING WATER STANDARDS**  
The Michigan Department of Environment, Great Lakes and Energy’s (EGLE) PFAS rule, which went into effect in August 2020, includes drinking water standards that establish maximum contaminant levels (MCL) for seven types of PFAS.

**PFAS DRINKING WATER RULE - QUICK REFERENCE GUIDE**

CONTAMINANT	MCL (ng/L)*
Perfluorononanoic acid (PFNA)	6
Perfluorooctanoic Acid (PFOA)	8
Perfluorooctane Sulfonic Acid (PFOS)	16
Perfluorohexane Sulfonic Acid (PFHxS)	51
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	370
Perfluorobutane Sulfonic Acid (PFBS)	420
Perfluorohexanoic Acid (PFHxA)	400,000

\* ng/L = nanogram/liter

**HEALTH EFFECTS**  
Scientists are still learning about the health effects of exposures to mixtures of PFAS compounds. Although more research is needed, some studies in people have shown that certain PFAS *may*:  
• affect growth, learning, and behavior of infants and older children  
• lower a woman’s chance of getting pregnant  
• interfere with the body’s natural hormones  
• increase cholesterol levels  
• affect the immune system  
• increase the risk of cancer  
If you have medical questions, talk with your doctor.



## Wastewater Operations Team Meets and Surpasses Phosphorus Reduction Goals

The Wastewater Operations team once again successfully met and surpassed the federal and state goal of a 40 percent reduction in phosphorus. GLWA’s final 2020–2021 total phosphorus in its effluent was 415.96 tons, which is well below the regulatory goal of 469.8 tons.

The Authority has not only met the federal and state requirements, but it has been able to reduce its phosphorus levels by approximately 60 percent in treated and discharged waters from its Water Resource Recovery Facility (WRRF). It is the first treatment facility along the tributary to Lake Erie to achieve this milestone.

This is an incredible accomplishment that continues to demonstrate GLWA’s commitment to environmental stewardship.



PROACTIVE CORROSION CONTROL OPTIMIZATION STUDY PROGRESSES

The Authority has been feeding phosphate into water in its drinking water transmission system in order to control both corrosion and its effects on water quality since 1996. Since that time, optimal corrosion control has consistently been maintained at each of GLWA’s five water treatment facilities and monitored each quarter by sampling and reporting to EGLE.



As part of its process of continual improvement, GLWA began a study in 2020 to verify or optimize the Authority’s current corrosion control practices. The study is a proactive measure to guarantee that the Authority is prepared for changes in federal and state regulations concerning lead and copper.



Corrosion Control Pipe Rigs, above and below

As a part of the optimization study, which GLWA has partnered on with Arcadis, pipe loop testing rigs have been constructed and installed at 10 testing sites—one at each of the five GLWA water treatment plants and five other locations within its member partner’s local distribution systems. Each member partner site represents a single water treatment facility’s water distribution service area.

For the past two summers, GLWA has partnered with several of its member partner communities to harvest sections of existing service lines that contain lead during the municipality’s scheduled service line replacement programs. This is important because using lead pipes on the pipe loop testing rigs that have been harvested from the actual distribution system allows the Authority to see how the pipe scale developed since corrosion control was first implemented in the 1990s.

Now that harvesting and installation of the lead service line sections into the 10 pipe loop testing rigs is complete, the Authority will run water through them for approximately six months to ensure that they are conditioned and returned to the same baseline following their disturbance. Information from the testing will inform GLWA about the water quality as it travels from its water treatment plants, through the transmission and distribution systems and into homes and businesses throughout the area. The official testing period of different corrosion control scenarios is expected to begin in the fall of 2022, with a final report, including optimization recommendations, anticipated by the end of 2023.



Innovation

WATER AND FIELD SERVICES TEAM LAUNCHES WATER QUALITY MONITOR BUOY IN DETROIT RIVER

In partnership with LimnoTech and the University of Windsor, the Water and Field Services team in September deployed the first buoy to the Detroit River to enhance water quality monitoring of its source water. The buoy, equipped with a camera that provides 20-second clips every 10 minutes, will provide data ahead of GLWA’s Southwest intake (where GLWA pulls water from to send to its Southwest Water Treatment Facility) and can serve as an early warning for changing water quality.



Water Quality Monitor Buoy

While there is currently not a cause for concern about algae blooms in the Detroit River, the Authority is proactively monitoring to help gather data for the long-term evaluation and optimization of its water treatment. GLWA’s proactive and real-time monitoring will keep drinking water uninterrupted and water treatment plants operating as usual. The project exemplifies the Authority’s regional collaboration and commitment to providing water of unquestionable quality. It also shows how the Authority’s innovative approach can use new technology to improve operational performance.

Deployed on the Canadian side of the Detroit River as a pilot, the buoy measures oxygen reduction potential, conductivity, temperature, pH levels, total algae, and more. It differentiates from other buoy projects, as they are typically installed to monitor areas already significantly impacted by algae blooms. If any changes should occur in the water quality, GLWA’s team is equipped to address them quickly; and at 1.6 miles before the water will reach the intake, there is enough time to address any potential issues. After the test pilot is completed, GLWA and its partners will be able to determine if there is a need to measure additional parameters and add more sensors.

“Our interest in GLWA’s buoy stems from our work with water utilities on the Canadian side of Lake St. Clair where we are monitoring algae blooms to help ensure the safety of drinking water,” said Mike McKay, Executive Director and Professor, Great Lakes Institute for Environmental Research (GLIER), University of Windsor. “While algae blooms in the Detroit River are not currently a concern, the proactive steps being taken will provide GLWA with increased monitoring for preparedness.”

The vessel was provided by the Real-Time Aquatic Ecosystem Observation Network (RAEON), a University of Windsor research collaborative funded by the government of Canada and deployed by LimnoTech. RAEON staff involved in the effort include Todd Leadly and Katelynn Johnson; LimnoTech staff include Ed Verhamme; and GLWA staff include Andrea Busch, Mary-Lynn Semegen, Terry Daniel, Patrick Williford, Ronald Hayes, Andraé Savage, Pawan Kapila, Yao Kouassi and Balvinder Sehgal.

“ The data is critical for monitoring and assessing source water quality and to help us collect baseline and seasonal data which can detect if any diversion or unusual peaks occur. In addition, data will be used for long-term evaluation and optimization of GLWA’s water treatment system to ensure we continuously provide the highest quality water.”

— ANDREA BUSCH, Ph.D.  
Management Professional of Energy, Research and Innovation, GLWA



GLWA LAUNCHES SATELLITE LEAK DETECTION TECHNOLOGY TRIAL AND PILOT TO DETECT DRINKING WATER LEAKS

In July, the Energy, Research and Innovation team began a Satellite Leak Detection technology trial/pilot with 30 of GLWA’s member partner communities. The project will evaluate the use of satellite-based radar technology to detect drinking water leaks in the water transmission/distributions systems.

The technology is very similar to satellite technology that has been used to discover pockets of water on the moon and on Mars. As the satellite passes overhead, the radar detects the presence of chlorinated water on or near the ground. By overlaying the detected areas on a system water distribution map, the locations of interest can be identified for subsequent investigation.

UNIVERSITY PARTNERSHIPS

*Partnering with University of Michigan to Test Smart Control of Wastewater Systems*

As a continuation of GLWA’s commitment to innovation and forward-thinking opportunities, the Authority partnered with the University of Michigan (U-M) to test the smart control of wastewater systems.

Even when there is an abundance of rain, there are parts of a combined stormwater and sanitary sewer system that are not full. However, it is not always easy to detect if storage capacity is available and where the storage exists for maximum efficiency.

“ These systems are essentially self-operating. The partnership with U-M allowed further insight into these types of technologies, and a system with various integrated sensors that is controlled by artificial intelligence could be in place as soon as two or three years from now. This will allow systems to work more efficiently, quickly and affordably.”

– JOHN NORTON, Ph.D.  
Director of Energy, Research & Innovation, GLWA

*University Partners Collaborate with GLWA to Explore Biosolid Treatments, Effects of Chemical Pollutants in Water*

In October, a \$1.49 million biosolids research project was awarded by the EPA to a team consisting of GLWA, Michigan State University (MSU), the University of Georgia, Colorado State University, and Howard University. It is also supported by 15 other utilities across North America, Europe and Australia.

The project will investigate the impact of current biosolid treatment methods used by wastewater treatment facilities on a variety of pollutants in soil, water and plants. Developing quantitative models for human exposure is the goal of the new project, followed by communication of the information via MSU Extension and other outreach initiatives.

The project’s first step is for scientists to surveille current biosolid treatment processes for PFAS pharmaceuticals and personal care products (PPCP) concentration and leachability. Then, through field and laboratory experiments, they will look to fill knowledge gaps in the fate, transportation, occurrence and plant uptake of PFAS and PPCPs. This data collection will help in the development of models that quantify exposure risk to humans, which will be shared with communities and agencies responsible for biosolid treatment.

As part of GLWA’s sponsorship, it will fund a Howard University graduate student who will assist in the delivery of the project.

*GLWA to Serve as Founding Utility Partner for Michigan Center for Freshwater Innovation*

U-M approached the Authority in early 2021 with the idea to create a collaborative venture called the Michigan Center for Freshwater Innovation (MCFI), with the goal of leveraging broad research and education capacity to address freshwater grand challenges and accelerate the translation of innovation into practice. In turn, it plans to drive business growth and job creation.

Functioning as a collaboration between U-M, MSU and Wayne State University (WSU), the center will include key partners from the water technology value chain including other utilities, consulting firms, construction companies and technology partners, among others. Research will be shared collaboratively within the innovation center, with its partners, and with the general public, as appropriate.

As there continues to be high demand from water utilities for assistance with technology adoption and the potential remains for immediate and high impact, the Authority was identified to serve as the founding utility partner. Additionally, MCFI will work with other utilities throughout the state to build on the center’s mission.

MCFI elements include research and innovation, policy and economic forum, continuing education programs, community stakeholder engagement and outreach, and business incubation and startups. The center will help address Michigan’s water issues at scale and will create broader regional, national and international markets for Michigan businesses.



# WHAT'S NEXT FOR GLWA

“Individual commitment to a group effort — that is what makes a team work, a company work, a society work, a civilization work.”

– VINCE LOMBARDI

While much was accomplished in 2021, GLWA is looking squarely to the future and what can be achieved on behalf of member partners and the region. GLWA and its Board of Directors, being chaired in 2022 by Jaye Quadrozzi, are committed to:



Continuing to leverage GLWA resources to the benefit of member partners, and serving as a connector across the region and amongst its sector and infrastructure partners as a Hub Utility



Building climate change resiliency in the regional system in partnership with its member partner communities; seeking out all available funding opportunities



Delivering a comprehensive review of GLWA's water charge methodology, being done in conjunction with member partners, to assist in managing equity and volatility in charges for the regional water system



Continuing to improve the Water Residential Assistance Program's design and accessibility to households throughout the GLWA service region; leading and engaging in discussions regarding water affordability with partners throughout the state and nationwide



Ensuring that member partners' voices are heard in the discussion of issues critical to the water and wastewater sectors through GLWA's leadership in regional, state and national organizations and associations, as well as legislative outreach



Leading GLWA into a new era of technology with the launch in 2022 of a multi-year, enterprise-wide implementation program for three core systems: enterprise asset management (EAM), enterprise resource planning (ERP), and a capital project management information system (PMIS)



ABOUT GLWA

WATER SYSTEM

5        
Treatment Plants

  
3.8 MILLION  
PEOPLE SERVED

 816 miles of  
transmission main 

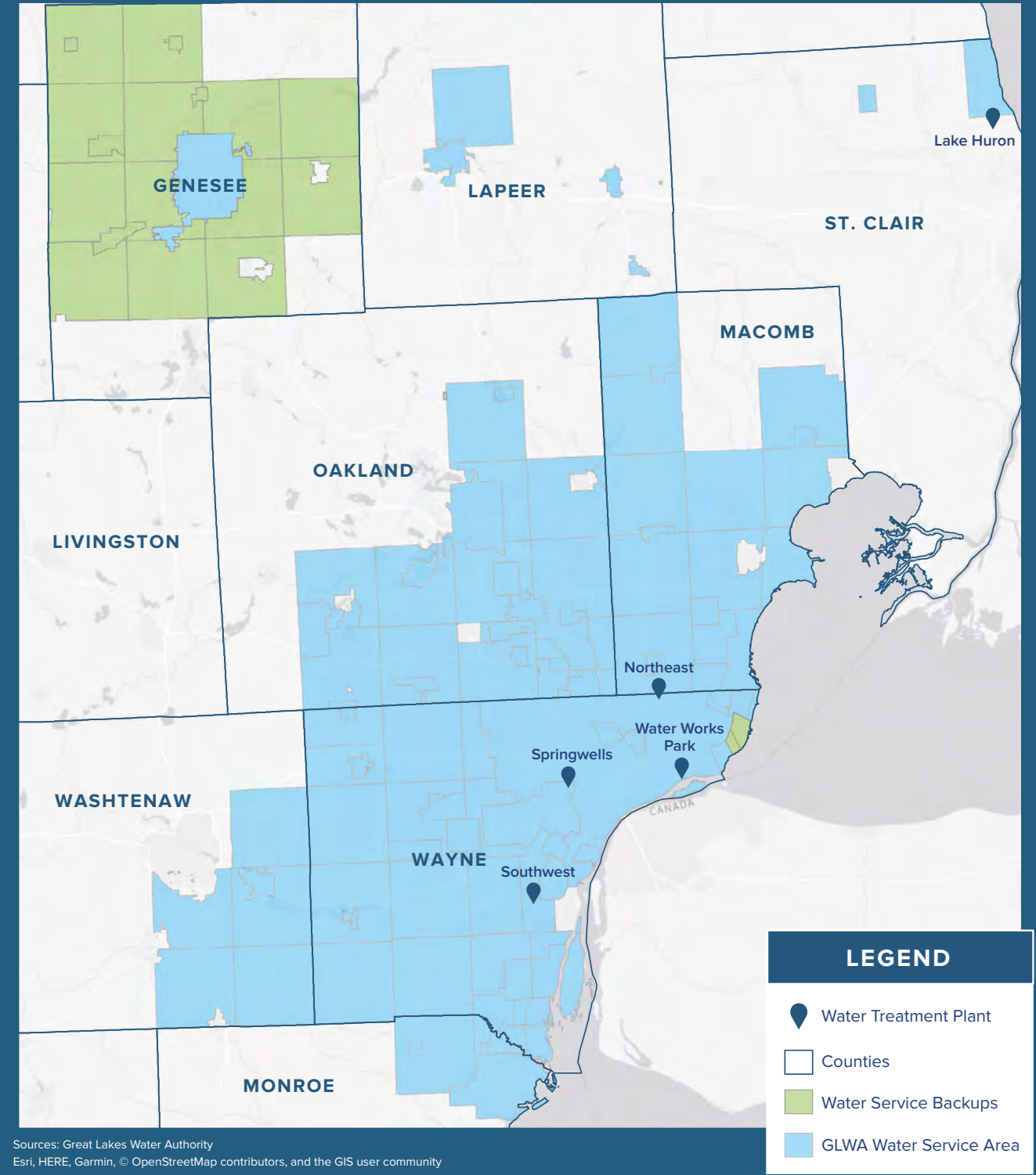
 3 Water  
Intakes   88 Member Partners  
across 112 communities

 Treatment capacity of 1,720  
million gallons per day 

19 BOOSTER  
PUMP STATIONS 

 1,698 SQ. MILE  
service area

GLWA WATER SERVICE AREA (INCLUDING BACKUPS)



Sources: Great Lakes Water Authority  
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



WASTEWATER SYSTEM



The **largest** single-site wastewater treatment facility in the United States



**2.8 MILLION**  
PEOPLE SERVED



**195** miles of trunk sewers & interceptors



Interceptors



**19** Member Partners  
across **79** communities



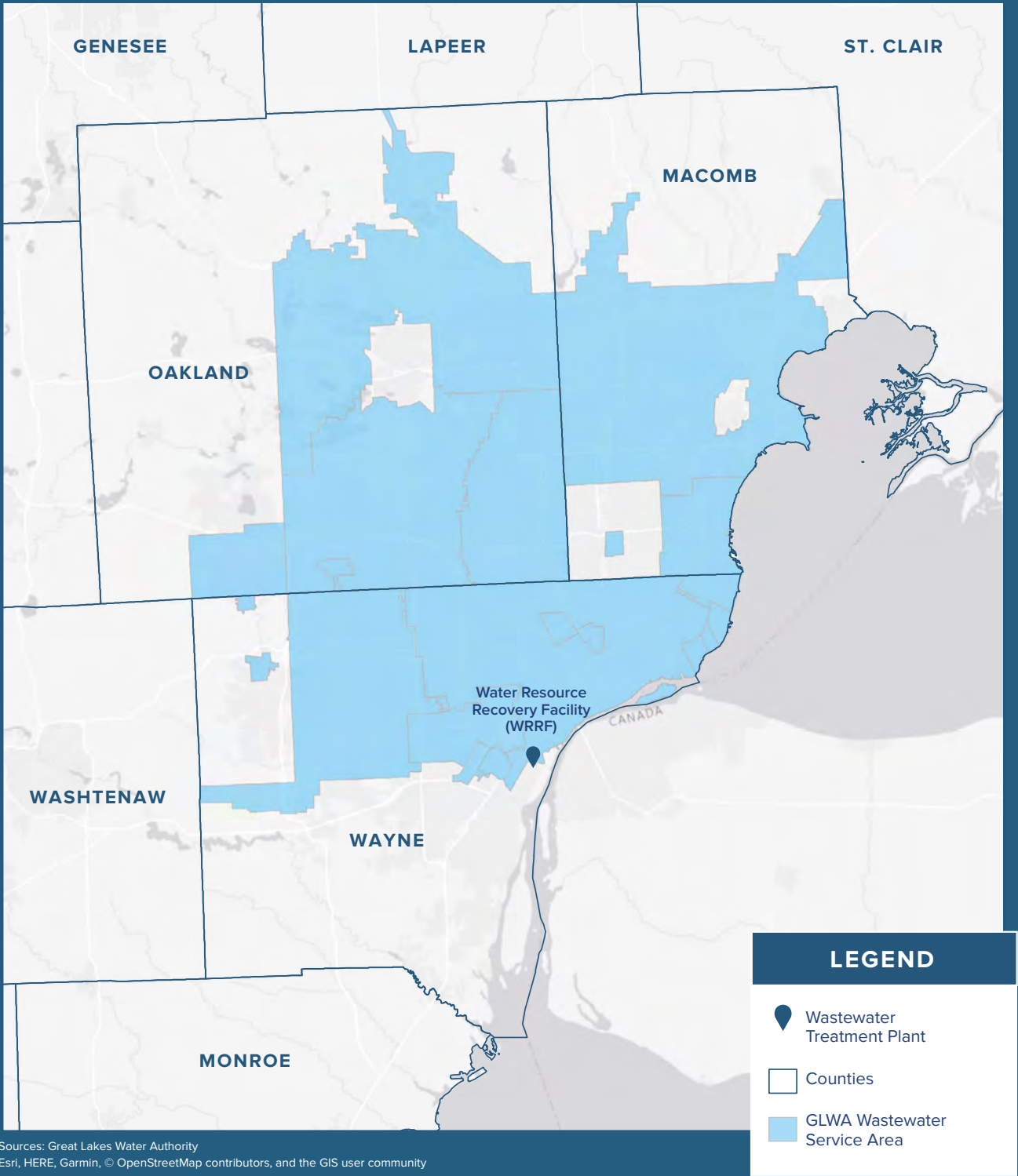
Treatment capacity of **1,700**  
million gallons per day



**944 SQ. MILE**  
service area



GLWA WASTEWATER SERVICE AREA





BOARD OF DIRECTORS



John J. Zech

Board Chair; representative appointed by Wayne County



Jaye Quadrozzi\*\*

Board Vice Chair; representative appointed by Oakland County



Freman Hendrix

Board Secretary; representative appointed by the city of Detroit



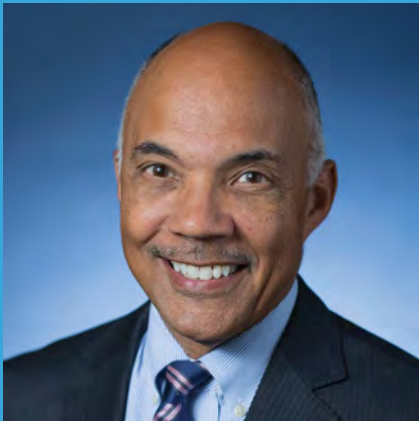
Beverly Walker-Griffea, Ph.D.

Director; board representative appointed by the state of Michigan



Brian Baker

Director; board representative appointed by Macomb County



Gary A. Brown

Director; board representative appointed by the city of Detroit

\*\* Jaye Quadrozzi was elected by the Board to serve as chairperson for 2022.

EXECUTIVE LEADERSHIP TEAM



Suzanne R. Coffey, PE  
Interim Chief Executive Officer



William M. Wolfson  
Chief Administrative and Compliance Officer



Nicolette N. Bateson, CPA  
Chief Financial Officer / Treasurer, Financial Services



Cheryl Porter  
Chief Operating Officer, Water & Field Services



Navid Mehram, PE  
Chief Operating Officer, Wastewater Operating Services



Terri Tabor Conerway  
Chief Organizational Development Officer



Michelle A. Zdrodowski  
Chief Public Affairs Officer



Jeffrey E. Small  
Chief Information Officer



W. Barnett Jones  
Chief Security and Integrity Officer



Randal M. Brown  
General Counsel



Jody Caldwell, PE  
Interim Chief Planning Officer



OUR VISION

Through regional collaboration, GLWA strives to be the provider of choice dedicated to efficiently delivering the nation’s best water and wastewater services in partnership with our member partners.

OUR MISSION

To exceed our member partners’ expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting healthy communities and economic growth.

OUR VALUES

- Approachable  
Reliable  
Trustworthy  
Smart
- Efficient  
Focused  
Determined

ONE WATER

ONE TEAM

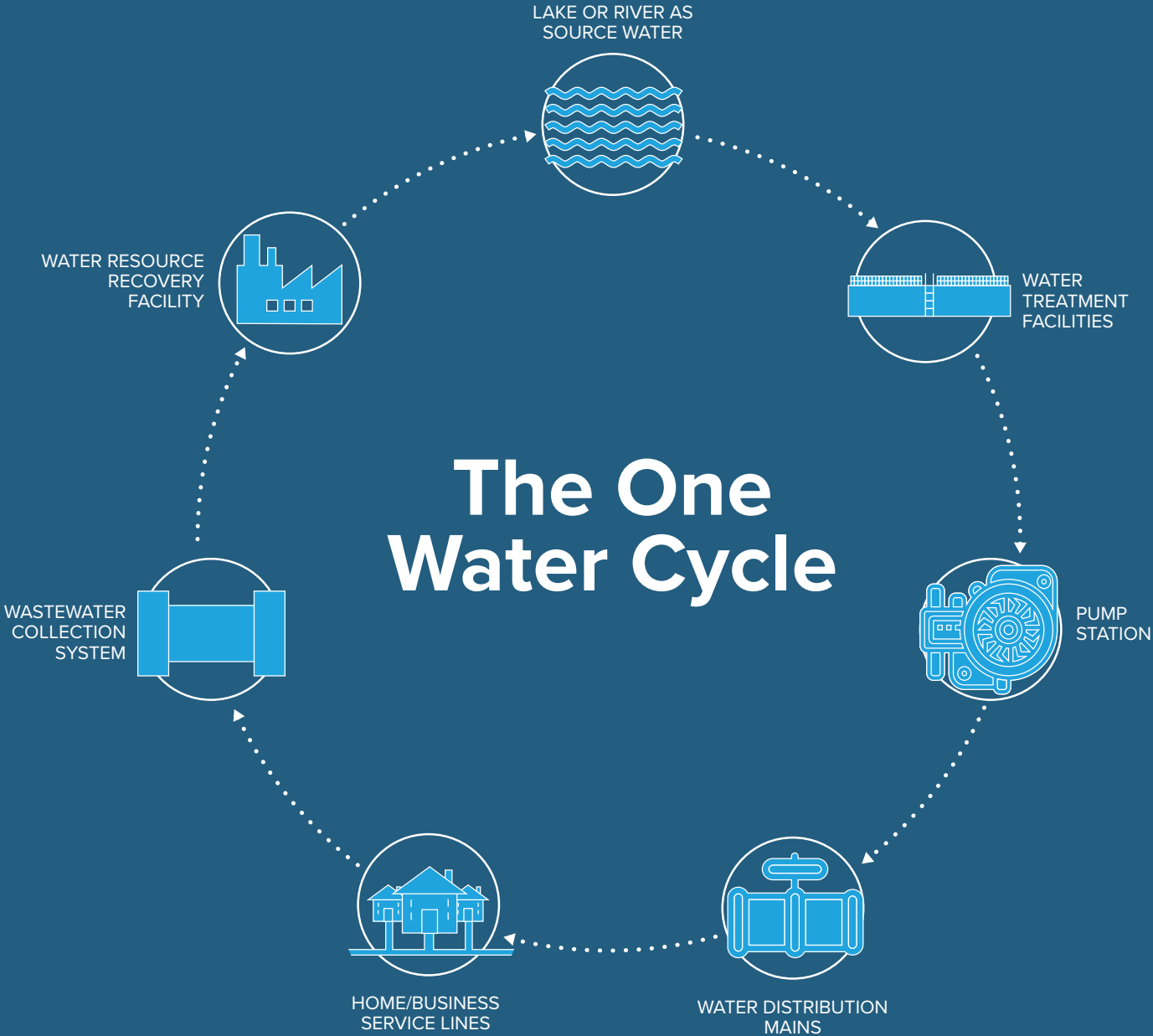
ONE MISSION





GLWA is all about One Water...the movement of water from the environment, to our member partners, and back to the environment. We ensure our member partner communities get the highest quality water using treatment standards that are stricter than state or federal regulatory requirements. Once the water has been used, we run it through our treatment process again before returning it to the environment—oftentimes cleaner than when we received it. Working hand-in-hand with our member partners, GLWA provides water of unquestionable quality and efficient and effective wastewater services.

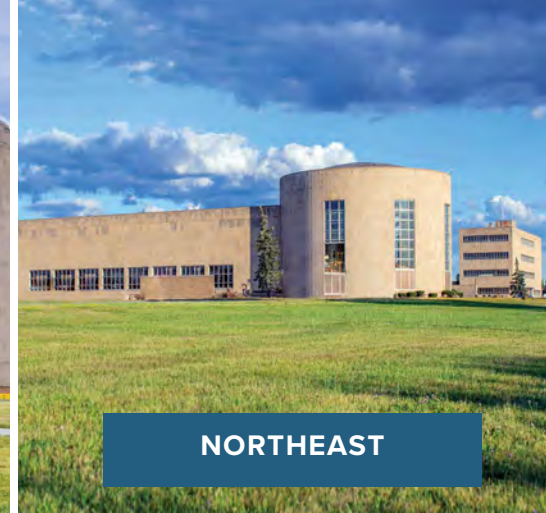
TOGETHER,  
WE ARE  
ONE WATER.



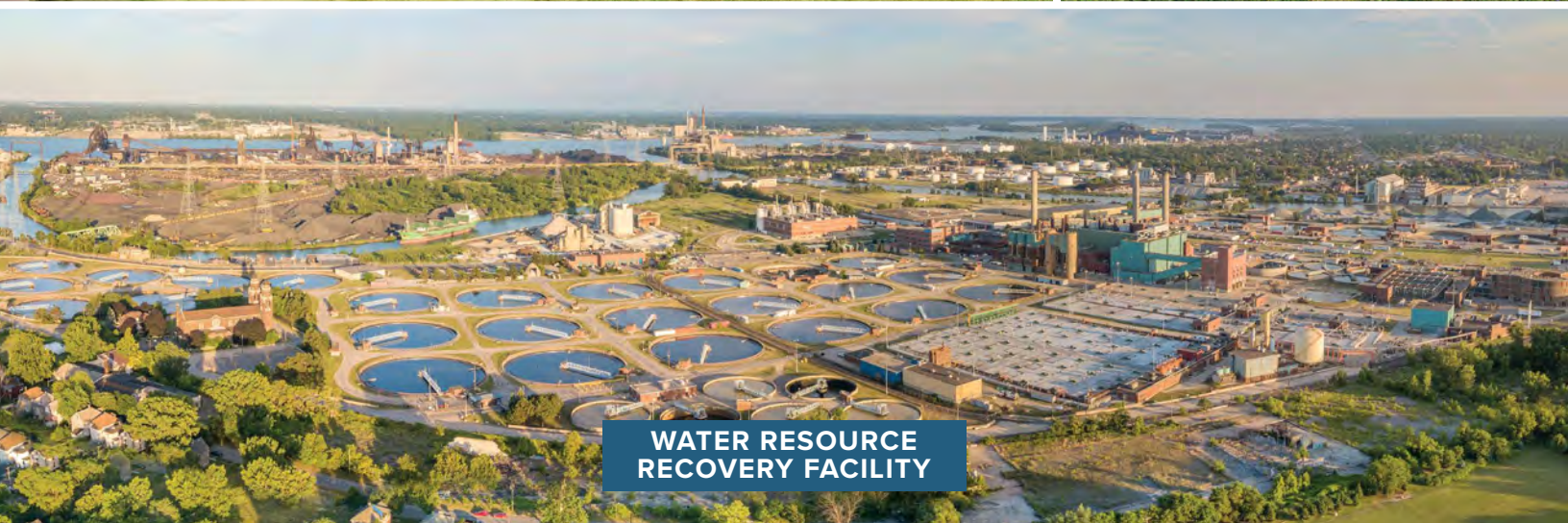




**SPRINGWELLS**



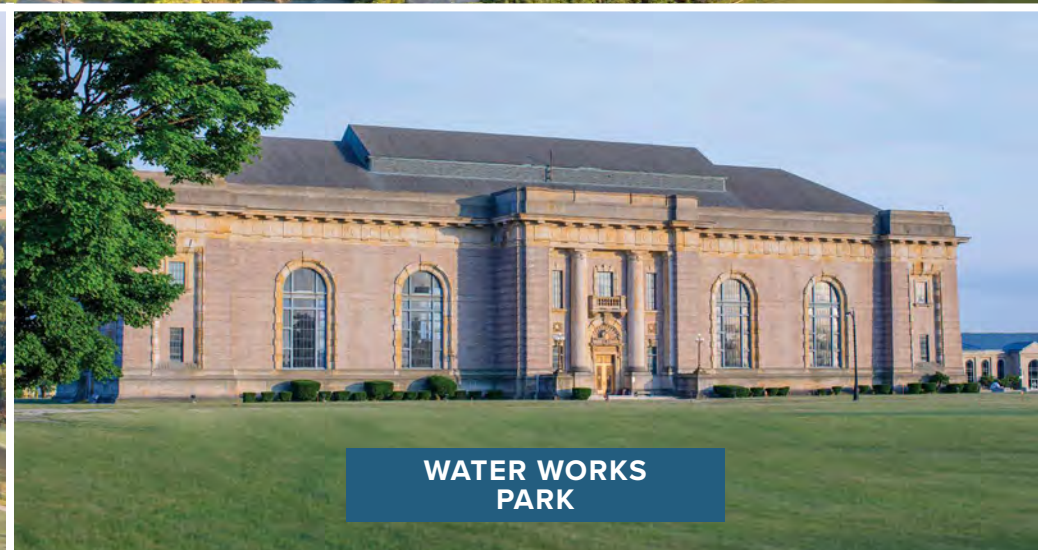
**NORTHEAST**



**WATER RESOURCE  
RECOVERY FACILITY**



**LAKE HURON**



**WATER WORKS  
PARK**



**SOUTHWEST**