

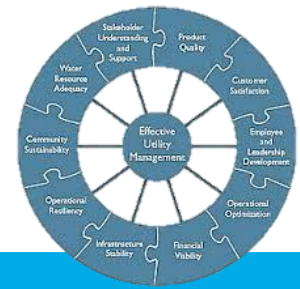


Great Lakes Water Authority

Key Performance Indicators and
Effective Utility Management (EUM) Metrics

December 10, 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)

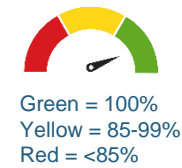


Attribute	Attribute Components
Product Quality	Produces “fit for purpose” water that meets or exceeds full compliance with regulatory and reliability requirements and consistent with customer, public health, ecological, and economic needs. Products include treated drinking water, treated wastewater effluent, 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.

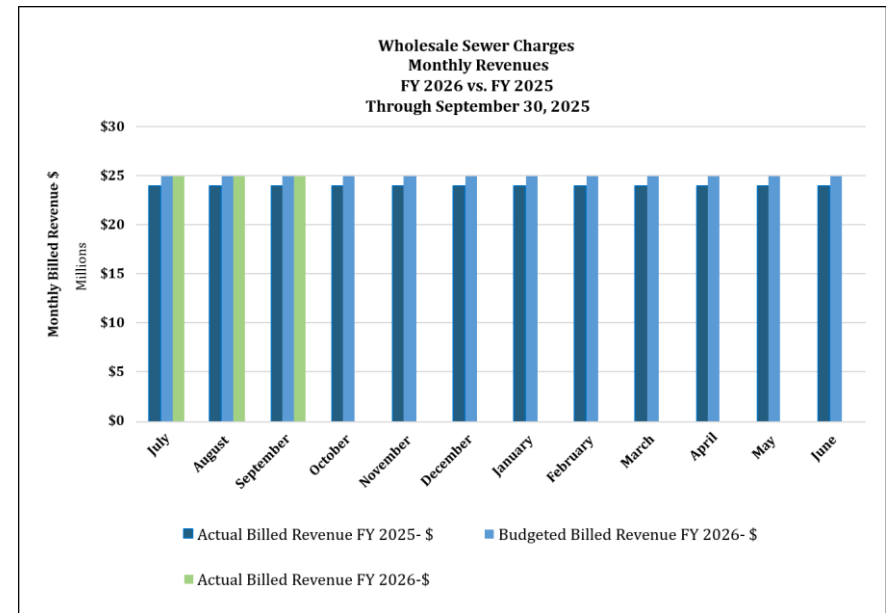
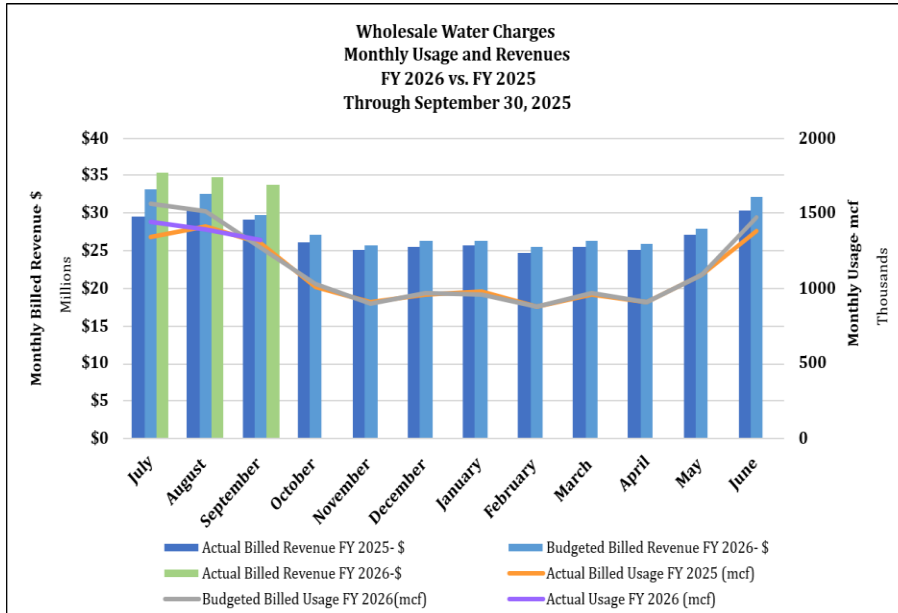
A dynamic splash of water in shades of blue, with bubbles and ripples, serving as the background for the slide.

EUM Attribute: Financial Viability

Financial Viability – Reliability of Wholesale Water and Sewer Revenue Projections



Water system wholesale monthly billed revenues exceeds the budgeted amount.

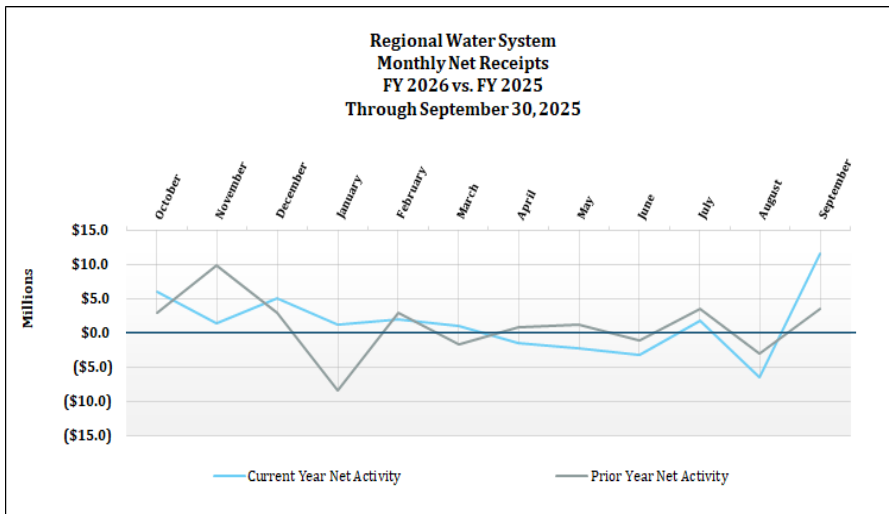


Wholesale Water System billed revenues for FY 2026 are at 101.37% of original, budgeted charge revenue. Actual usage is at 102.42% of original, budgeted usage. This equates to a revenue surplus of \$1.41 million through September 2025. Billed revenue for FY 2026 was 7.8% higher compared to the same period in FY 2025.

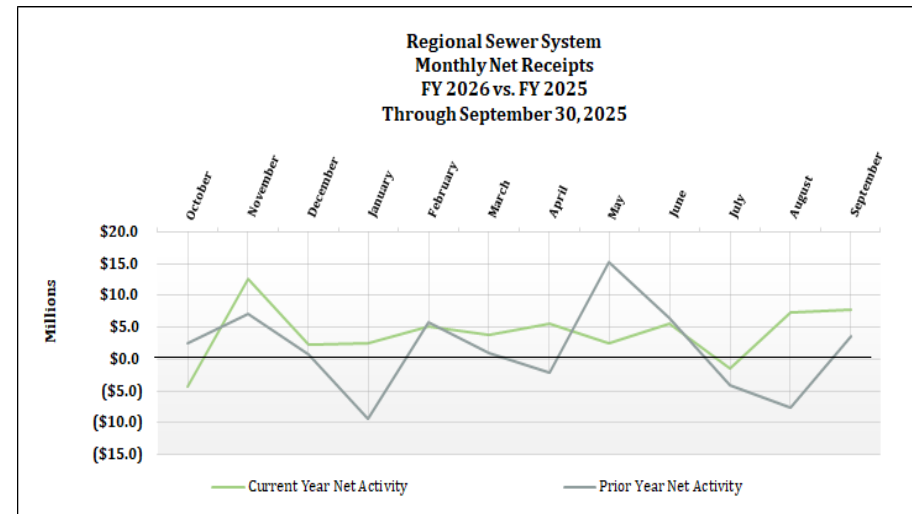
Wholesale Sewer System billed revenues for FY 2026 are at 100% of original budgeted charge revenue (based on the full fixed monthly charge). Billed revenue for FY 2026 was 4.4% higher compared to the same period in FY 2025.

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.

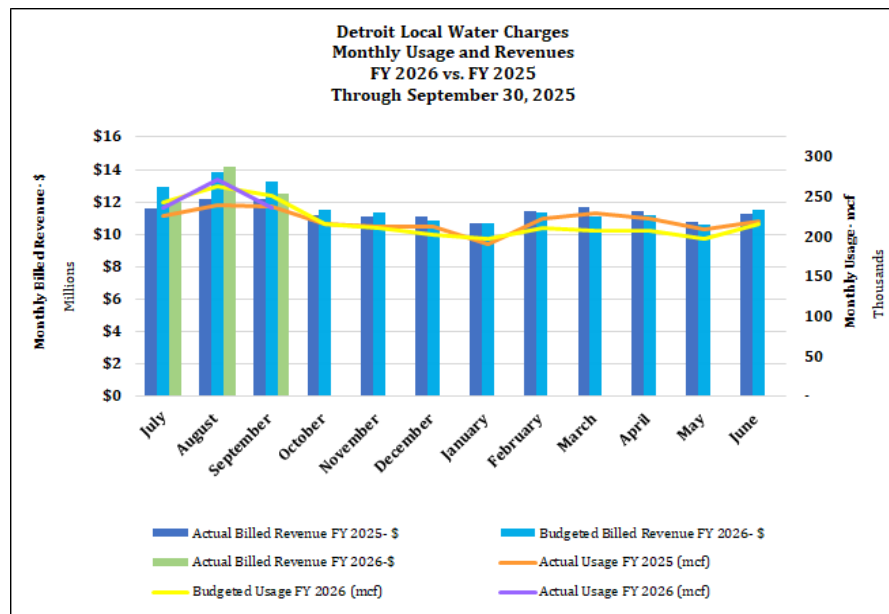


Regional Water System net receipts for the month of September 2025 exceeded required MBO disbursements by \$11.5 million. This equates to a 7% surplus of net monthly receipts over required disbursements or a \$7 million surplus year-to-date.

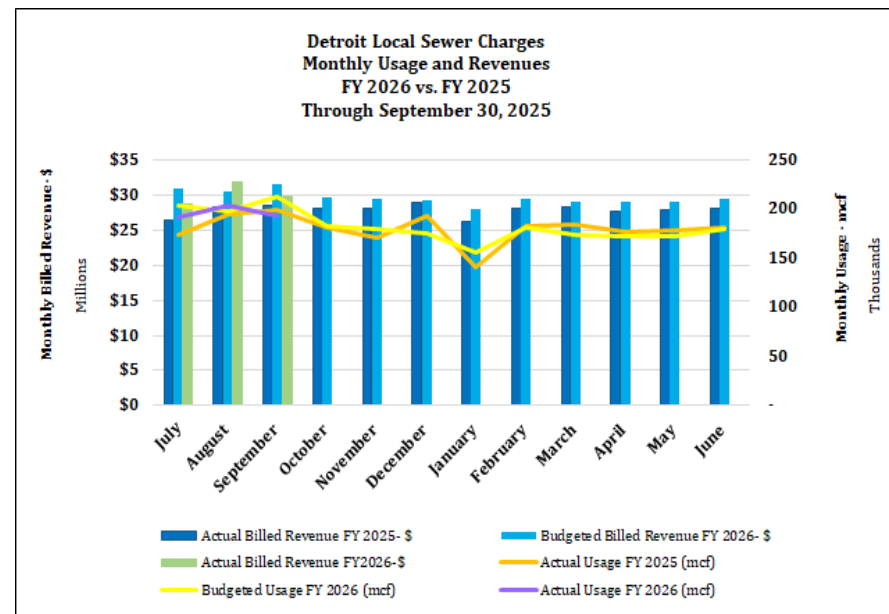


Regional Sewer System net receipts for the month of September 2025 exceeded required MBO disbursements by \$7.8 million. This equates to a 11% surplus of net monthly receipts over required disbursements or a \$13.7 million year-to-date.

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



Detroit Local Water System billed revenues for FY 2026 are at 96.76% of budget and actual usage at 98.41% of budget through September 2025. Billed revenue for FY 2026 is 7.6% higher compared to the same period in FY 2025.



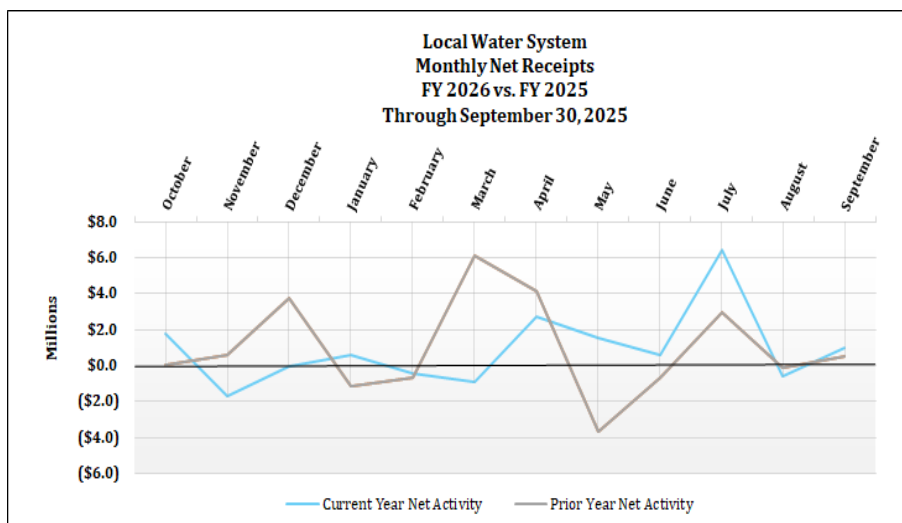
Detroit Local Sewer System billed revenues for FY 2026 are at 97.27% of budget and actual usage at 95.77% of budget through September 2025. Billed revenue for FY 2026 is 8.7% higher compared to the same period in FY 2025.

Financial Viability – DWSD Local System Net Receipts

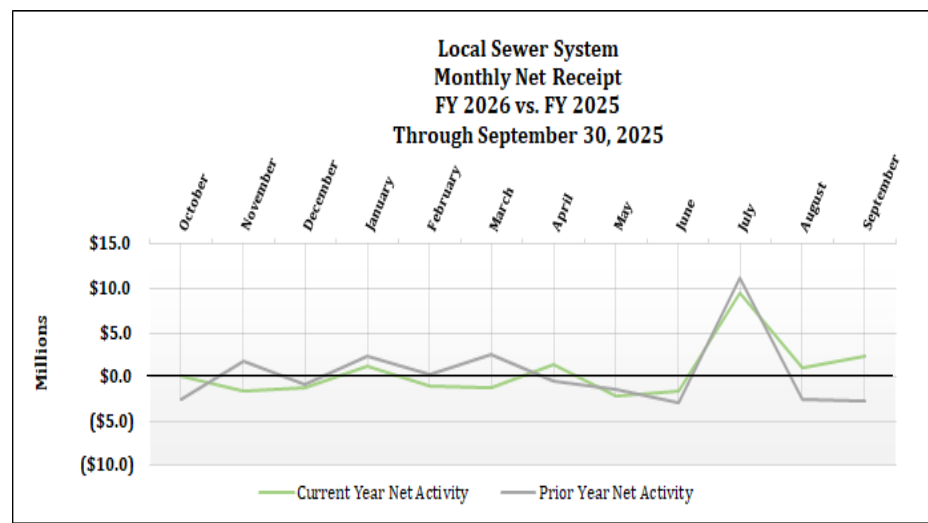
*For the purposes of this reporting, **Net Receipts equals cash collections less Master Bond Ordinance (MBO) disbursements.***

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Cumulative positive net receipts supports long-term financial sustainability.*

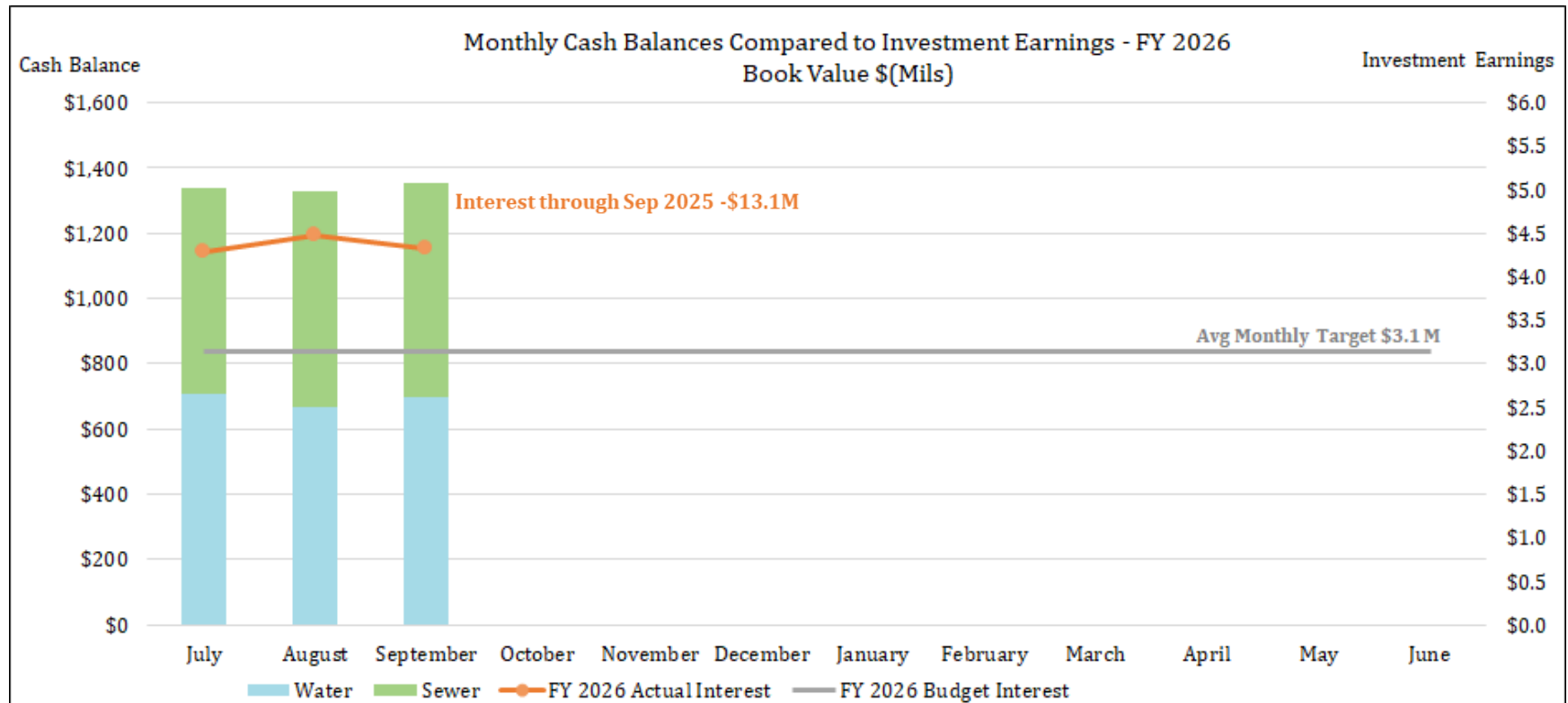


Local Water System net receipts for the month of September 2025 exceeded required MBO disbursements by \$1 million. This equates to a 21% surplus of net monthly receipts over required disbursements or a \$6.8 million surplus year-to-date.




Local Sewer System net receipts for the month of September 2025 exceeded required MBO disbursements by \$2.5 million. This equates to a 17% surplus of net monthly receipts over required disbursements or a \$13 million surplus year-to-date.

Financial Viability – Optimizing Cash Balances

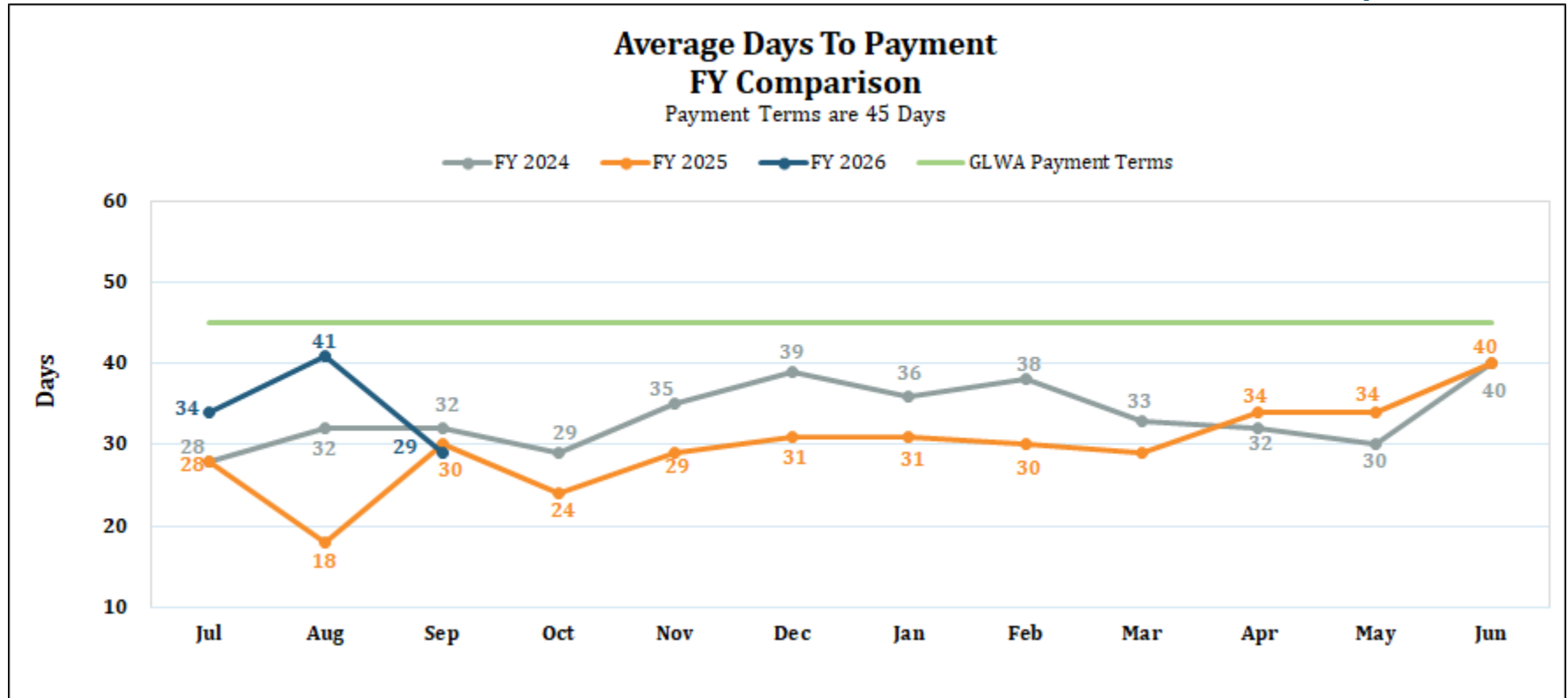


- Cash & investment balances for the water & sewer funds change each month based on Master Bond Ordinance funding, operational requirements, capital funding, and debt payments.
- Investment earnings fluctuate monthly with the cash & investment balances as well as market conditions and investment strategy.
- The average monthly target of \$3.1 million is based on an annual forecast of \$37.7 million for interest earnings.
- For the month of September 2025, GLWA had investment earnings of \$4.3 million and cumulative FY 2026 earnings of \$13.1 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


Green = 30 days or less
Yellow = >30 to <35 days
Red = >35 days

The current 12-month average days to pay is not within the desired target due to vendor noncompliance.




Timely vendor payments support:

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

Twelve-month average days to payment		
FY 2024	FY 2025	FY 2026 (rolling calendar)
34	30	32

The **FY 2026 average days to pay does not align 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 so that accurate and complete invoices are submitted for payment.

A dynamic splash of water in shades of blue, with bubbles and droplets visible, creating a sense of movement and freshness. The water is splashing from the bottom left towards the top right, with a large, central splash that dominates the middle of the frame. The background is a solid light blue, providing a clean contrast for the white text.

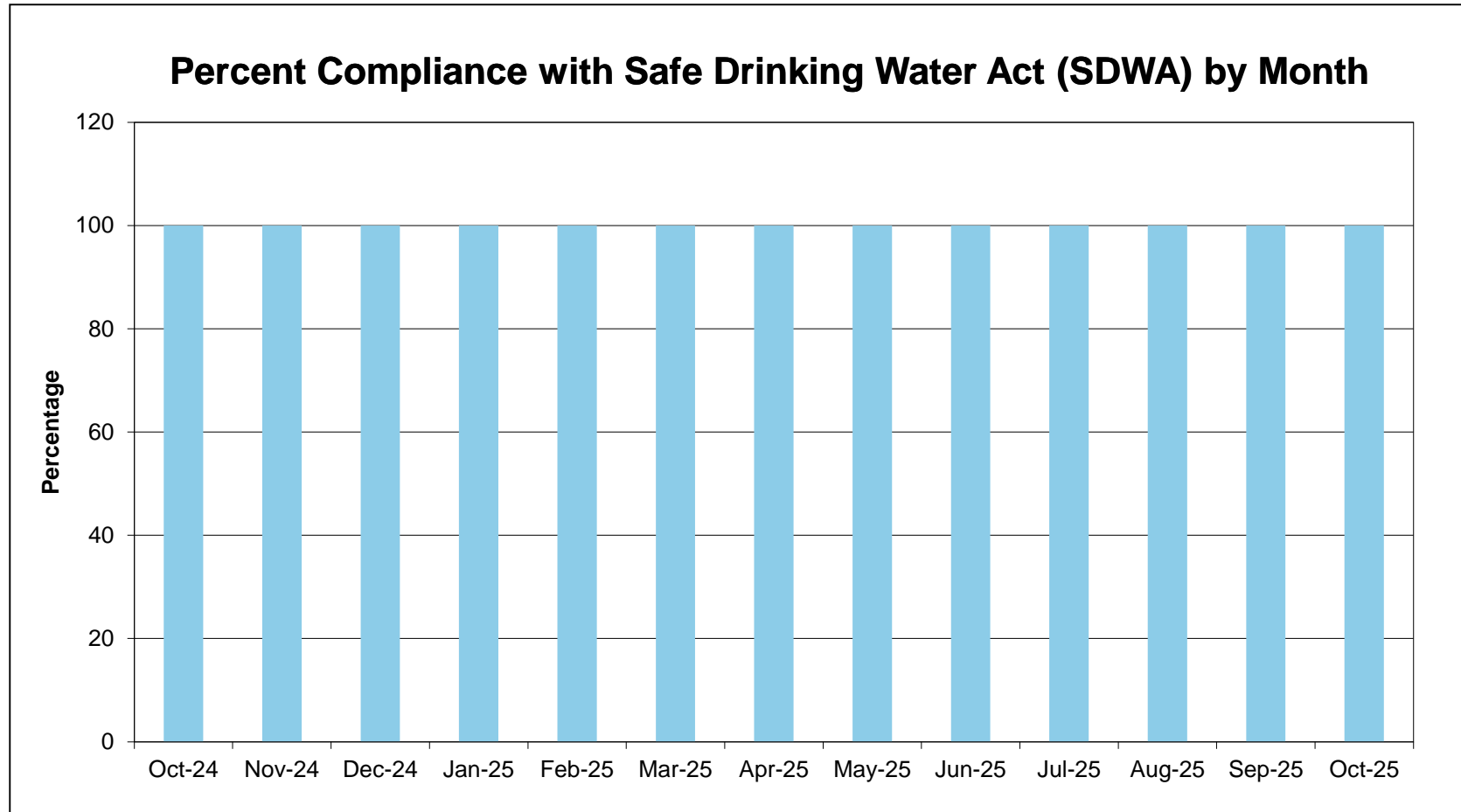
EUM Attribute: Product Quality

Product Quality – SDWA Compliance



GLWA will maintain 100%
compliance with Safe Drinking
Water Act

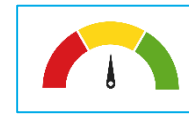
Green = 100% compliance
Red = <100% compliance



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

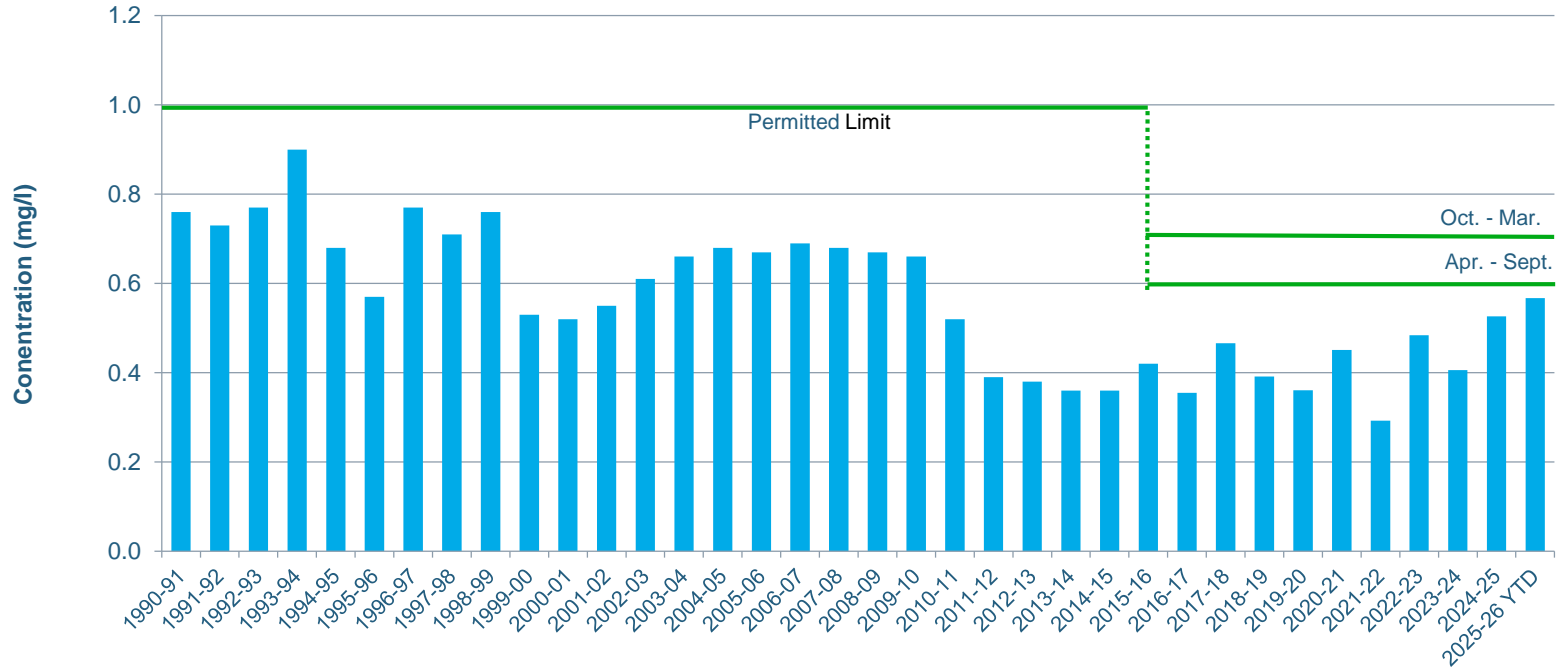


Green= Below 80% of permit levels
Yellow = 80-100% of permit levels
Red = Exceeds permit level

YTD average of 0.57 mg/l is above 80% of regulatory limit. However, the plant is performing better than expected during 2.5 months of record-low flow conditions.

- 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



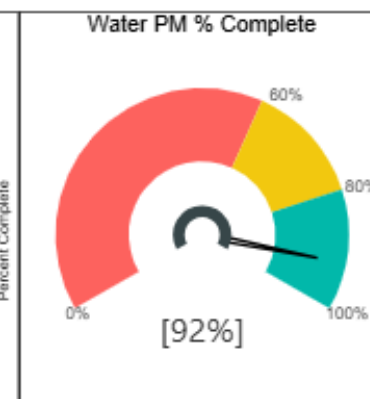
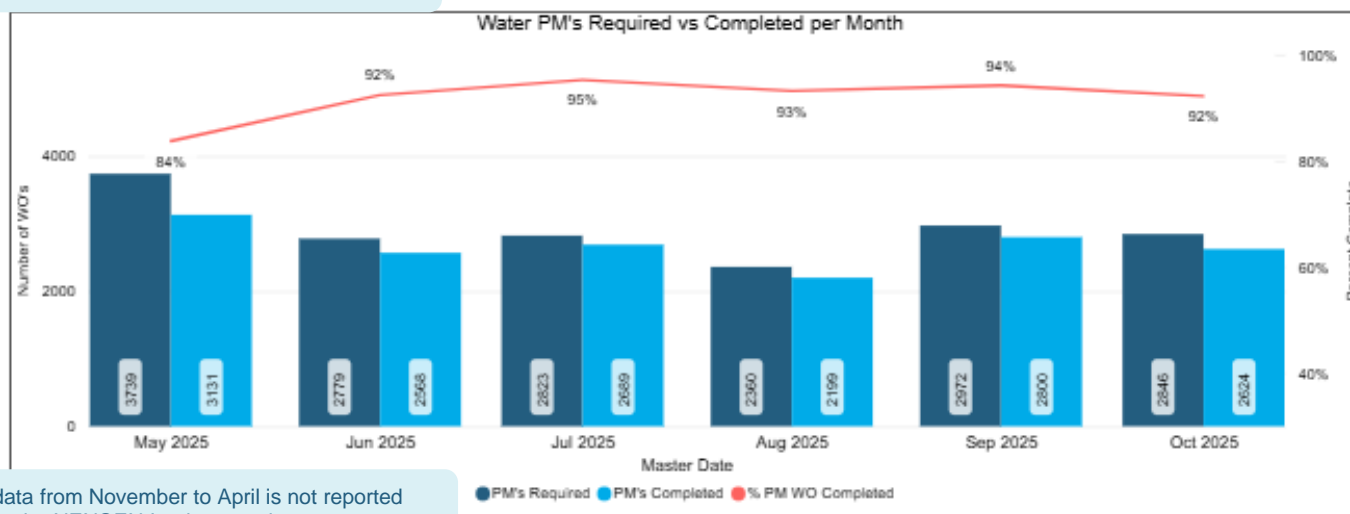
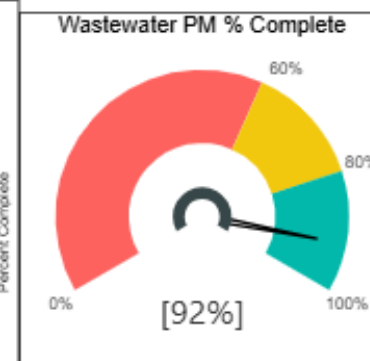
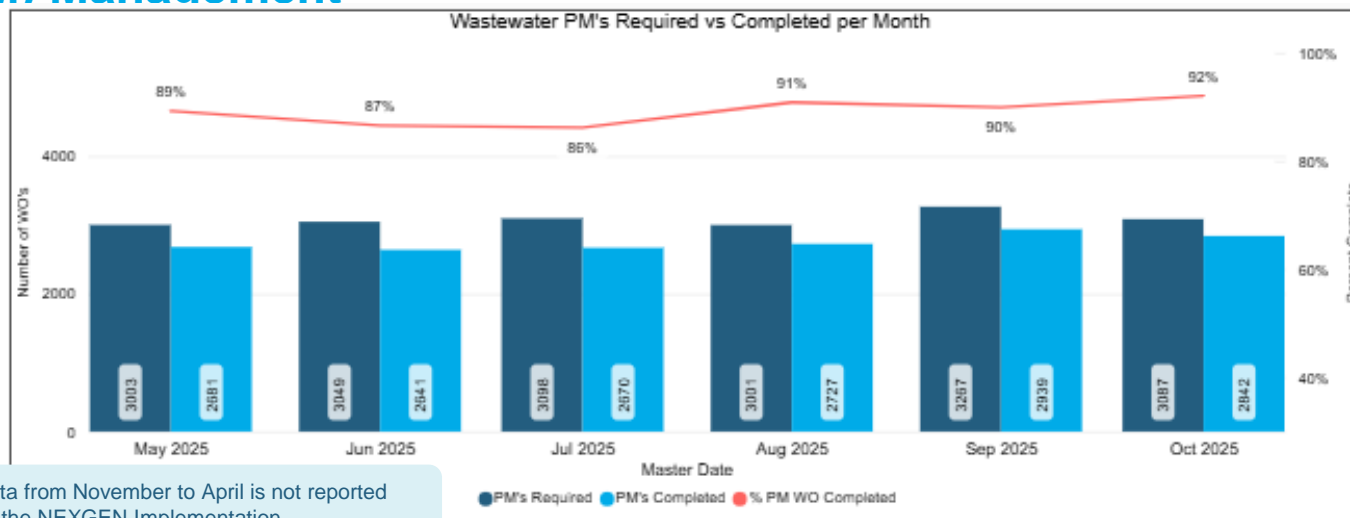
A dynamic splash of water in shades of blue, with bubbles and ripples, serving as the background for the slide.

EUM Attribute: Infrastructure Strategy and Performance

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



Results were in line with targets

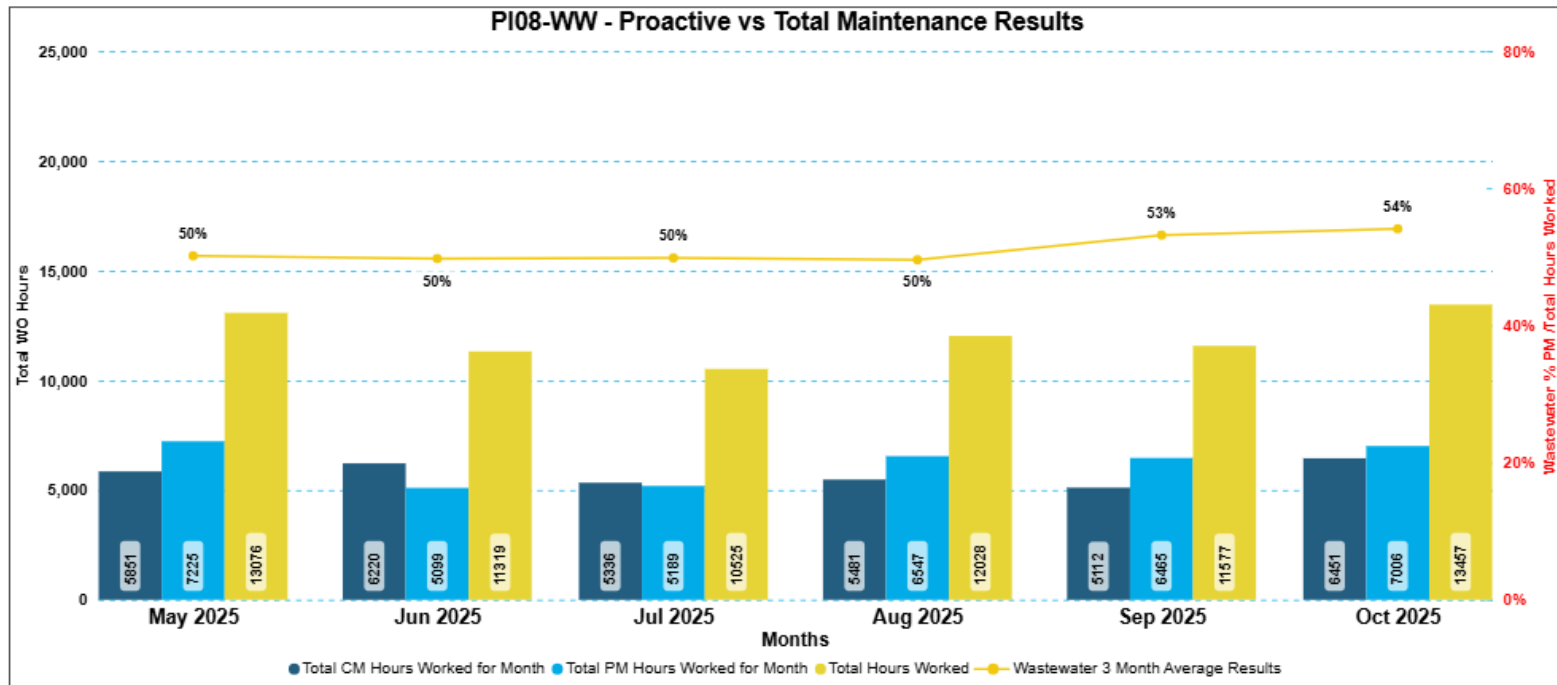


Infrastructure Strategy and Performance – Wastewater Preventative & Corrective Maintenance Management

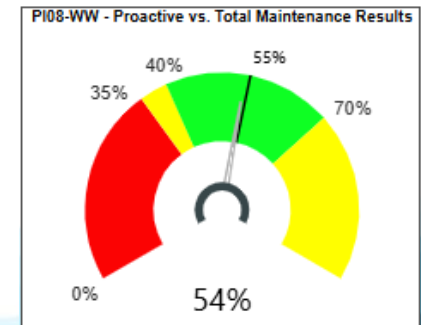


Results were in line with targets

October 2025



PI08: 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.

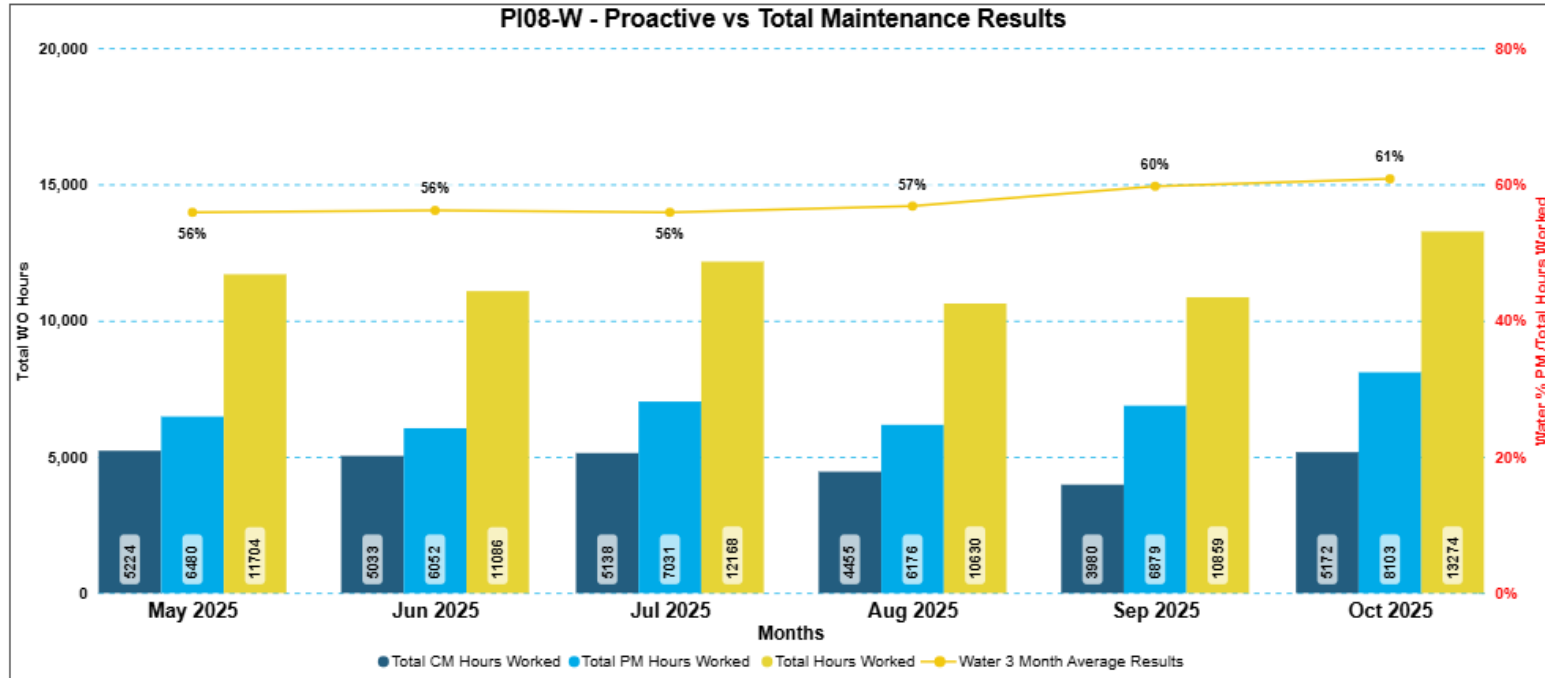


Infrastructure Strategy and Performance – Water Preventative & Corrective Maintenance Management



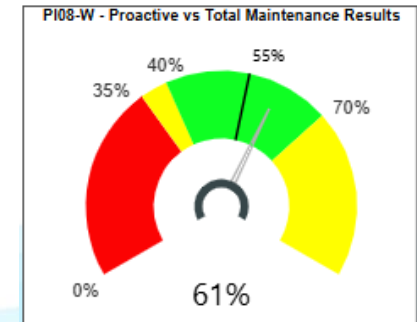
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PM = Preventative Maintenance
CM = Corrective Maintenance



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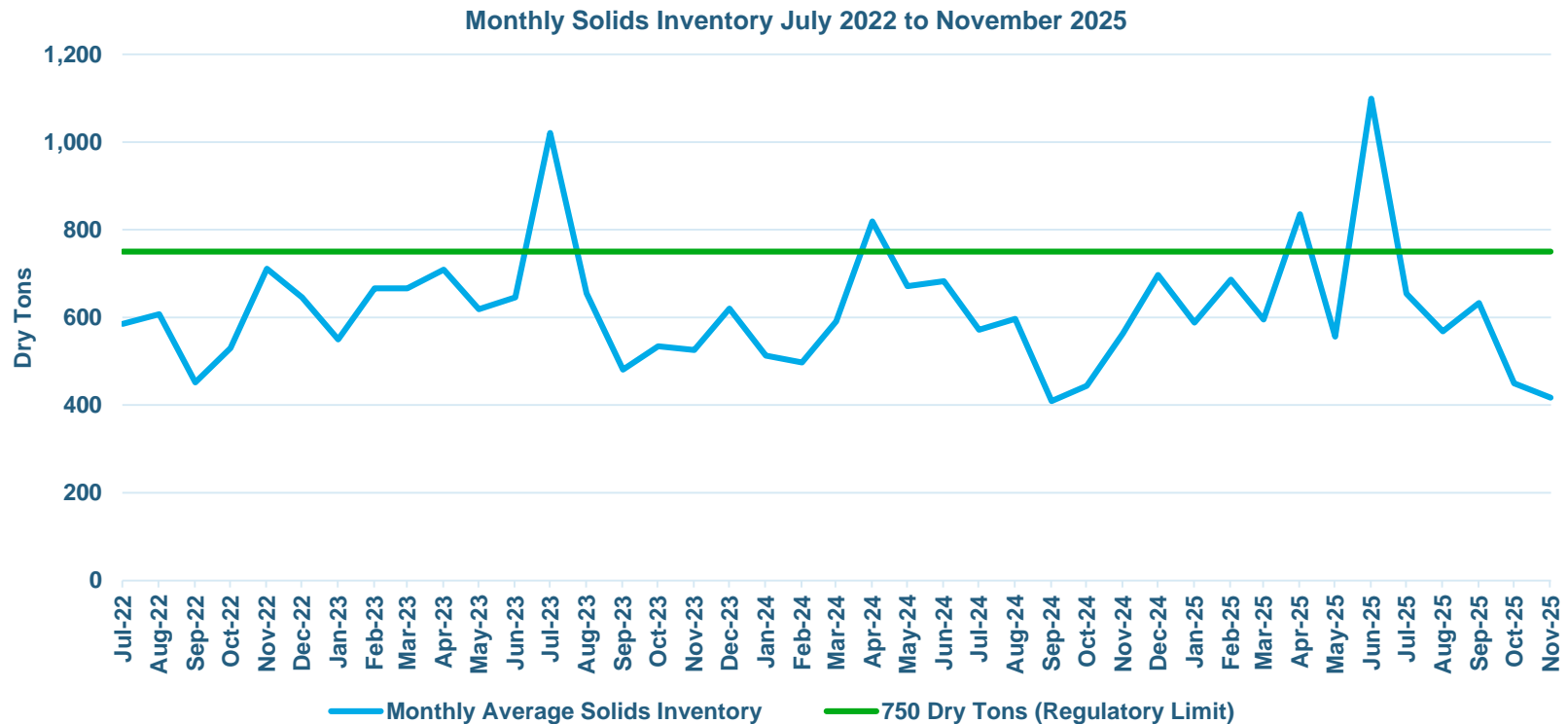
EUM Attribute: Operational Optimization

Operational Optimization Regulatory Compliance – Monthly Solids Inventory



November inventory
average of 415 dry tons
was within regulatory limits.

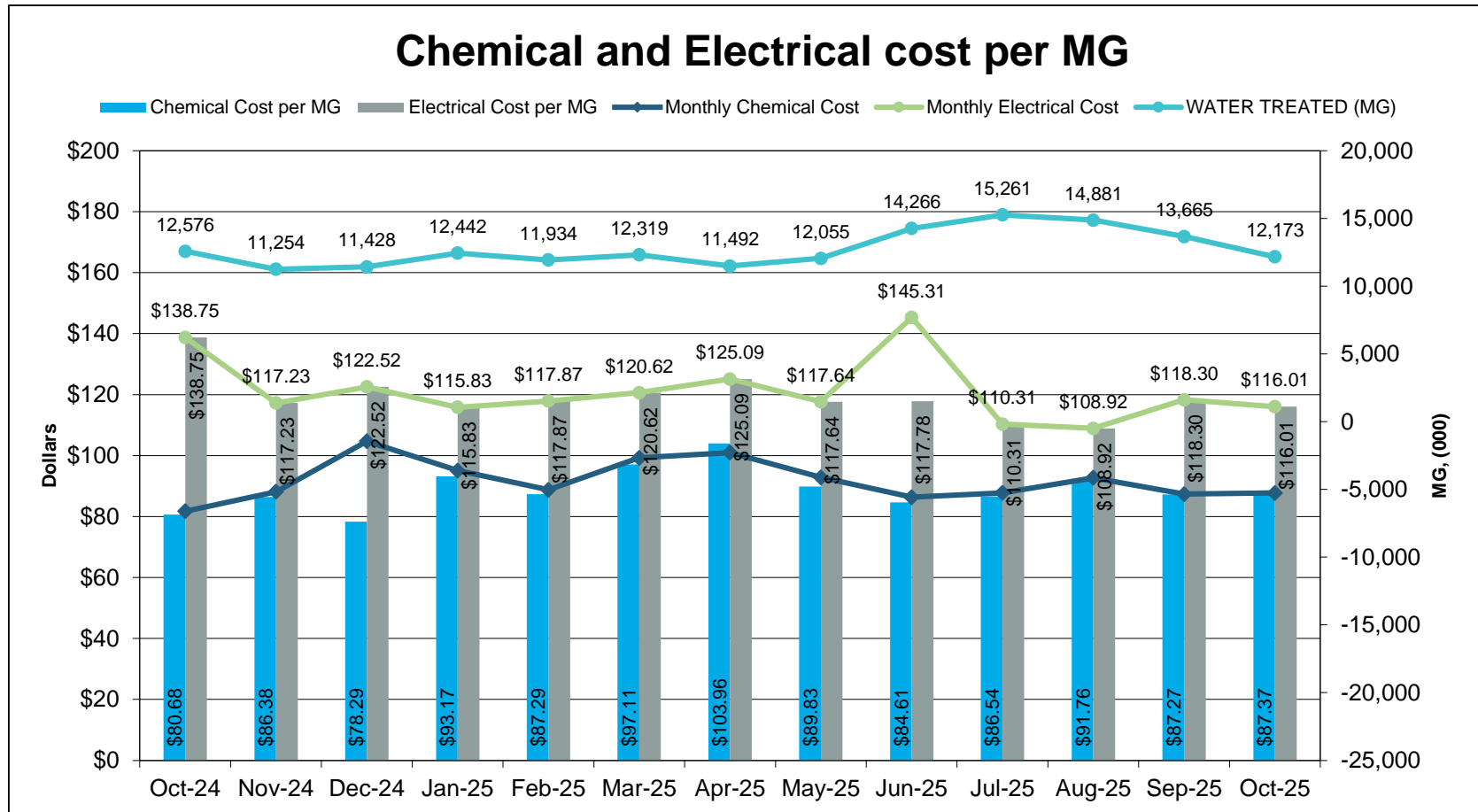
- Solids inventory is a measure of process performance and is regulated by the State.
- Having consistently tracked below 750 dry tons since Oct. 2014 is noteworthy.



Note: No violation occurred in 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

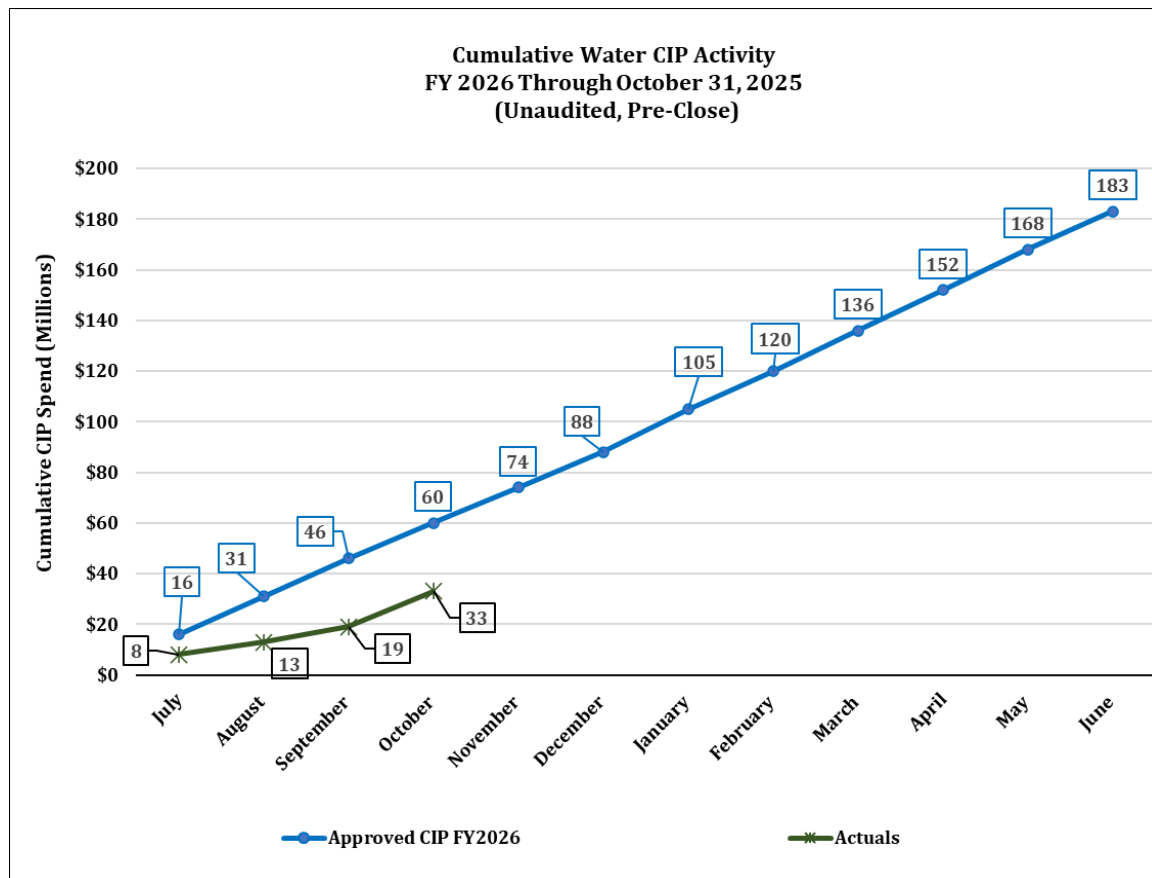


Operational Optimization: Being able to identify ongoing performance improvements for chemical and electrical usage per MG of water pumped is a key metric in managing operational cost. This slide is under development to include tracking of total costs per MG.

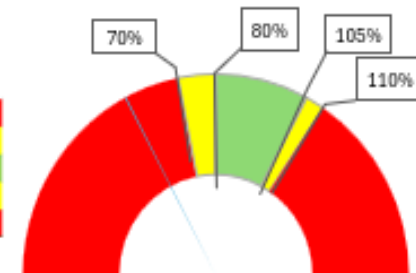
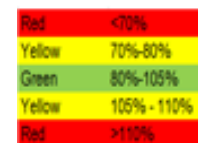
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EUM Attribute: Enterprise Resiliency

Enterprise Resiliency FY 2026 Total Water CIP Spend



Note: The Capital Spend Ratio for FY 2026 CIP is 100%. Of Board Approved



Current Status:

The water system incurred \$33 million of CIP costs through October 2025.

This is 55% of the FY 2026 monthly Board Approved CIP2026-2030.

Major Underspend:

111006 Lake Huron WTP, Filter Instrumentation and Raw Water Flow Metering Improvements- Phase II Execution Delay

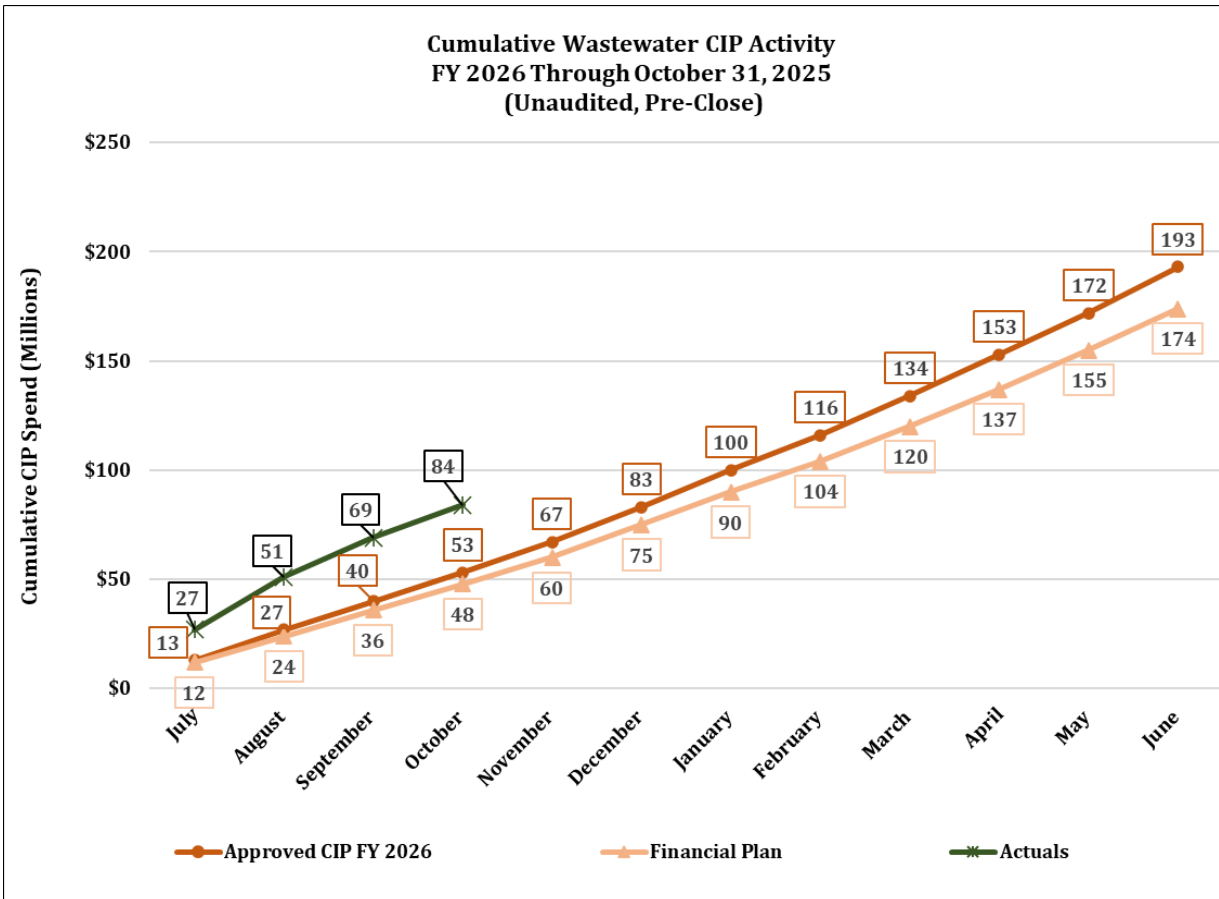
170602 36-inch 24 Mile Road Transmission Main Condition Assessment- Early Finish

170603: 84"/72" Transmission Main Condition Assessment - Postponed to FY29

111001- Lake Huron WTP, Low-Lift, High Lift and Filter Backwash Pumping System Improvements - Delayed Construction Phase

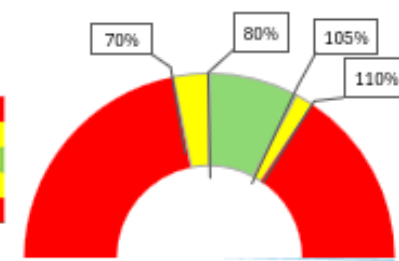
Enterprise Resiliency

FY 2026 Total Wastewater CIP Spend



Note: Capital Spend Ratio for FY 2026 CIP is 90%. of Board Approved
Financial Plan=Board approved CIP X CSR

Red	<70%
Yellow	70%-80%
Green	80%-105%
Yellow	105% - 110%
Red	>110%



Current Status:

The wastewater system incurred \$84 million of CIP costs through October 2025.

This is 175% of the FY 2026 monthly *Approved with CSR CIP2026-2030*.

Major Overspend:

222001 Oakwood District Intercommunity Relief Sewer Modification at Oakwood District- (SRF) Ahead of Schedule

232005 Freud Pump Station Improvements (SRF) – Reclassification of CIP

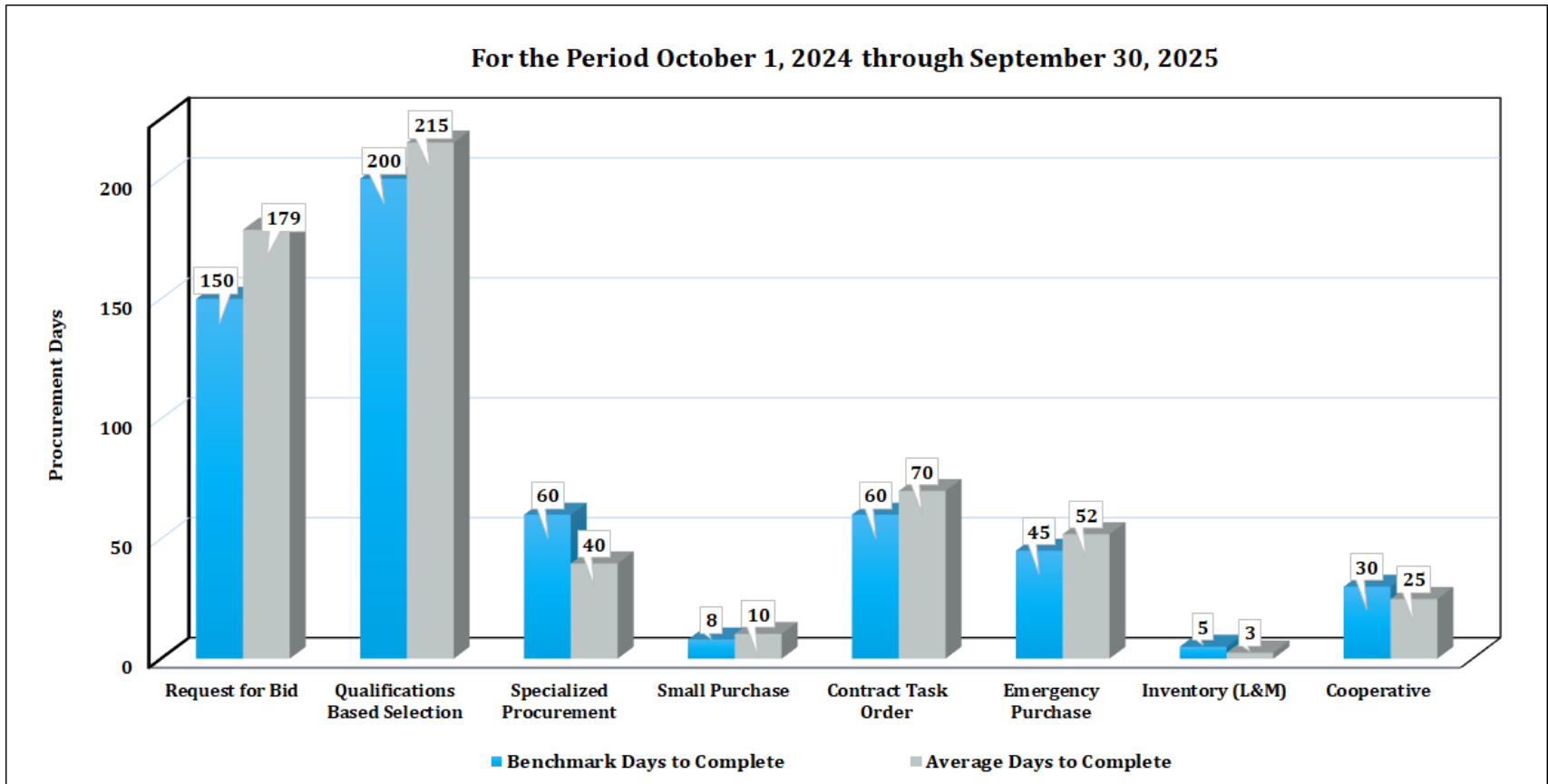
260209 Sewer Rehabilitation and Repair – Ahead of Schedule - Anticipated Early Finish

211007 WRRF PS #2 Bar Rack

Replacements and Grit Collection System Improvements – Accelerated Spending

Enterprise Resiliency – Procurement Cycle

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



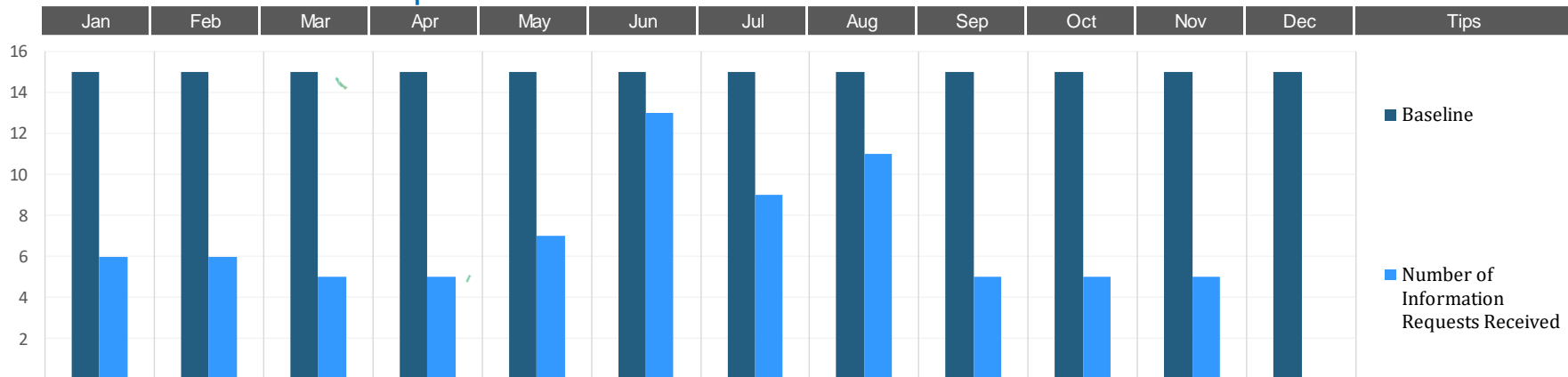
- Average Days represents the last twelve-month period. During that time, GLWA awarded \$698.6 million and completed 4,953 purchase requests.
- Procurement is now tracking Cooperative Agreements which streamline purchasing processes, reduce cost, and improve procurement outcomes.
- The transition to Workday did cause some of the Request for Bid's and Qualifications Based Selection's to exceed the Benchmark Day's goal. The increased timeframes did not negatively influence the execution of the contracts or the success of the project.

Enterprise Resiliency – General Counsel Information Requests Received



Green= <15 requests
Yellow = 15 requests
Red = >15 requests

General Counsel Information Request Received



Expenses	Jan	Feb	Mar	Apr	May	Jun*	Jul	Aug	Sep	Oct	Nov	Dec	Total	Trend
Baseline	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	180.00	
Number of Information Requests Received	6.00	6.00	5.00	5.00	7.00	13.00	9.00	11.00	5.00	5.00	5.00		77.00	

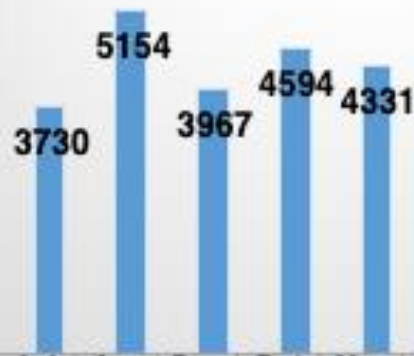
One of the measures of organizational transparency is access to information. GLWA maintains many avenues of informal information access, including through its website. To the extent the information is readily available, the Office of the General Counsel should receive fewer FOIA requests over time.

Enterprise Resiliency – Security & Integrity



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

Patrols



	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26
Report/Patrol Ratio	2.4%	2.0%	1.9%	1.9%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Patrols	3730	5154	3967	4594	4331							

- 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

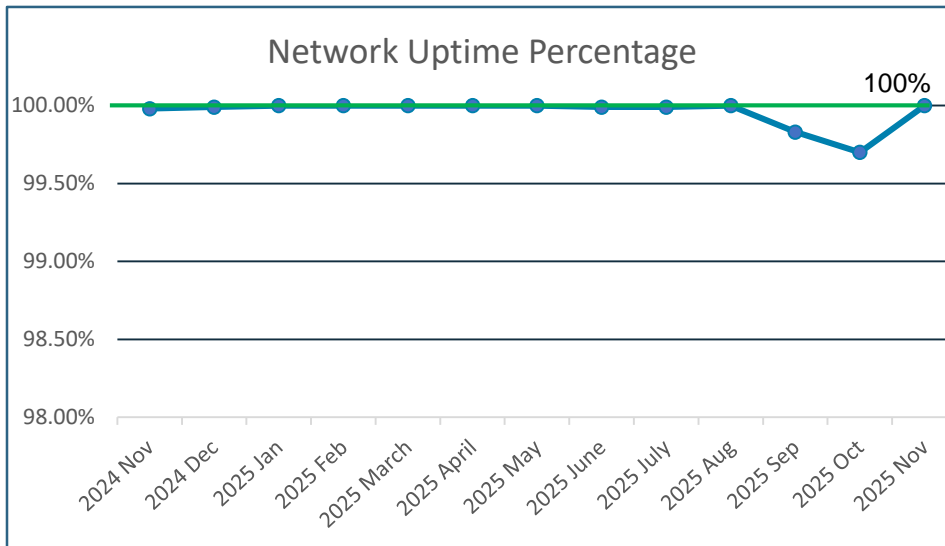


- Security reports are an indication of the effectiveness of security programs (less is better).

Enterprise Resiliency – Information Technology



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

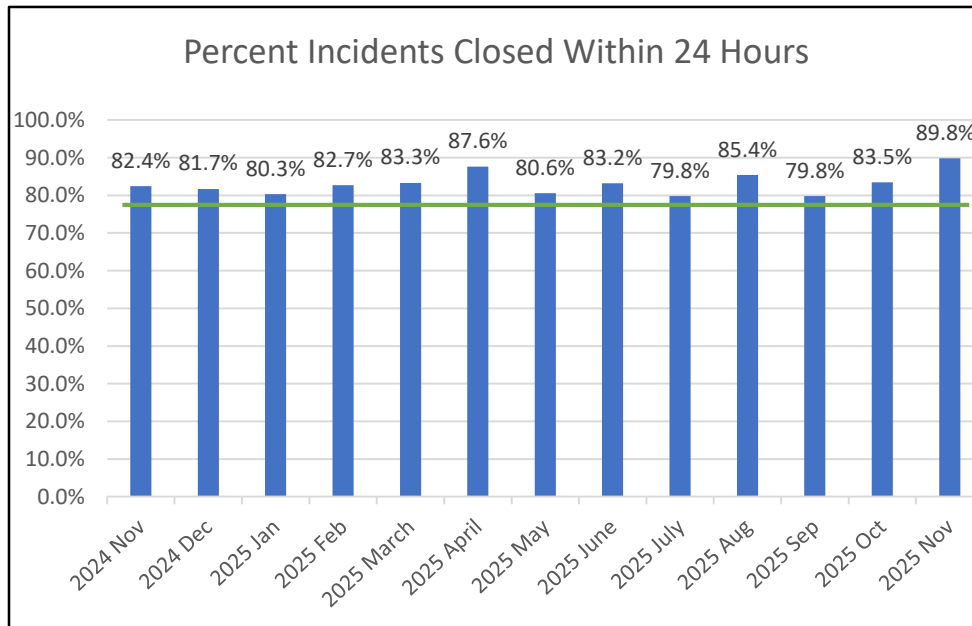


- GLWA has 42 monitored, network-connected sites, including offices, plants, pump stations, and other facilities.
- Network connectivity allows employees to access the applications needed to do their work and connects plants and pump stations to the intranet to report operational data

Enterprise Resiliency – Information Technology



Green= 78-100%
Yellow = 68-77%
Red = <68%

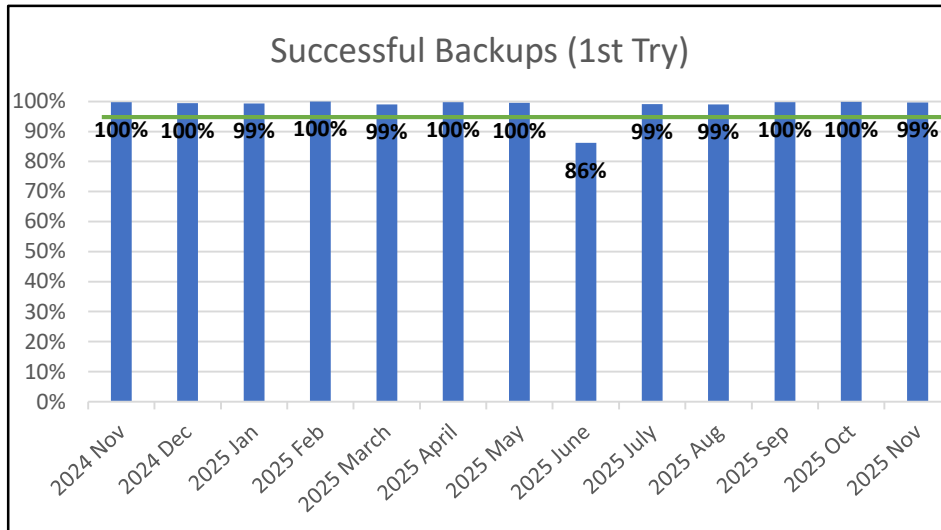


- An Incident is a technology issue that is preventing an employee from performing some part of their job duties
- Quick resolution of incidents increases employee productivity.
- The industry standard for 24-hour resolution is 68%

Enterprise Resiliency – Information Technology



Green= 95-100% of 1st attempts
Yellow = 90-<95% of 1st attempts
Red = <90% of 1st attempts

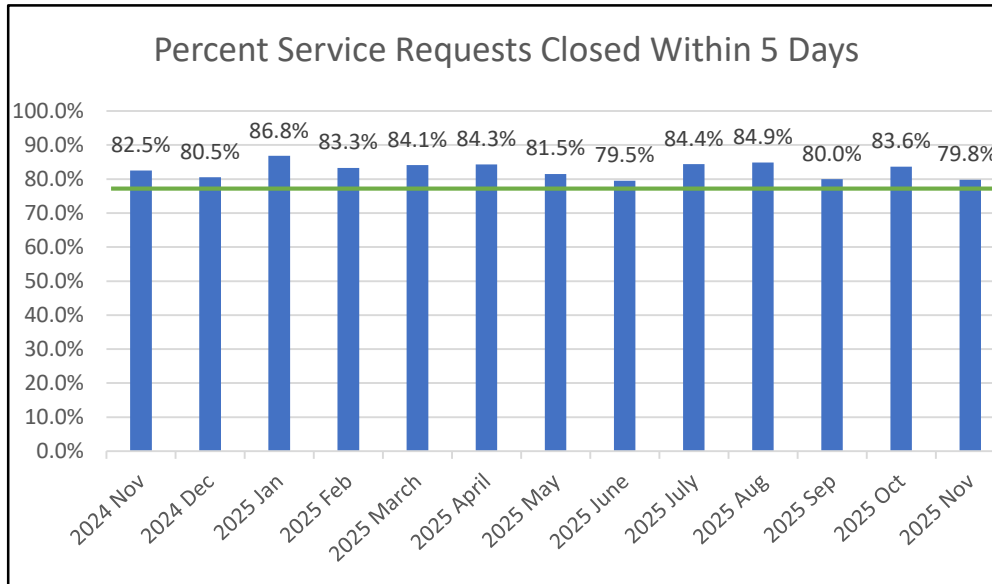


- Backups ensure that GLWA's information is safe in case of unexpected disruptions.
- Successfully backing up on the first try streamlines operations and frees up resources for other tasks.

Enterprise Resiliency – Information Technology



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

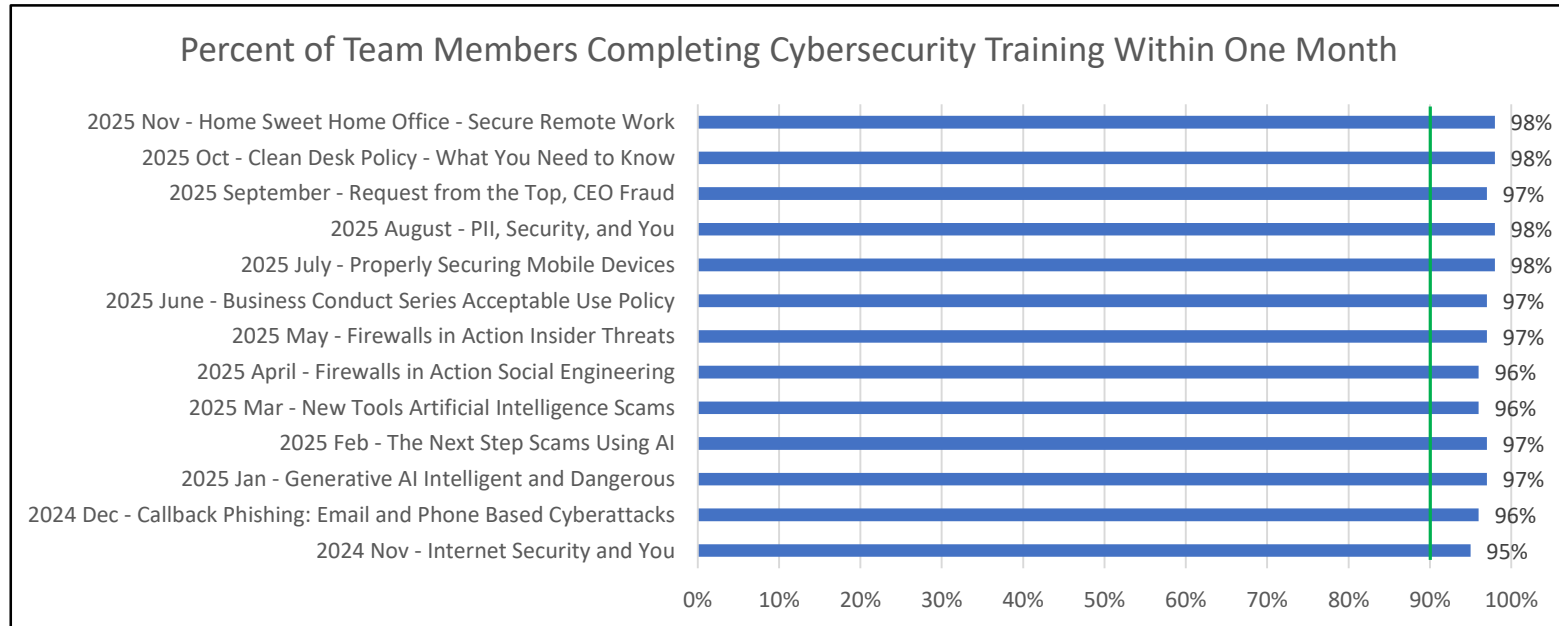


- A service request is a request for IT work that is not preventing an employee from performing their work.
- Timely fulfilment of service requests ensure that employees have the technology resources needed to do their jobs and increases job satisfaction.

Enterprise Resiliency – Information Technology



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.

23

FY 2026: Longest number of days without
a GLWA team member having
an OSHA recordable accident event.

29

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

A dynamic splash of water in shades of blue, with bubbles and droplets visible, creating a sense of movement and freshness. The water is splashing from the bottom left towards the top right, with a large, central splash that dominates the middle of the frame. The background is a solid light blue, providing a clean contrast for the white text.

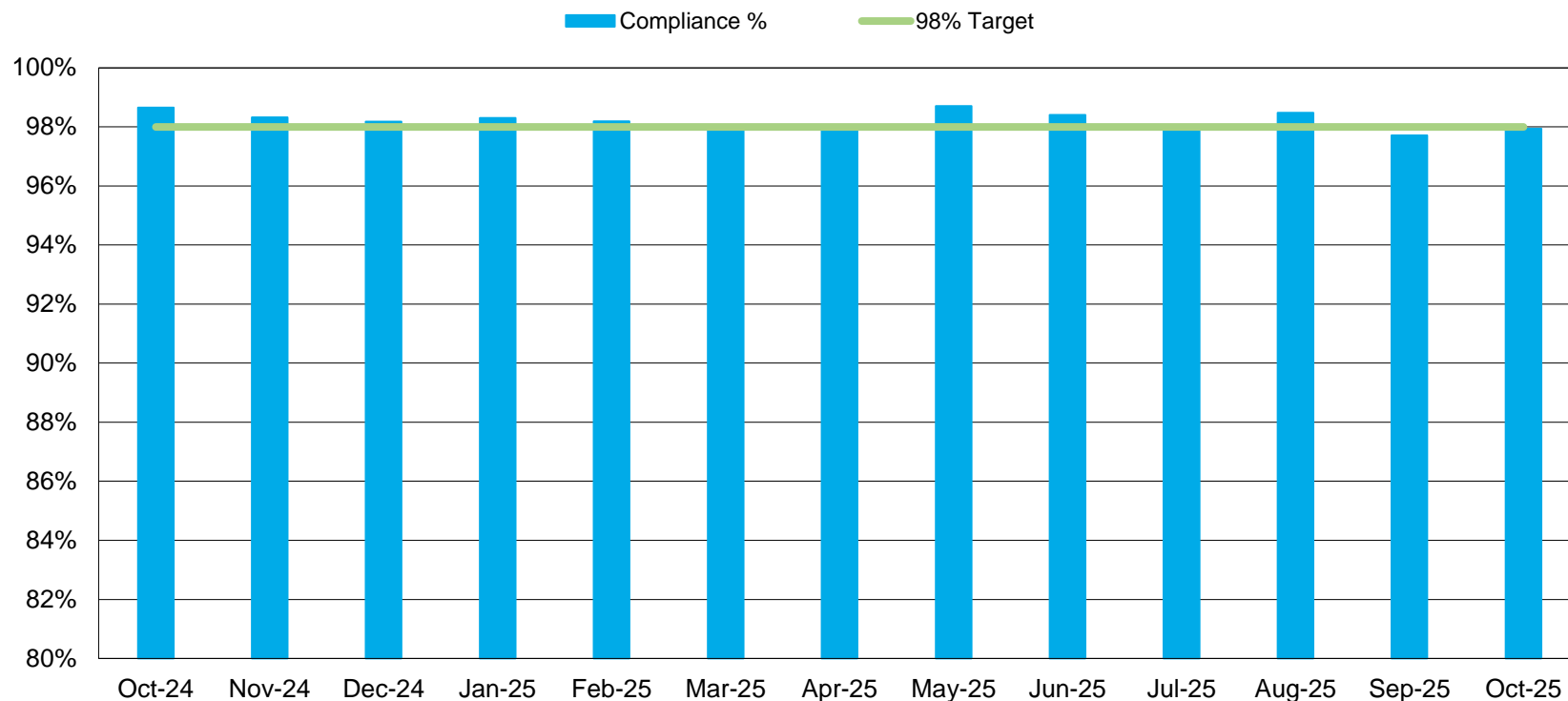
EUM Attribute: Customer Satisfaction

Customer Satisfaction – Water & Field Services



September and October 2025 compliance number is low due to 14 Mile Road transmission main break.

Customer Pressure Compliance %

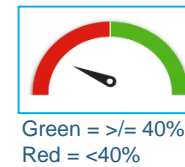


Operational Resiliency: To exceed customer compliance by being greater than 98% of contractual pressures.

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EUM Attribute: Community Sustainability

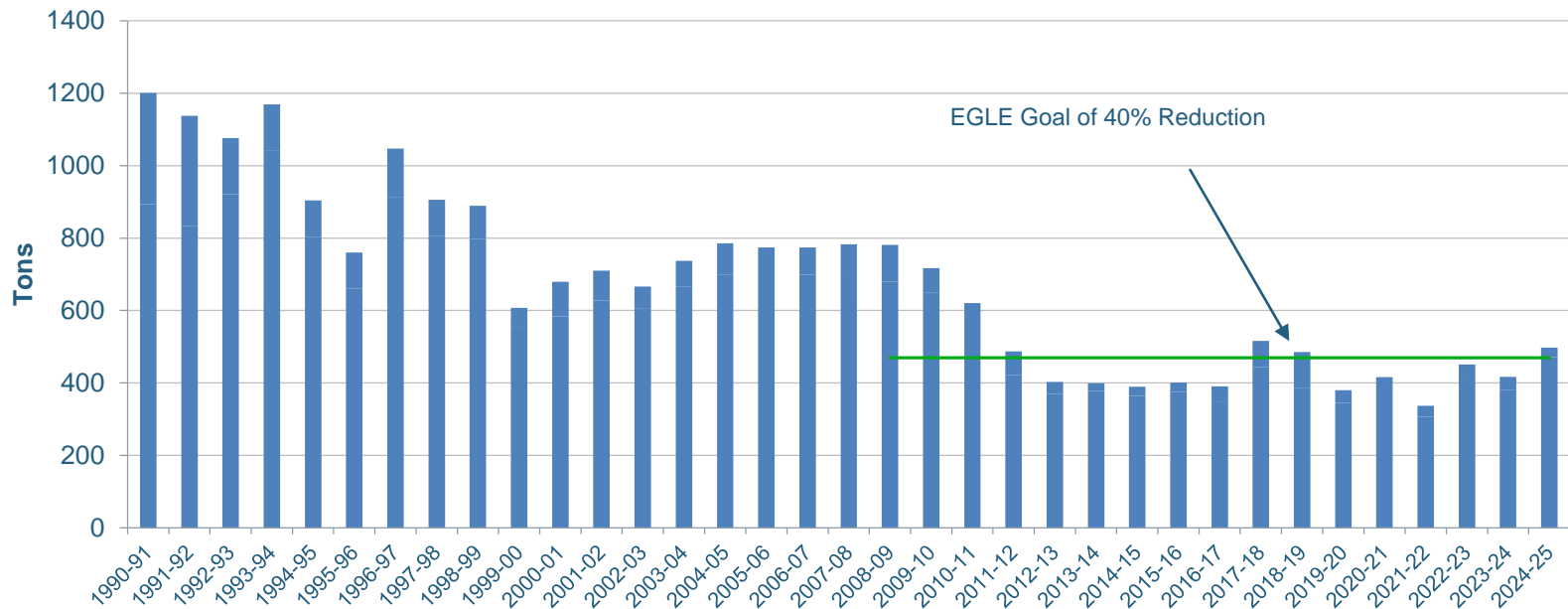
Community Sustainability – Watershed Health



The 2024-25 loading exceeded the goal by 28 tons (6%) 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



A dynamic splash of water in shades of blue, with bubbles and droplets visible, creating a sense of movement and freshness. The water is captured in mid-air, with some droplets frozen in time.

EUM Attribute: Water Resource Sustainability

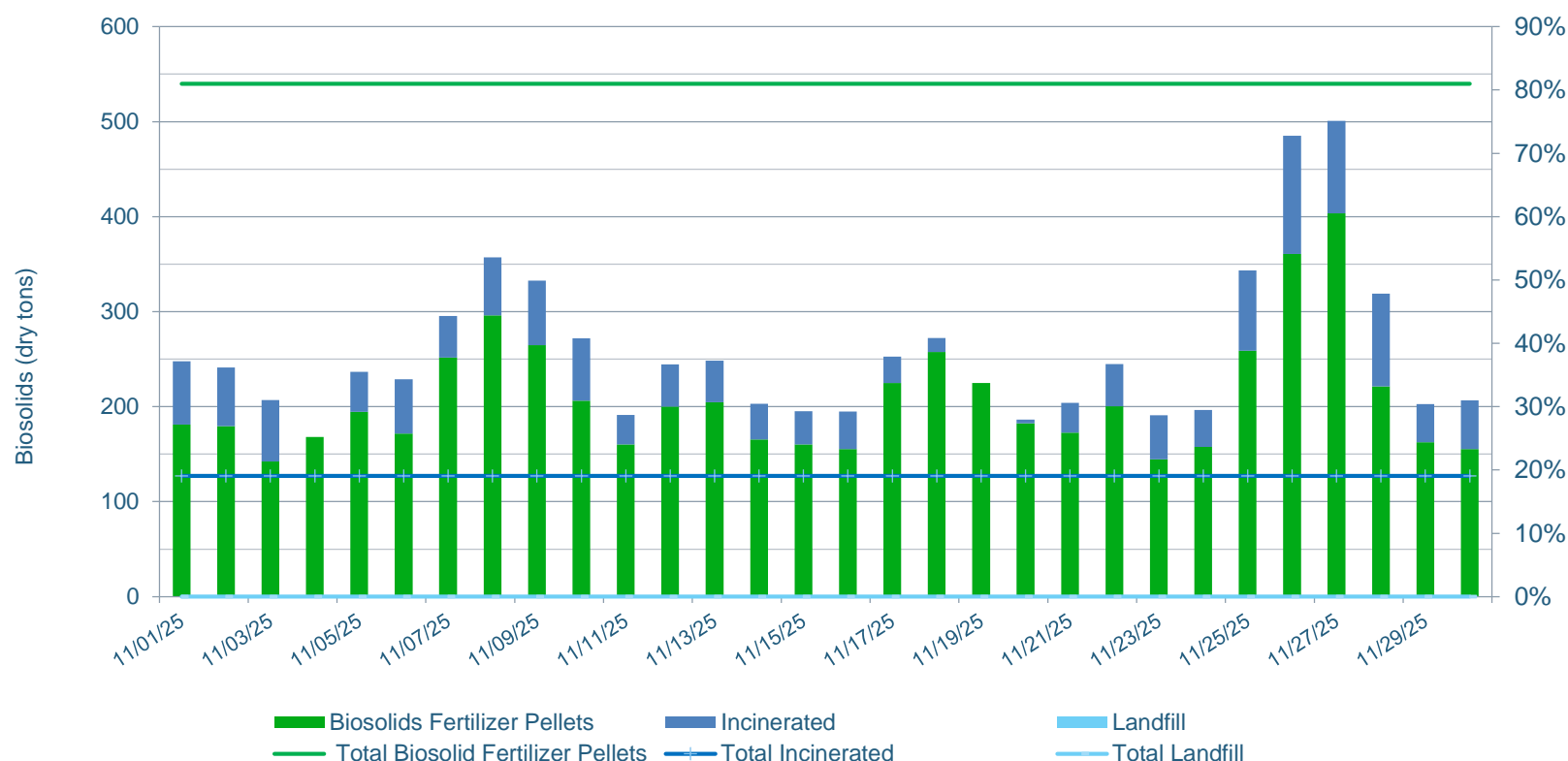
Water Resource Sustainability – Biosolids Handling by Method



Green = 10% or less sent to landfill
Red = >10% sent to landfill

Biosolids Dryer Facility handled 81% of solids production for November 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.



A dynamic splash of water in shades of blue, with bubbles and droplets visible, creating a sense of movement and freshness.

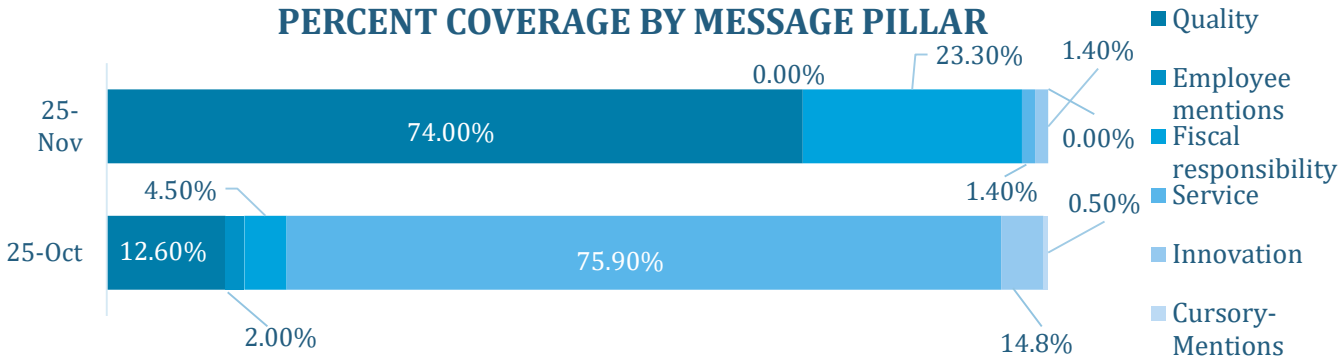
EUM Attribute:

Stakeholder Understanding and Support

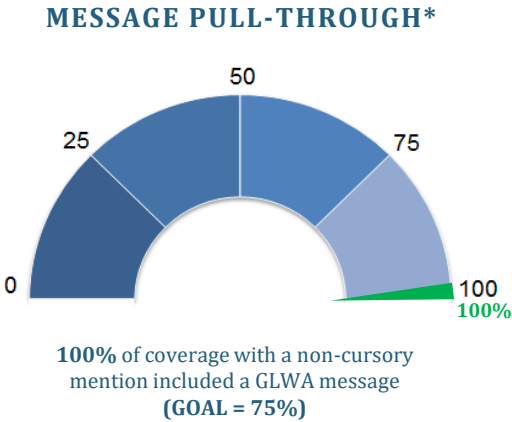
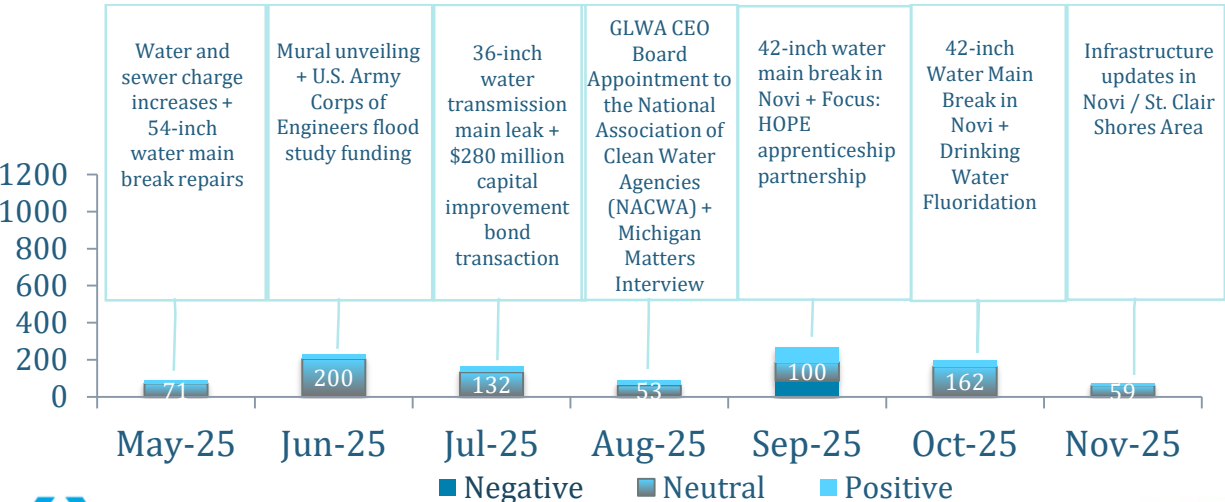
TRADITIONAL MEDIA SUMMARY



Traditional media coverage was mostly neutral with an increase in positive news. Most coverage was around infrastructure updates along 14 Mile Road in Novi. It included excellent message pull-through around GLWA’s plans to replace a portion of GLWA’s 42-inch transmission main Road in Oakland County. Additionally, there was strong message pull-through around GLWA replacing one of the primary water meters near Pennsylvania Road and Huron River Drive in Wayne County. This month’s media coverage yielded 100 percent of stories with non-cursory mentions containing a GLWA quote or message.



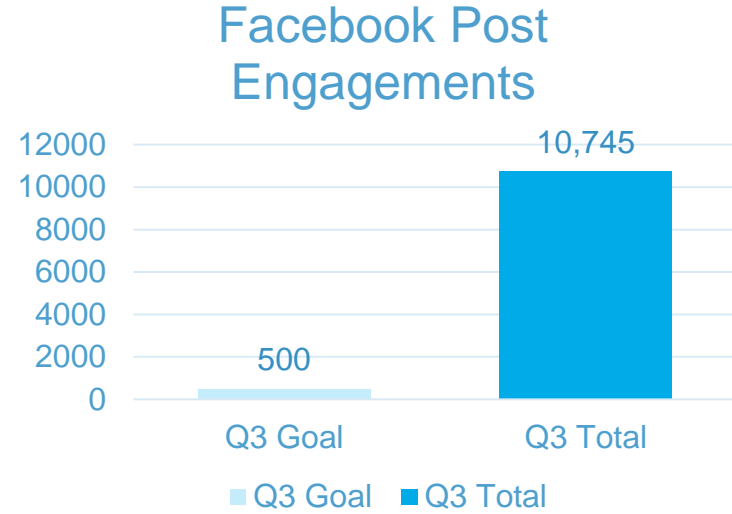
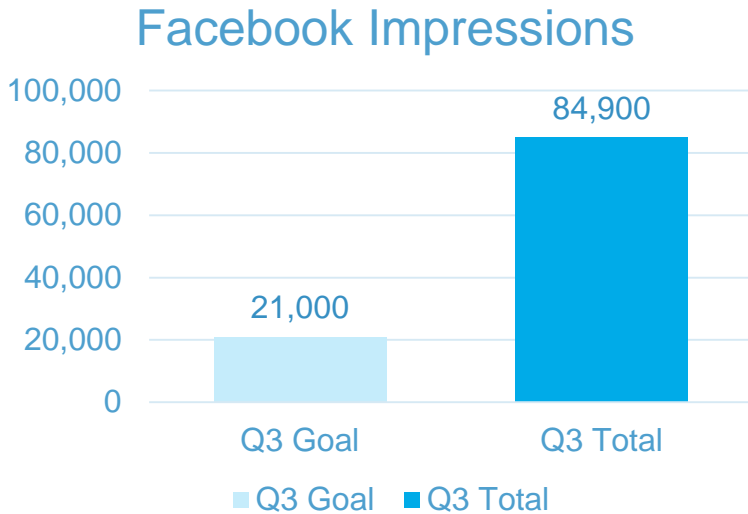
MEDIA MENTIONS + SENTIMENT



MEDIA VOLUME: 73
CURSORY OR FLINT MENTIONS: 0
INCLUDED GLWA MESSAGE: 73

**Message pull-through includes quotes or comments from a GLWA spokesperson, a quote from a GLWA press release or underlying theme of GLWA providing safe and clean water.

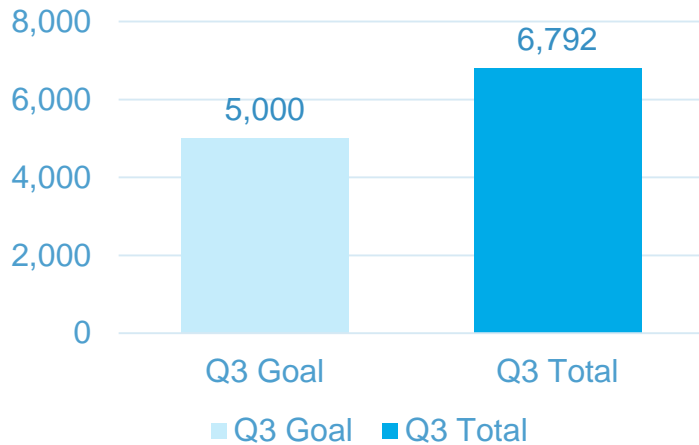
FACEBOOK Q3 2025 REVIEW



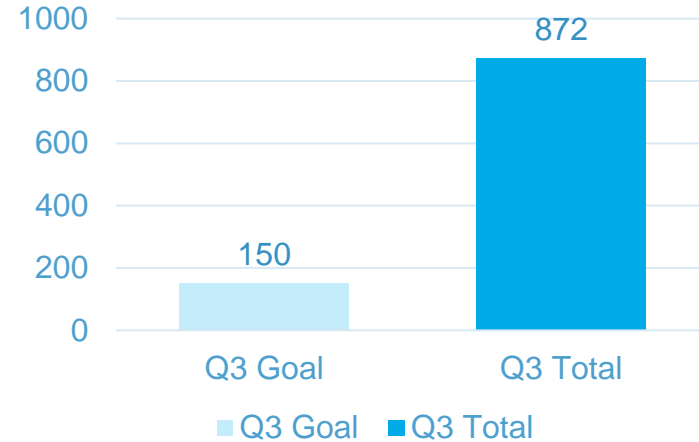
- 💧 This quarter, posts around the two emergency repair periods performed best. They saw increased shares between residents, Member Partners, and elected officials.
- 💧 Top content includes the **42-inch transmission main break**, **Councilmember Tate's Water Works Park tour**, the **36-inch leak in Chesterfield Township**, and **internship posts**.

X Q3 2025 REVIEW

X Impressions



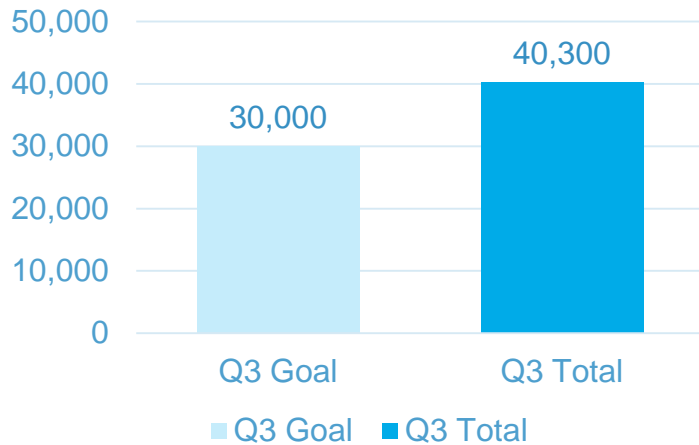
X Engagements



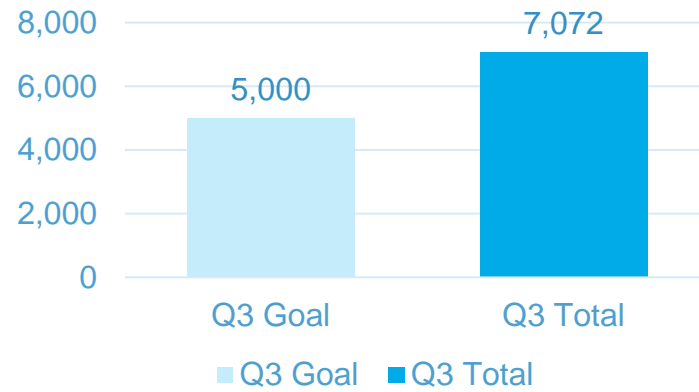
- 💧 This quarter's X content includes shared media content, press releases, and crisis communication. In this sense, this quarter saw more information sharing and news than creative posts and brand awareness.
- 💧 Top content includes posts around the **Michigan Matters segment, the 42-inch water transmission main break, and project updates for the 96-inch work.**

LINKEDIN Q3 2025 REVIEW

LinkedIn Impressions



LinkedIn Page Engagement



- 💧 GLWA's LinkedIn profile has helped the organization to align with partner orgs and prominent voices in the industry by sharing cross-functional content and thought leadership.
- 💧 Top content includes conversations around **GLWA's internship program**, **new GLWA leadership roles in the water sector**, and **team member engagement**.

A dynamic splash of water in shades of blue, with bubbles and ripples, creating a sense of movement and freshness. The water is captured mid-splash, with some droplets frozen in time.

EUM Attribute:

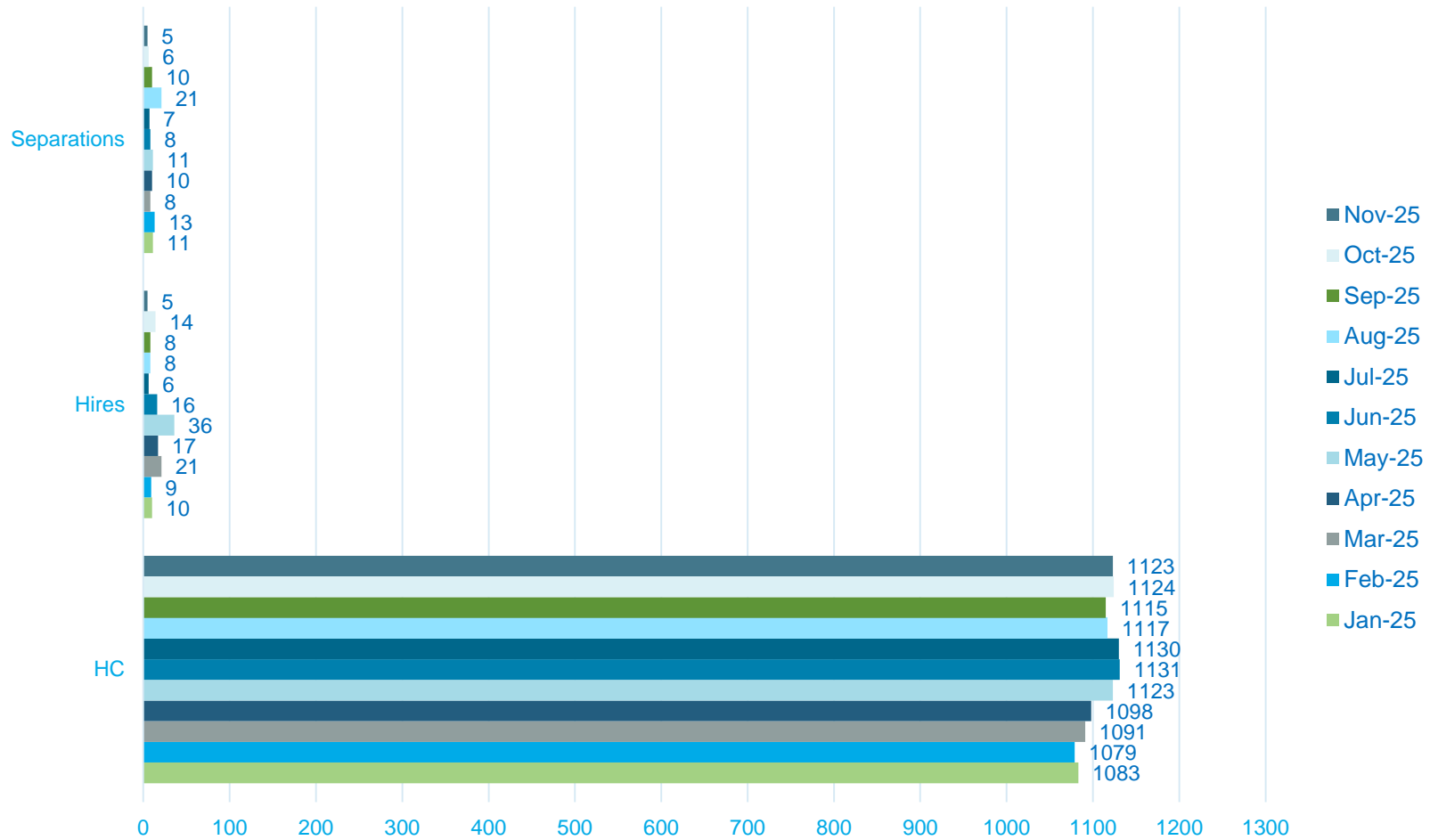
Employee and Leadership Development

Organizational Development



Green = +5 to -3 FTE
Yellow = -3 to -5 FTE
Red = >-5 FTE

GLWA Jan 2025 - November 2025 Headcount, Hires, & Separations

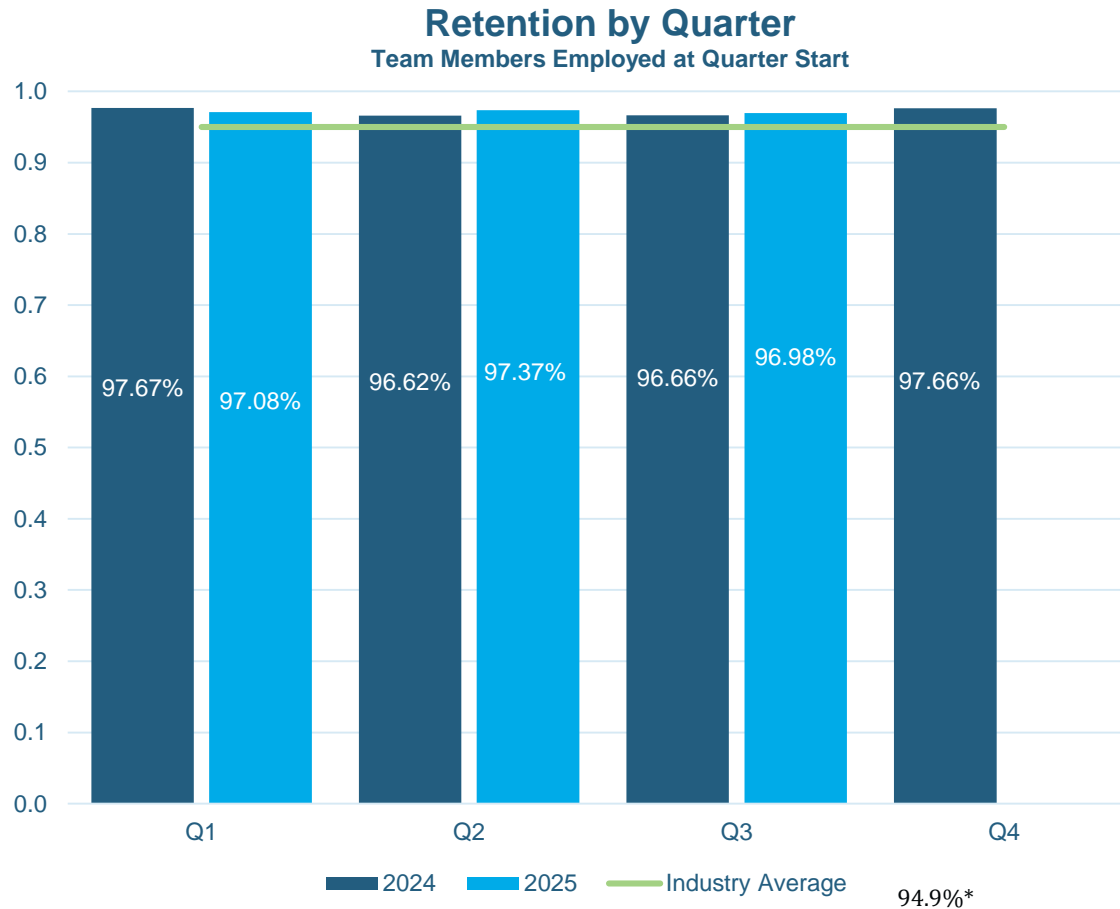


**Headcount is as of month end*

Organizational Development



Green = >94.9%
Yellow = 94.9%
Red = >94.9%



Above retention rates are reflected in percentages

- 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."