



Great Lakes Water Authority

Key Performance Indicators and Effective Utility Management (EUM) Metrics July 9, 2025

Ten Attributes of Effectively Managed Water Sector Utilities (EUM)



Attribute	Attribute Components				
Employee and Leadership Development	Recruits and retains a workforce that is competent, motivated, adaptive, and safety-focused. Establishes a participatory, collaborative organization dedicated to continual learning, improvement, and innovation. Ensures employee institutional knowledge is retained, transferred, and improved upon over time. Provides a focus on and emphasizes opportunities for professional and leadership development, taking into account the differing needs and expectations of a multi-generational workforce and for resource recovery facilities. Establishes an integrated and well-coordinated senior leadership team.				
Operational Optimization	Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations in service to public health and environmental protection. Makes effective use of data from automated and smart systems and learns from performance monitoring. Minimizes resource use, loss, and impacts from day-to-day operations, and reduces all forms of waste. Maintains awareness of information and operational technology developments to anticipate and support timely adoption of improvements.				
Financial Viability	Understands the full life-cycle cost of utility operations and value of water resources. Establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. Establishes predictable rates—consistent with community expectations and acceptability—adequate to recover costs, provide for reserves, maintain support from bond rating agencies, plan and invest for future needs, and taking into account the needs of disadvantaged households. Implements sound strategies for collecting customer payments. Understands the opportunities available to diversify revenues and raise capital through adoption of new business models.				
Infrastructure Strategy and Performance	Understands the condition of and costs associated with critical infrastructure assets. Plans infrastructure investments consistent with anticipated growth, system reliability goals, and relevant community priorities, building in flexibility for evolution in technology and materials, and uncertainty in the overall future operating context (e.g., climate impacts, customer base). Maintains and enhances the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels. Assures asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences.				
Enterprise Resiliency	Ensures utility leadership and staff work together internally, and with external partners, to anticipate, respond to, and avoid problems. Proactively identifies, assesses, establishes tolerance levels for, and effectively manages a full range of business risks (including interdependencies with other services and utilities, legal, regulatory, financial, environmental, safety, physical and cyber security, knowledge loss, and natural disaster-related) in a proactive way consistent with industry trends and system reliability goals.				

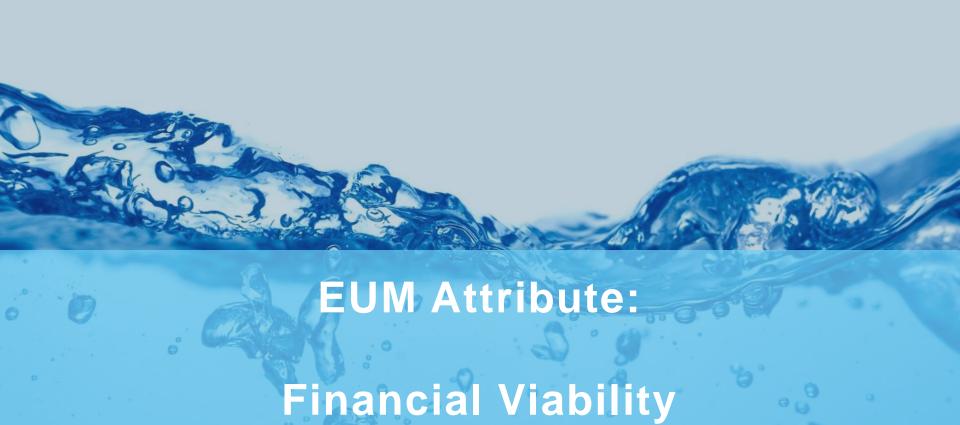


Ten Attributes of Effectively Managed Water Sector Utilities (EUM)



Attribute	Attribute Components
Product Quality	Produces "fit for purpose" water that meets or exceeds full compliance with regulatory and reliability requirements and consistent with customer, public health, ecological, and economic needs. Products include treated drinking water, treated wastewater effluent, recycled water, storm water discharge, and recovered resources.
Customer Satisfaction	Provides reliable, responsive, and affordable services in line with explicit, customer-derived service levels. Utilizes a mix of evolving communication technologies to understand and respond to customer needs and expectations, including receiving timely customer feedback and communicating during emergencies. Provides tailored customer service and outreach to traditional residential, commercial, and industrial customers, and understands and exercises as appropriate the opportunities presented by emergent customer groups (e.g., high strength waste producers, power companies).
Community Sustainability	Takes an active leadership role in promoting and organizing community sustainability improvements through collaboration with local partners (e.g., transportation departments, electrical utilities, planning departments, economic development organizations, watershed and source water protection groups). Manages operations, infrastructure, and investments to support the economic, environmental, and social health of its community. Integrates water resource management with other critical community infrastructure, social, and economic development planning to support community-wide resilience, sustainability, and livability to enhance overall water resource sustainability.
Water Resource Sustainability	Ensures the availability and sustainable management of water for its community and watershed, including water resource recovery. Understands its role in the complete water cycle, understands fit for purpose water reuse options, and integrates utility objectives and activities with other watershed managers and partners. Understands and plans for the potential for water resource variability (e.g., extreme events, such as drought and flooding), and utilizes as appropriate a full range of watershed investment and engagement strategies (e.g., Integrated Planning). Engages in long-term integrated water resource management, and ensures that current and future customer, community, and ecological water-related needs are met.
Stakeholder Understanding and Support	Engenders understanding and support from stakeholders (anyone who can affect or be affected by the utility), including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions. Actively promotes an appreciation of the true value of water and water services, and water's role in the social, economic, public, and environmental health of the community. Involves stakeholders in the decisions that will affect them, understands what it takes to operate as a "good neighbor," and positions the utility as a critical asset to the community.





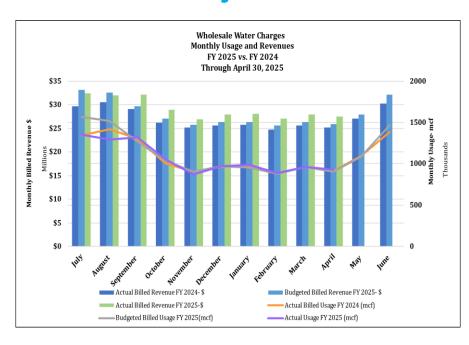


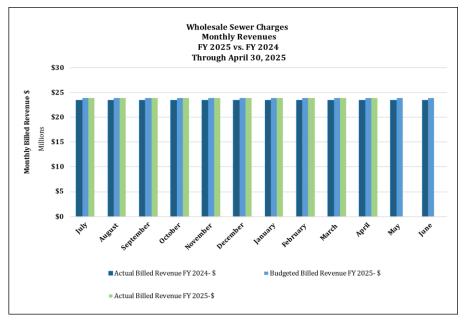
Financial Viability – Reliability of Wholesale Water and Sewer **Revenue Projections**



Yellow = 85-99%Red = < 85%

Current water system wholesale forecasts indicate revenues will meet budget expectations.





Wholesale Water System billed revenues for FY 2025 are at 99.92% of original, budgeted charge revenue. Actual usage is at 99.18% of original, budgeted usage. This equates to a revenue shortfall of \$250 thousand through April 2025. Billed revenue for FY 2025 was 3.7% higher compared to the same period in FY 2024.

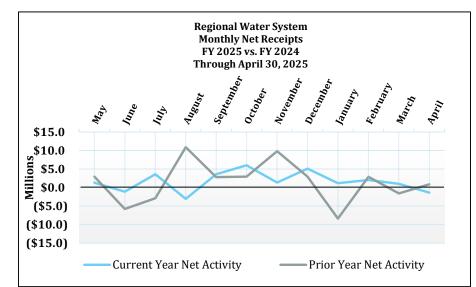
Wholesale Sewer System billed revenues for FY 2025 are at 100% of original budgeted charge revenue (based on the full fixed monthly charge). Billed revenue for FY 2025 was 1.7% higher compared to the same period in FY 2024

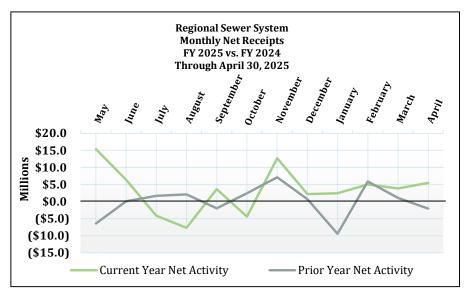


Financial Viability – GLWA Regional System Net Receipts

For the purposes of this reporting, **Net Receipts equals cash collections less Master Bond Ordinance (MBO) disbursements**.

The black line in the charts below at zero highlights the minimum goal for net receipts. While this measure may vary monthly based on billing and collection cycles, cumulative positive net receipts supports long-term financial sustainability.



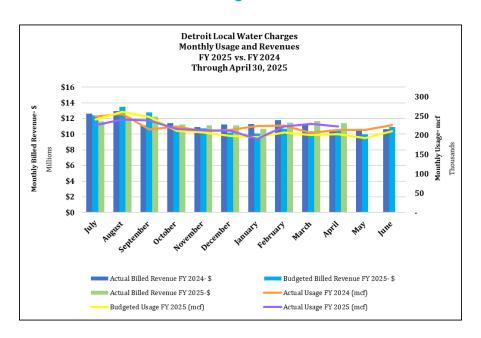


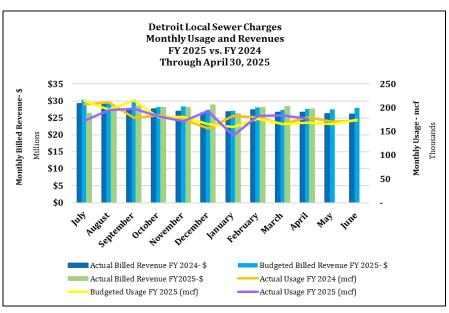
Regional Water System net receipts for the month of April 2025 fell short of required MBO disbursements by \$1.4 million. Despite this shortfall, this still equates to a 7% surplus of net monthly receipts over required disbursements or \$19.5 million year-to-date.

Regional Sewer System net receipts for the month of April 2025 exceeded required MBO disbursements by \$5.5 million. This equates to a 5% surplus of net monthly receipts over required disbursements or \$19.1 million year-to-date.



Financial Viability – Reliability of Detroit Local Water and Sewer Revenue Projections





<u>Detroit Local Water System</u> billed revenues for FY 2025 are at 102.31% of budget and actual usage at 101.83% of budget through April 2025. Billed revenue for FY 2025 is 0.3% lower compared to the same period in FY 2024.

<u>Detroit Local Sewer System</u> billed revenues for FY 2025 are at 98.09% of budget and actual usage at 98.54% of budget through April 2025. Billed revenue for FY 2025 is 1.4% higher compared to the same period in FY 2024.



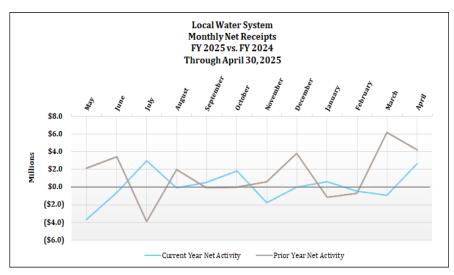
Financial Viability – DWSD Local System Net Receipts

For the purposes of this reporting, **Net Receipts equals cash collections less Master Bond Ordinance (MBO) disbursements**.

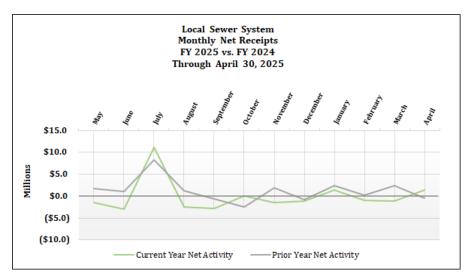
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While this measure may vary monthly based on billing and collection cycles,

Cumulative positive net receipts supports long-term financial sustainability.



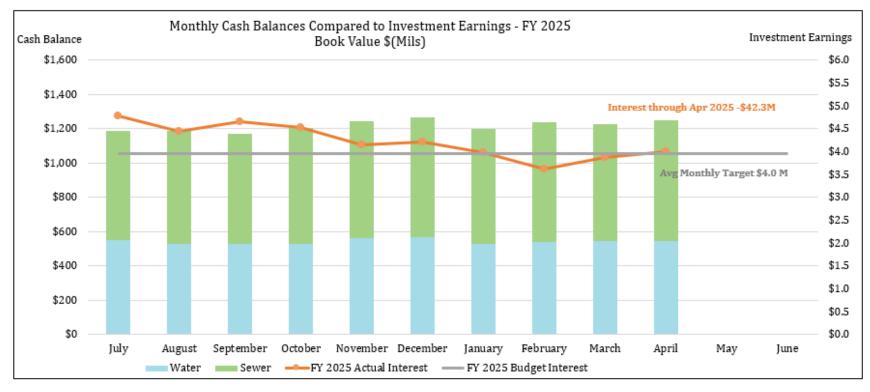
<u>Local Water System</u> net receipts for the month of April exceeded required MBO disbursements by \$2.7 million. This equates to a 5% surplus of net monthly receipts over required disbursements or a \$5.3 million surplus year-to-date.



<u>Local Sewer System</u> net receipts for the month of April exceeded required MBO disbursements by \$1.4 million. This equates to a 2% surplus of net receipts over required disbursements or a \$4.1 million surplus year-to-date.



Financial Viability – Optimizing Cash Balances



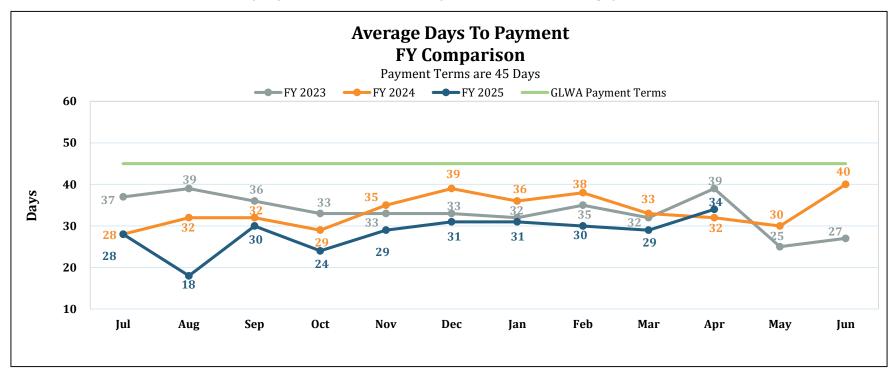
- Cash & investment balances for the water & sewer funds change each month based on Master Bond Ordinance funding, operational requirements, capital funding, and debt payments.
- Investment earnings fluctuate monthly with the cash & investment balances as well as market conditions and investment strategy.
- The average monthly target of \$4.0 million is based on an annual forecast of \$47.5 million for interest earnings.
- For the month of April 2025, GLWA had investment earnings of \$4.0 million and cumulative FY 2025 earnings of \$42.3 million.
- GLWA continues to refine cash flows and work with its investment advisor to identify strategies to maximize future investment earnings while meeting the objectives of safety and liquidity.



Financial Viability – Days to Pay an Invoice



The goal is a twelve-month average of < 30 days to support vendor relations and expand the early payment discount program. The number of days is calculated as the days between invoice and payment date.



Timely vendor payments support:

- Positive supplier relations;
- Leveraging early payment discounts; and
- Effective cashflow management.

Twelve-month average days to payment								
FY 2023	FY 2024	FY 2025 (rolling calendar)						
33	30	30						

The **FY 2025** average days to pay aligns with the target of 30 days or less. The Accounts Payable team continues to work in conjunction with the Procurement team to assist in improving vendor management and compliance.

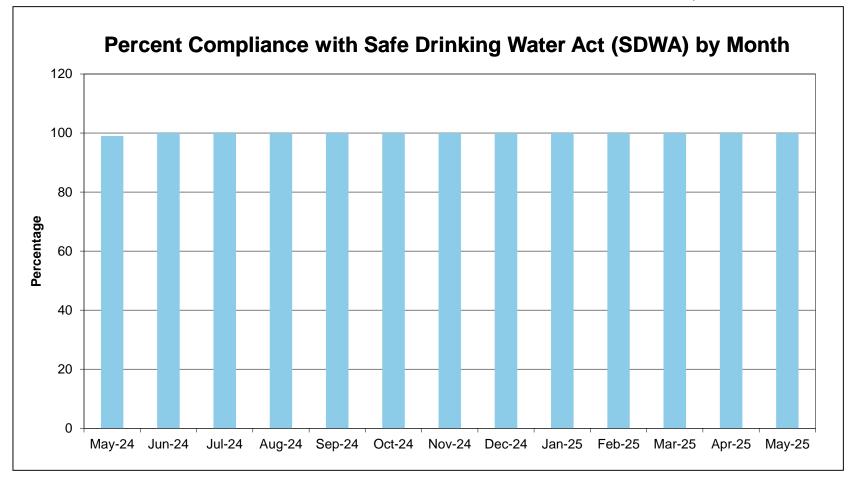






Product Quality – SDWA Compliance

Green = 100% compliance Red = <100% compliance



Product Quality: GLWA's goal is to surpass Safe Drinking Water Act requirements, and this slide indicates compliance for the month.



Product Quality Regulatory Compliance -**Effluent Phosphorous Concentration**

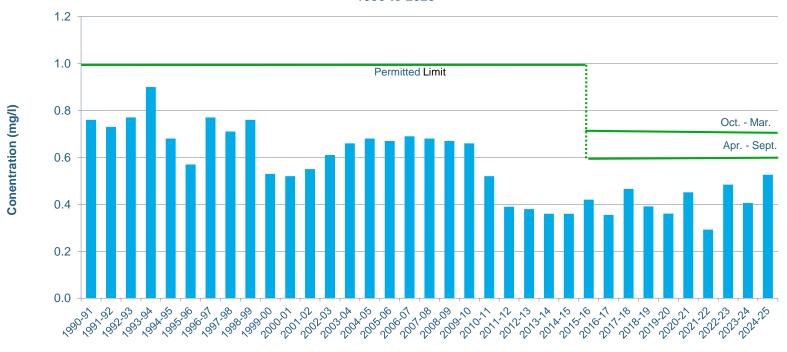


Green= Below 80% of permit levels Yellow = 80-100% of permit levels Red = Exceeds permit level

Phosphorus levels are in regulatory compliance but above internal targets. Contributors to high phosphorus include low system flows and increased phosphate addition to drinking water.

- Significant progress has been made in the reduction of effluent phosphorus.
- GLWA strives to surpass Federal and State requirements.

Effluent Phosphorus Concentration 1990 to 2025







EUM Attribute:

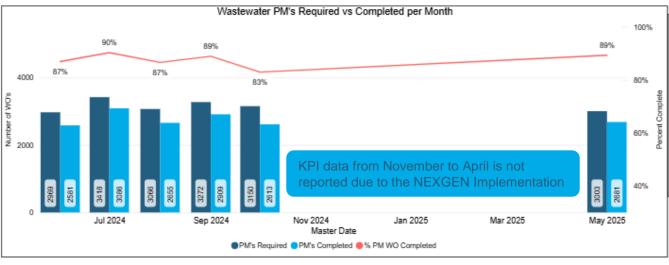
Infrastructure Strategy and Performance



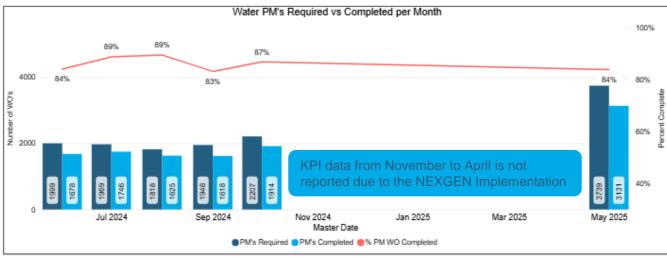
Infrastructure Strategy and Performance – Wastewater and Water Preventative Maintenance (PM) Management

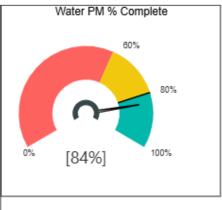


Results were in line with targets









*Timely preventative maintenance extends asset useful life and minimizes unplanned downtime.

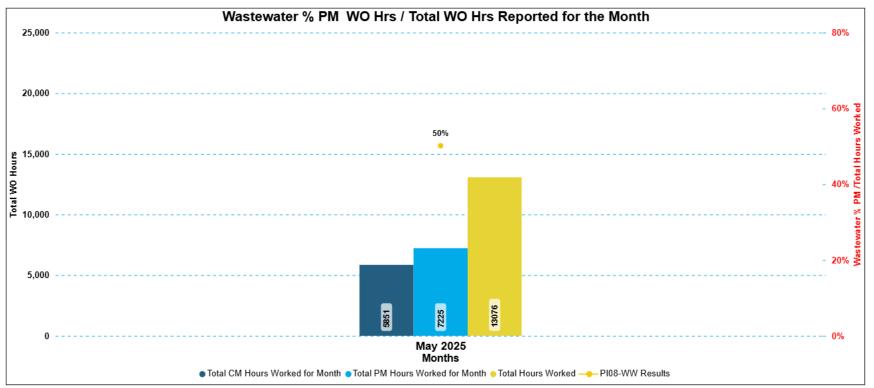
*Unplanned downtime can lead to permit noncompliance and negative environmental impacts.



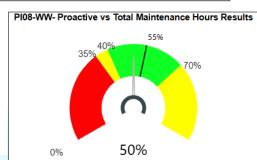
Infrastructure Strategy and Performance – Wastewater Preventative & Corrective Maintenance Management



May 2025



PIO8: Proactive vs. Total Maintenance Labor Hours KPI aligns with the Society of Maintenance and Reliability Professionals (SMRP) Best Practice 5.1.2 and AWWA's planned maintenance ratio KPI. This indicator builds upon the previous work order ratio KPI by using labor hours instead of work order counts, providing a more accurate reflection of the resources required for different types of maintenance. It acknowledges the varying labor demands between corrective and proactive work and aligns more closely with industry best practices. The KPI uses a running average to minimize volatility and leverages enhanced data capture capabilities made possible through the implementation of NEXGEN at GLWA.



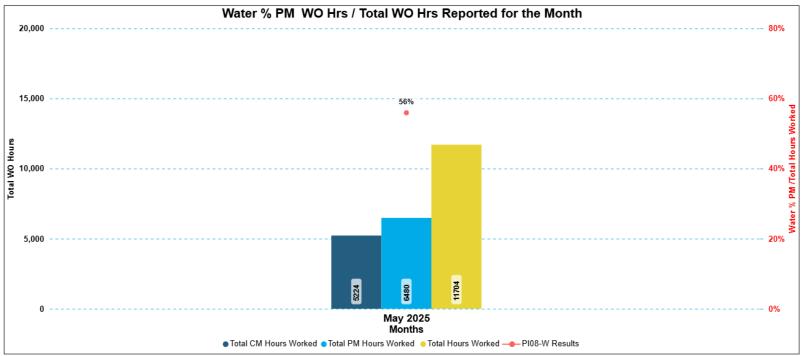


Infrastructure Strategy and Performance – Water Preventative & Corrective Maintenance Management

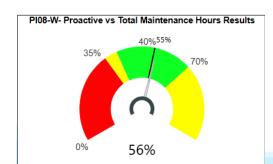


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PM = Preventative Maintenance

CM = Corrective Maintenance



EUM Attribute:

Operational Optimization

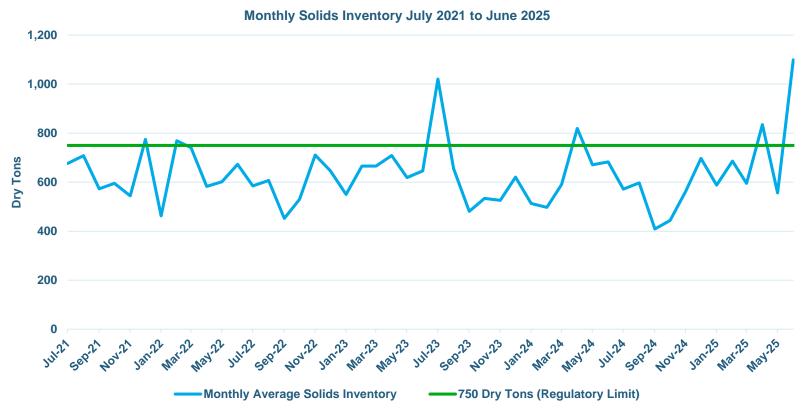


Operational Optimization Regulatory Compliance – Monthly Solids Inventory



Green= Avg. <750 dry tons Yellow = Avg. 725-750 dry tons Red = Avg. >750 dry tons Regulatory limit was waived for May. Recycling occurred but was below reportable amounts.

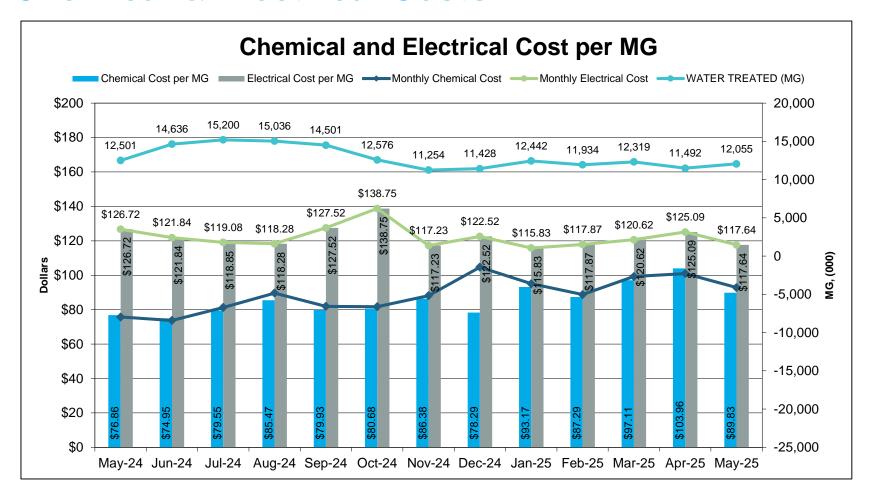
- Solids inventory is a measure of process performance and is regulated by the State.
- Having consistently tracked below 750 dry tons since Oct. 2014 is noteworthy.





Note: No violation occurred in December 2021, February 2022, July 2023, April 2024, April 2025, or June 2025: the limit did not apply in those months due to the number of days on which Primary Effluent discharge occurred.

Operational Optimization Chemical & Electrical Costs



Operational Optimization: Being able to identify ongoing performance improvements for chemical and electrical usage per MG of water pumped is a key metric in managing operational cost. This slide is under development to include tracking of total costs per MG.





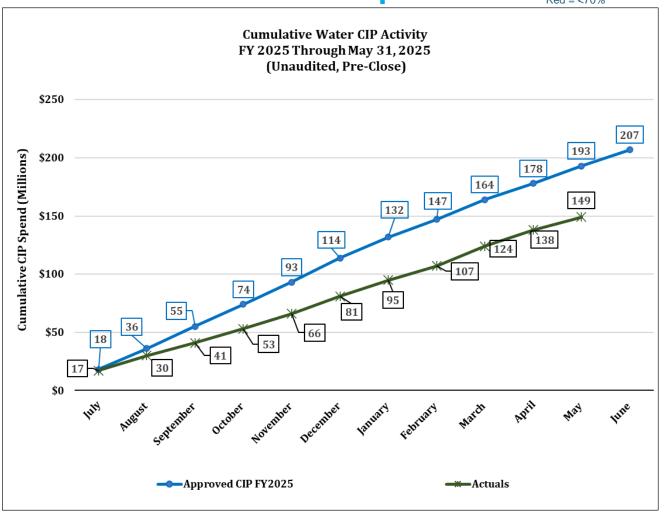
EUM Attribute:

Enterprise Resiliency



Enterprise Resiliency FY 2025 Total Water CIP Spend





Water System is underspending due to delayed start of major projects. The underspend is primarily driven by **22019**:

Jefferson Main Replacement Project:

This project is currently paused due to coordination with the City of Detroit.

122016: Downriver

Transmission Main Loop: and 111012: LHWTP-

Flocculation

Improvements started late due to design challenges. These projects account for \$45M underspend

Current Status:

The water system incurred \$149 million of CIP costs through May 2025.

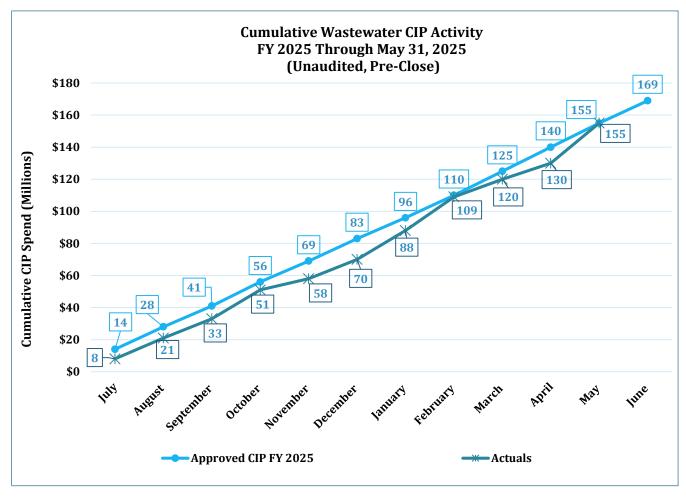
This is 77% of the FY 2025 monthly *Approved CIP2025-2029*.

Note: The Capital Spend Rate for FY 2025 CIP with a new forecast of \$207 million is set with a capital spending ratio of 100%.



Enterprise Resiliency FY 2025 Total Wastewater CIP Spend





Current Status:

The wastewater system incurred \$155 million of CIP costs through May 2025.

This is 100% of the FY 2025 monthly *Approved CIP2025-2029*.

Note: The Capital Spend Rate for FY 2025 CIP with a new forecast of \$169 million is set with a capital spending ratio of 100%.



Enterprise Resiliency – Procurement Cycle

May 1, 2024 through April 30, 2025

Procurement cycles indicate the amount of time that passes from sourcing to contract (purchase order) award.

This report contains BS&A and Workday data.

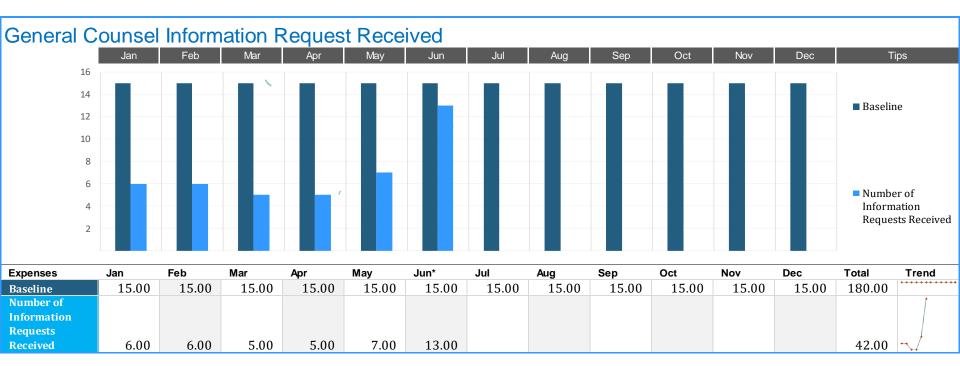
Award Bracket	Method	Average Days	Purchase Order Count	Total Amount
Greater than \$1M	Request for Bid (RFB)	51.7	10	\$ 505,479,580
	Qualifications Based Selection (QBS)	97.5	13	97,349,245
	Specialized Procurement	51.5	11	26,390,288
	Contract Task Order	51.0	1	3,759,707
	Emergency Purchase	77.0	1	3,159,000
Greater than \$1M Total		68.9	36	\$ 636,137,820
Less than \$1M Greater than \$50K	Specialized Procurement	36.3	164	37,465,862
	Contract Task Order	49.3	23	8,799,915
	Request for Bid (RFB)	74.1	13	3,402,443
	Qualifications Based Selection (QBS)	104.8	5	1,816,267
	Emergency Purchase	18.5	4	1,708,965
	Unauthorized Purchase	7.0	1	63,000
Less than \$1M Greater than \$50K Total		41.2	210	\$ 53,256,452
Under \$50K	Small Purchase	7.3	2369	11,667,910
	Inventory (L&M Only)	2.9	1690	3,552,255
	Specialized Procurement	40.2	50	1,184,631
	Contract Task Order	8.0	6	51,301
	Unauthorized Purchase	17.3	10	27,526
	Emergency Purchase	9.0	1	6,968
Under \$50K Total		5.9	4126	\$ 16,490,591
Grand Total			4372	\$ 705,884,863

- Several methods are utilized to procure goods and services.
- Specialized
 Procurement leverages
 efficiencies using
 cooperative
 agreements, which
 streamline purchasing
 processes, reduce
 administrative
 burdens, and improve
 procurement
 outcomes.
- GLWA awarded \$705.9 million and completed 4,372 purchase requests.



Enterprise Resiliency – General Counsel Information Requests Received





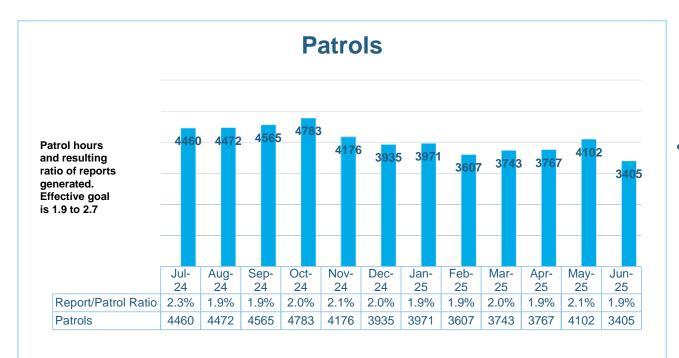
One of the measures of organizational transparency is access to information. GLWA maintains many avenues of informal information access, including through its website. To the extent the information is readily available, the Office of the General Counsel should receive fewer FOIA requests over time.



Enterprise Resiliency – Security & Integrity



Green= 2350 or more patrols Yellow = 2000-2350 patrols Red = <2000 patrols



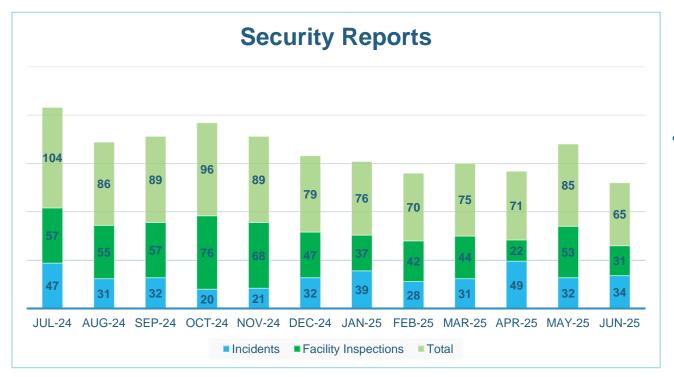
 Patrols are an indication of the level of services rendered by the staff of the Security & Integrity Group.



Enterprise Resiliency – Security & Integrity



Green= 1.9-2.7 avg. per patrol Yellow = 1.5-<1.9 avg. per patrol Red = <1.5 or >2.9 avg. per patrol

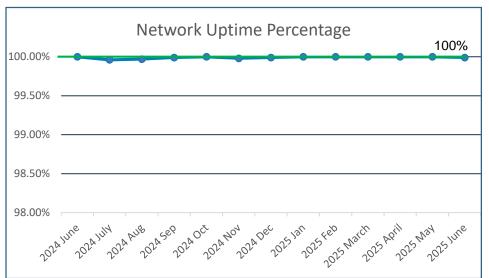


 Security reports are an indication of the effectiveness of security programs (less is better).





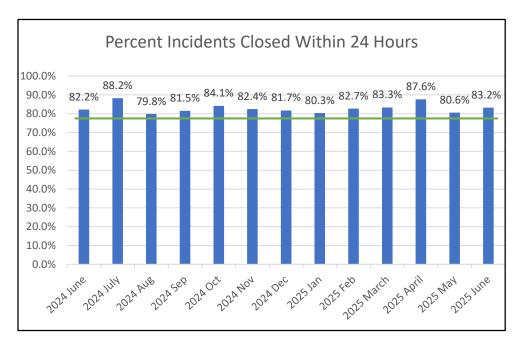
Green= 99.98-100% Yellow = 99.5-99.97% Red = <99.5%



- GLWA has 42 monitored, network-connected sites, including offices, plants, pump stations, and other facilities.
- Network connectivity allows employees to access the applications needed to do their work and connects plants and pump stations to the intranet to report operational data





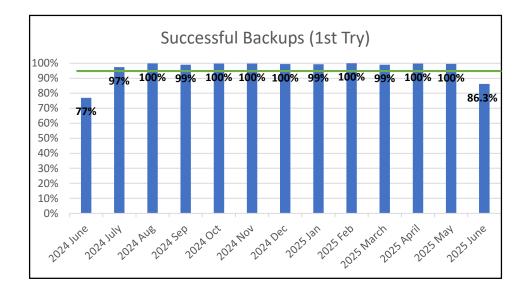


- An Incident is a technology issue that is preventing an employee from performing some part of their job duties
- Quick resolution of incidents increases employee productivity.
- The industry standard for 24-hour resolution is 68%





Yellow = 90-<95% of 1st attempts Red = <90% of 1st attempts Successful backups metric is red due to expired service accounts that caused backups to fail. A solution has been put in place to ensure this does not happen again.

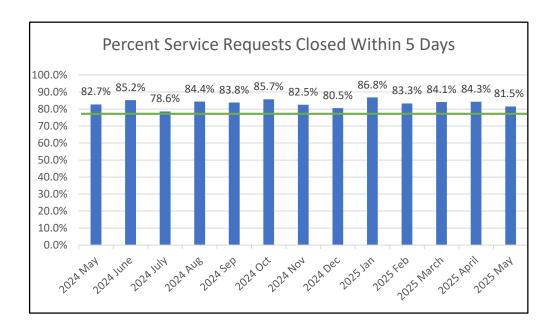


- Backups ensure that GLWA's information is safe in case of unexpected disruptions.
- Successfully backing up on the first try streamlines operations and frees up resources for other tasks.





Green= 78-100% Yellow = 68-<78% Red = <68%

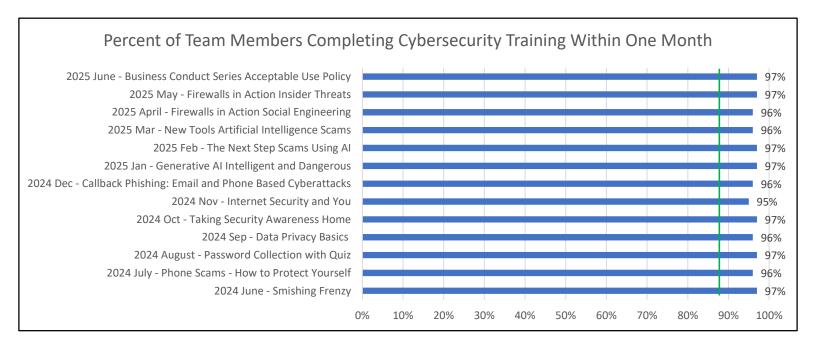


- A service request is a request for IT work that is not preventing an employee from performing their work.
- Timely fulfilment of service requests ensure that employees have the technology resources needed to do their jobs and increases job satisfaction.





Green= 90-100% Yellow = 80-90% Red = <80%



- End users are responsible for 80 percent of cybersecurity breaches.
- Well trained users are less likely to take action that could cause a breach



Enterprise Resiliency – Days Without an OSHA Recordable Injury

Current number of days without a GLWA team member having an OSHA recordable accident event.

26

FY 2025: Longest number of days without a GLWA team member having an OSHA recordable accident event.

92

Key Performance Criteria: Promoting Team Member safety is a key part of Enterprise Resiliency





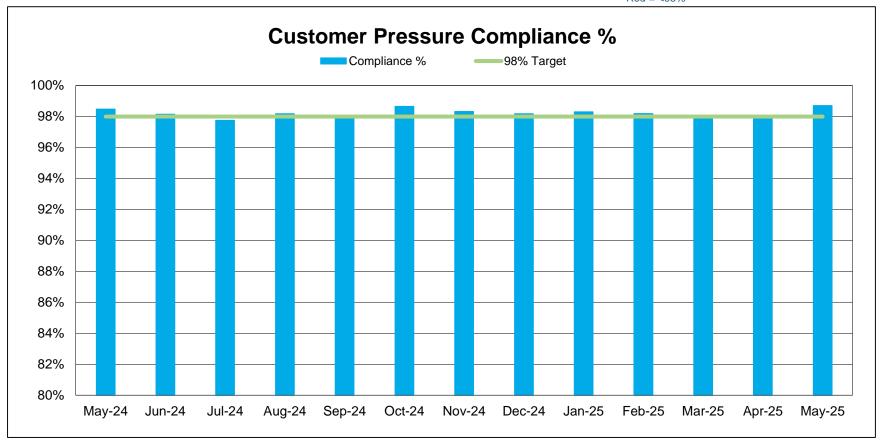
EUM Attribute:

Customer Satisfaction



Customer Satisfaction – Water & Field Services





Operational Resiliency: To exceed customer compliance by being greater than 98% of contractual pressures.





EUM Attribute:

Community Sustainability



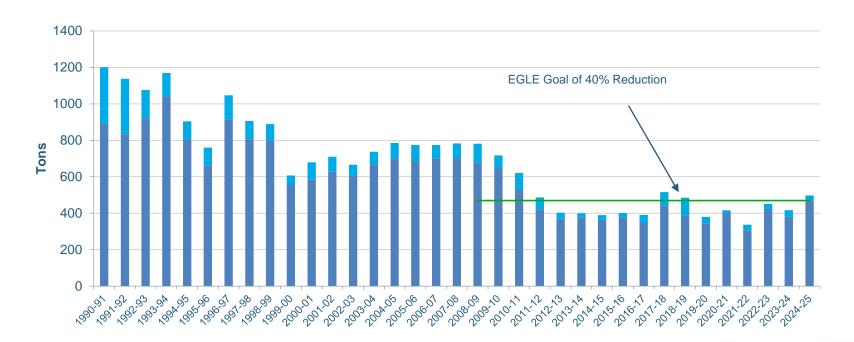
Community Sustainability – Watershed Health



The 2024-25 loading exceeded the goal due to increased dosing of orthophosphate to the water distribution system.

- State and Federal regulators have a goal of 40 percent reduction in phosphorus loading in the Western Lake Erie Basin.
- GLWA has surpassed the State and Federal goal.

Effluent Phosphorus Loading July 1990 to June 2025







EUM Attribute:

Water Resource Sustainability

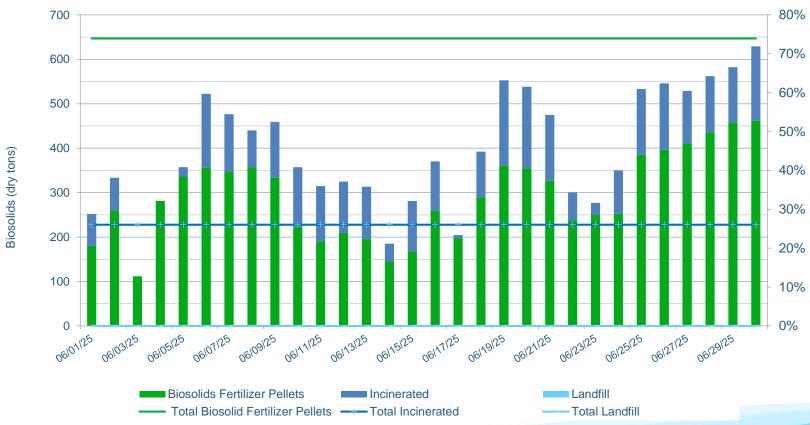


Water Resource Sustainability – Biosolids Handling by Method



Biosolids Dryer Facility handled 74% of solids production for June 2025. No solids were landfilled.

- GLWA strives to increase nutrient recovery and beneficial reuse of biosolids.
- Use of the biosolids dryer facility for solids handling is preferred because it uses biosolids for the production of fertilizer pellets.







EUM Attribute:

Stakeholder Understanding and Support

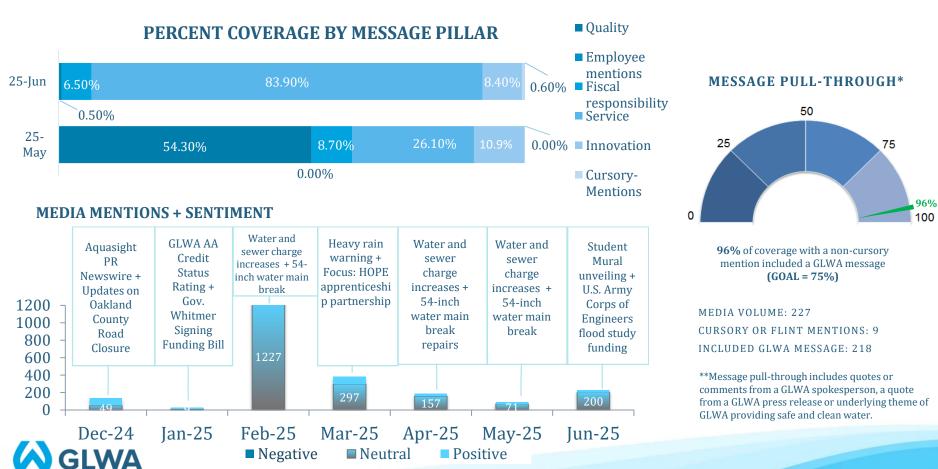


TRADITIONAL MEDIA SUMMARY

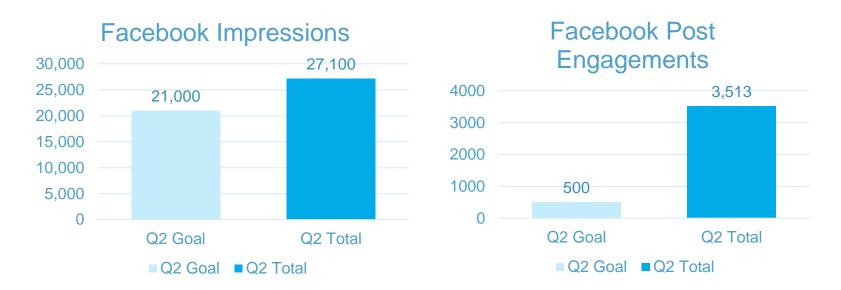


Green = <75% message pull through Yellow = <76 - >60% pull through Red = >60 pull through

Traditional media coverage was primarily neutral with an increase in positive stories for the month. Most coverage centered around the GLWA/DPSCD student contest mural unveiling and the additional funding for the U.S. Army Corps of Engineers flood study. GLWA had great message pull-through regarding GLWA's warnings for residents in flood-prone and low-lying areas to take precautions during the heavy storms that passed in mid-June. Additionally, there was strong message pull-through with outlets reporting on the funding awarded to GLWA for the PFAS Compounds Remediation Project. This month's media coverage yielded 96 percent of stories with non-cursory mentions containing a GLWA quote or message.



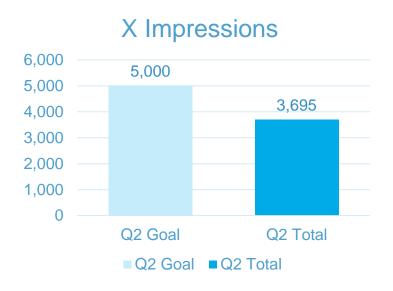
FACEBOOK Q2 2025 REVIEW



- This quarter, posts including photo carousels performed best, with high engagement across the board.
- Top content includes the DTE/GLWA joint statement, severe weather alerts, and GLWA apprenticeship graduation recaps.



X Q2 2025 REVIEW

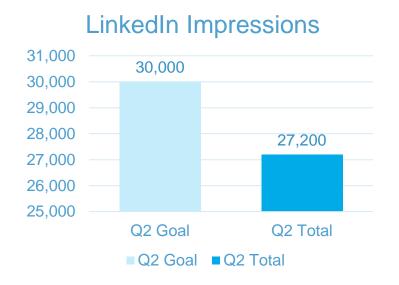




- ♦ This quarter's X content included multiple posts shared from other pages, resulting in lower native impressions and engagement attributed to GLWA's page. While these posts performed well, they don't count toward GLWA's data but do increase the overall footprint.
- **♦** Top content includes shared posts **around AWWA's ACE 2025 and Cheryl Porter's tenure as President**, **severe weather alerts**, and the **Public Affairs AWWA award**.



LINKEDIN Q2 2025 REVIEW





- GLWA's LinkedIn profile continues to grow with new leadership voices from Navid Mehram, Pat Butler, and Majid Khan, among others. Leadership participation on LinkedIn has expanded the GLWA reach and network on the platform to best position the organization on a national scale.
- **♦** Top content includes conversations around the WRRF 85th Anniversary, the GLWA WRRF mural, and the 2024 Year in Review book.





EUM Attribute:

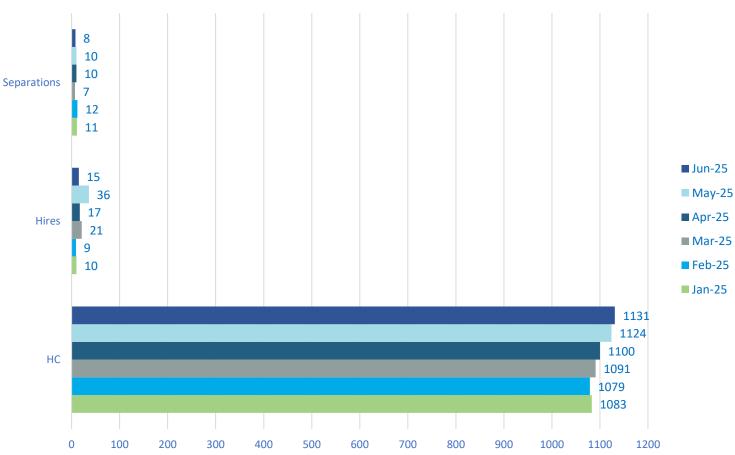
Employee and Leadership Development



Organizational Development





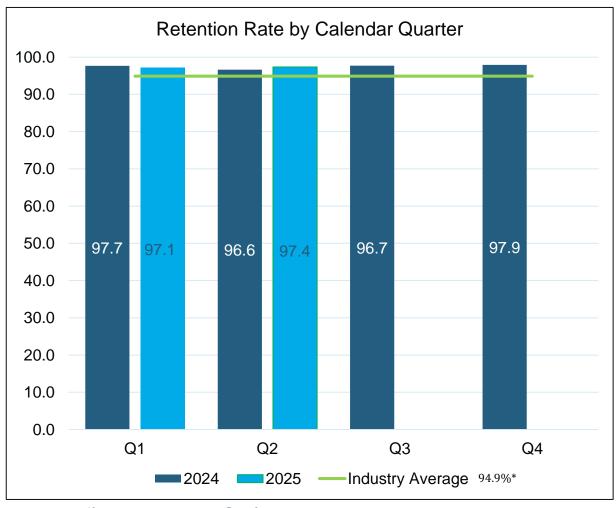


*Headcount is as of month end



Organizational Development





 Retention leads to decreased training costs, increased productivity, and cross training and development.

*From the U.S. Bureau of Labor Statistics 10-Oct-2016 report for the sector "State and Local Government, Excluding Education."

Above retention rates are reflected in percentages

