

The background of the slide is a photograph of a meeting. Several people are seated around a table, looking at documents. A hand in the foreground holds a dark mug with the words "Metropolitan District" printed on it. The entire image is covered with a semi-transparent blue filter.

Welcome

Commission Meeting
August 27, 2026

Madison Metropolitan
Sewerage District





Consent Calendar

Madison Metropolitan
Sewerage District

Project Update: 2025 District Sampling and Analysis of Influent, Effluent, and Biosolids for PFAS Compounds

Commission Meeting
August 27, 2026

Madison Metropolitan
Sewerage District

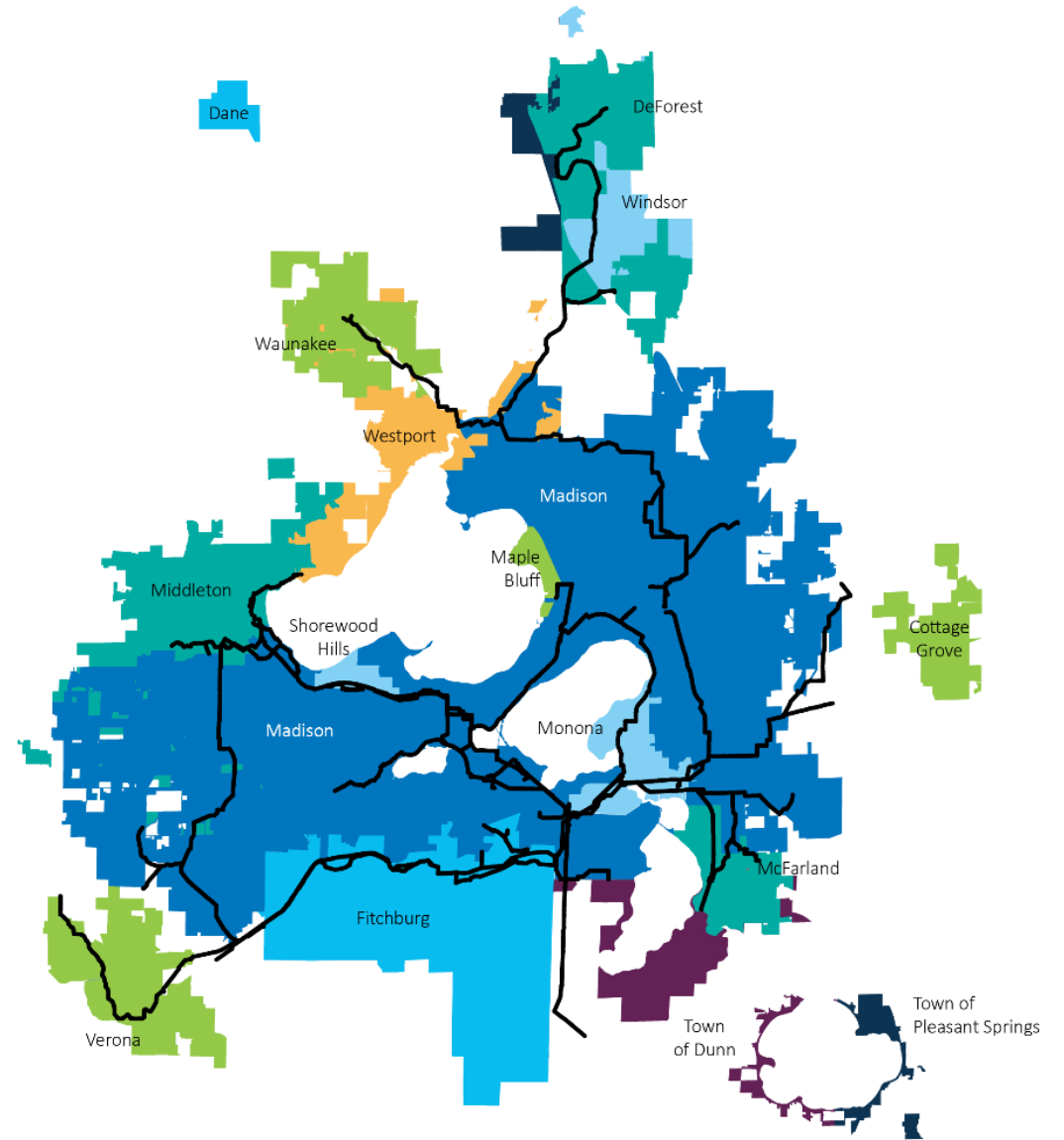


Presented by Martin Griffin, Ecosystem Services Manager



About the District

- Established in 1930
- Regional wastewater utility for 24 customer communities in Dane County
- Serves 440,000 individuals and businesses across 190 square miles
- Operate 151 miles of pipe
- Collects 38 million gallons daily (on average)



District Action Plan



Fate & Transport



Waste Acceptance



Website

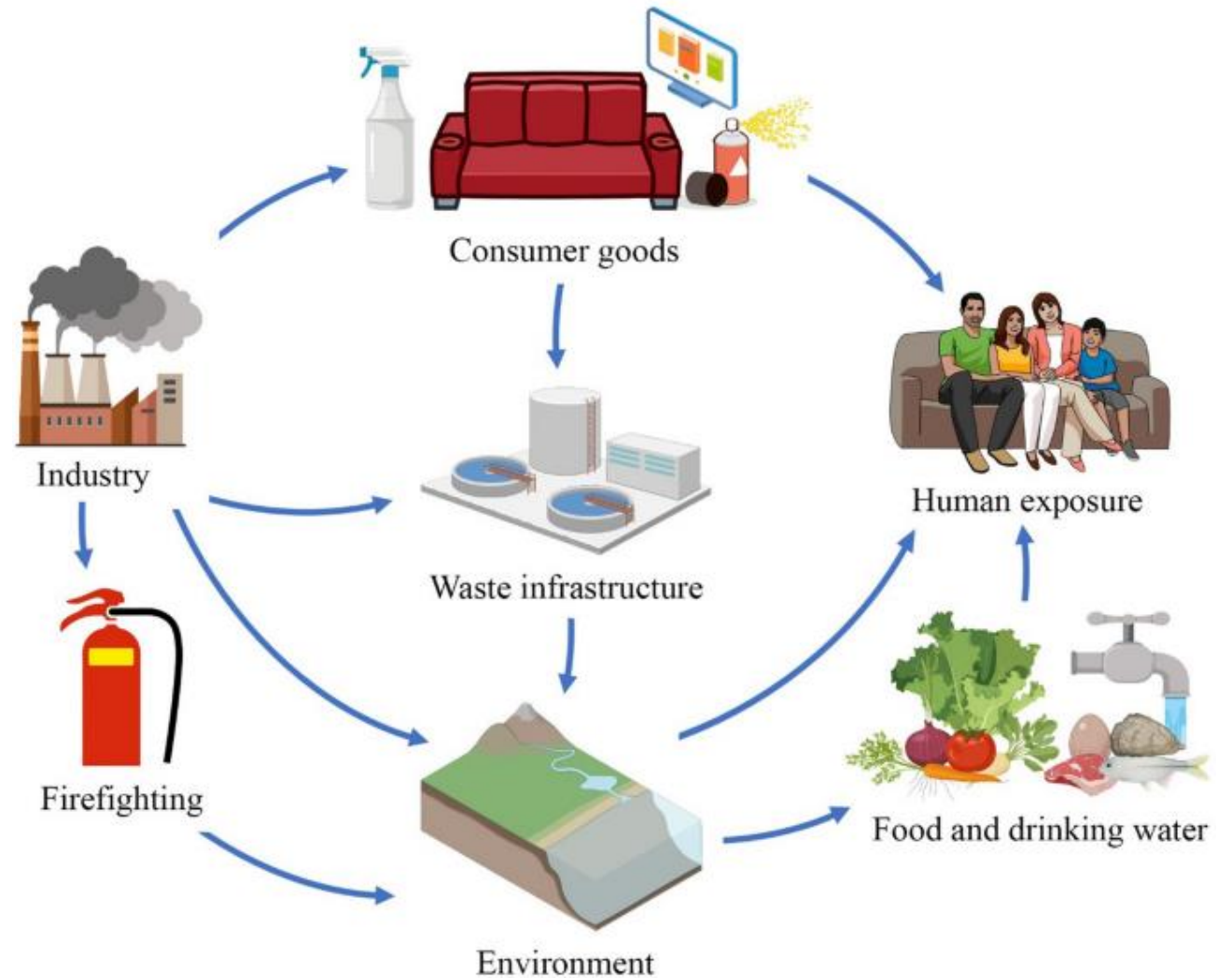
[MadsewerPFASinitiative.org](https://www.madsewerpfasinitiative.org)



Sampling



Pollution Prevention



2025 – Monitoring

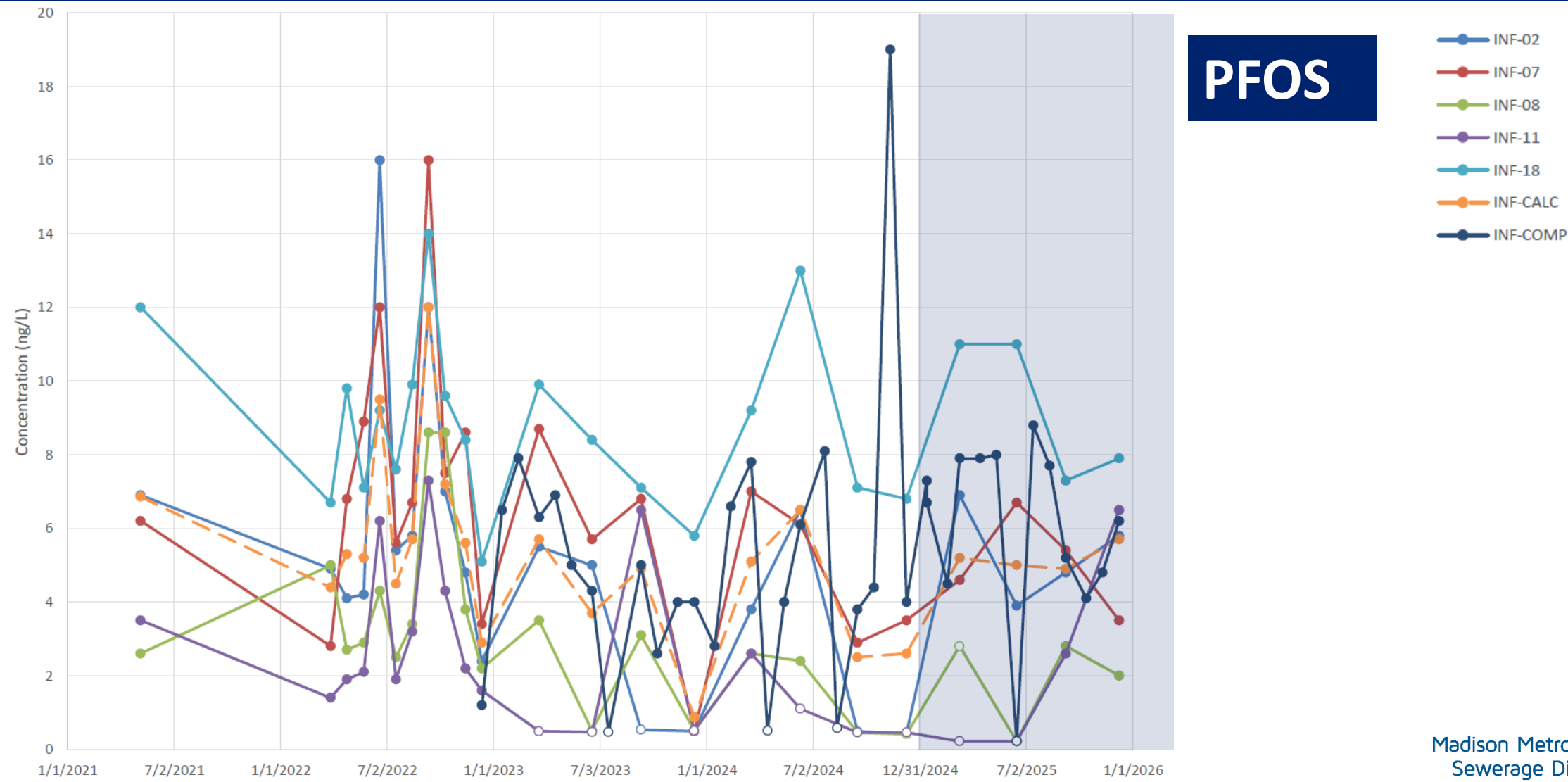
- Continued monthly and quarterly wastewater & biosolids monitoring
- Refined sampling methods for influent
- Refined sampling methods for effluent
- Hauled waste sampling plan



Influent

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2025 Results - Influent



PFOS

- INF-02
- INF-07
- INF-08
- INF-11
- INF-18
- INF-CALC
- INF-COMP

2025 Results – Influent Summary

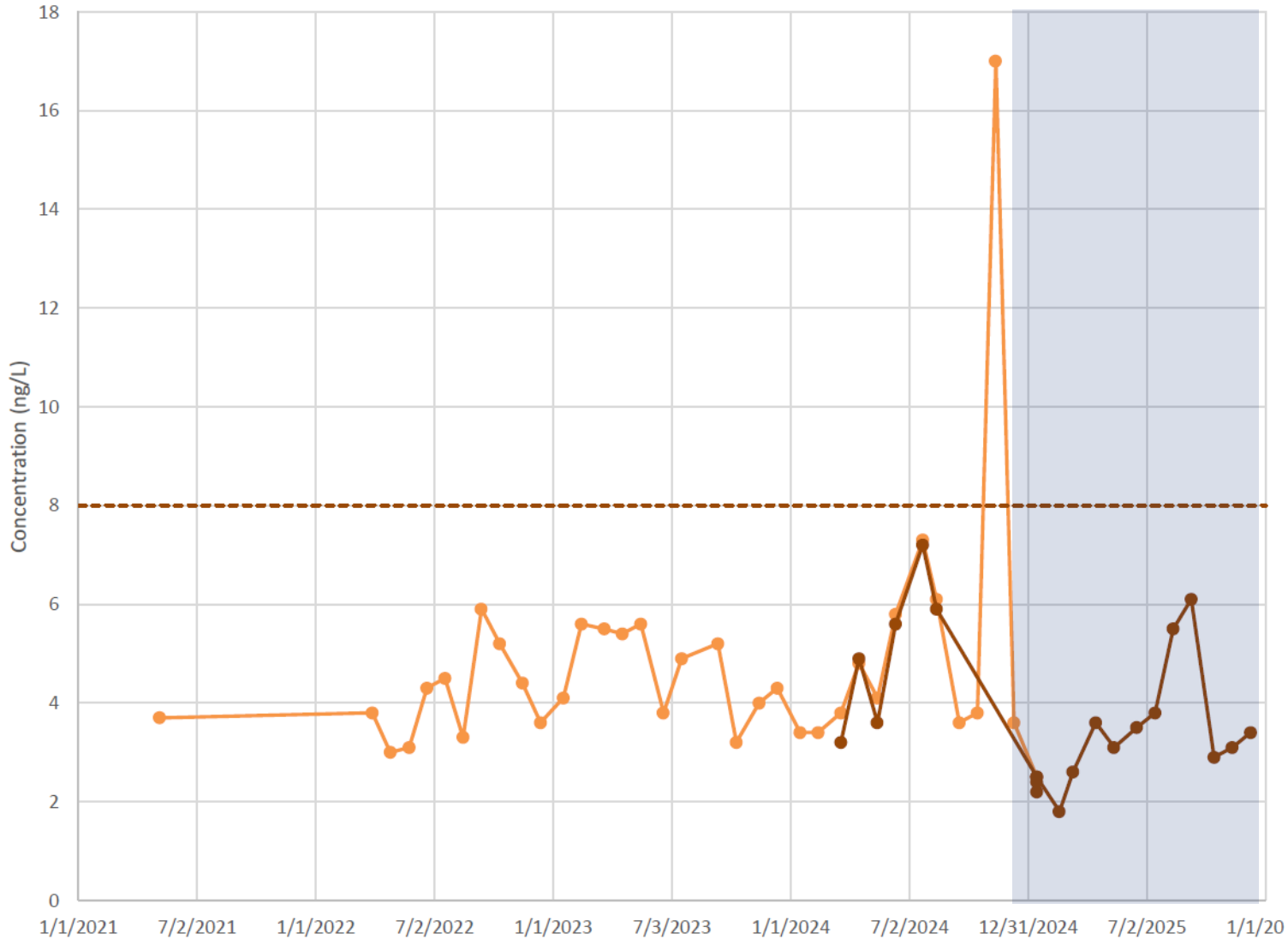
- No single continuous source
- Concentrations in 2025 were generally similar to concentrations detected in 2021-2024
- PS07 and PS18 samples are higher than the others
- Indicators at high concentrations:
 - 5:3 FTCA may be an indicator for probable sources



Effluent

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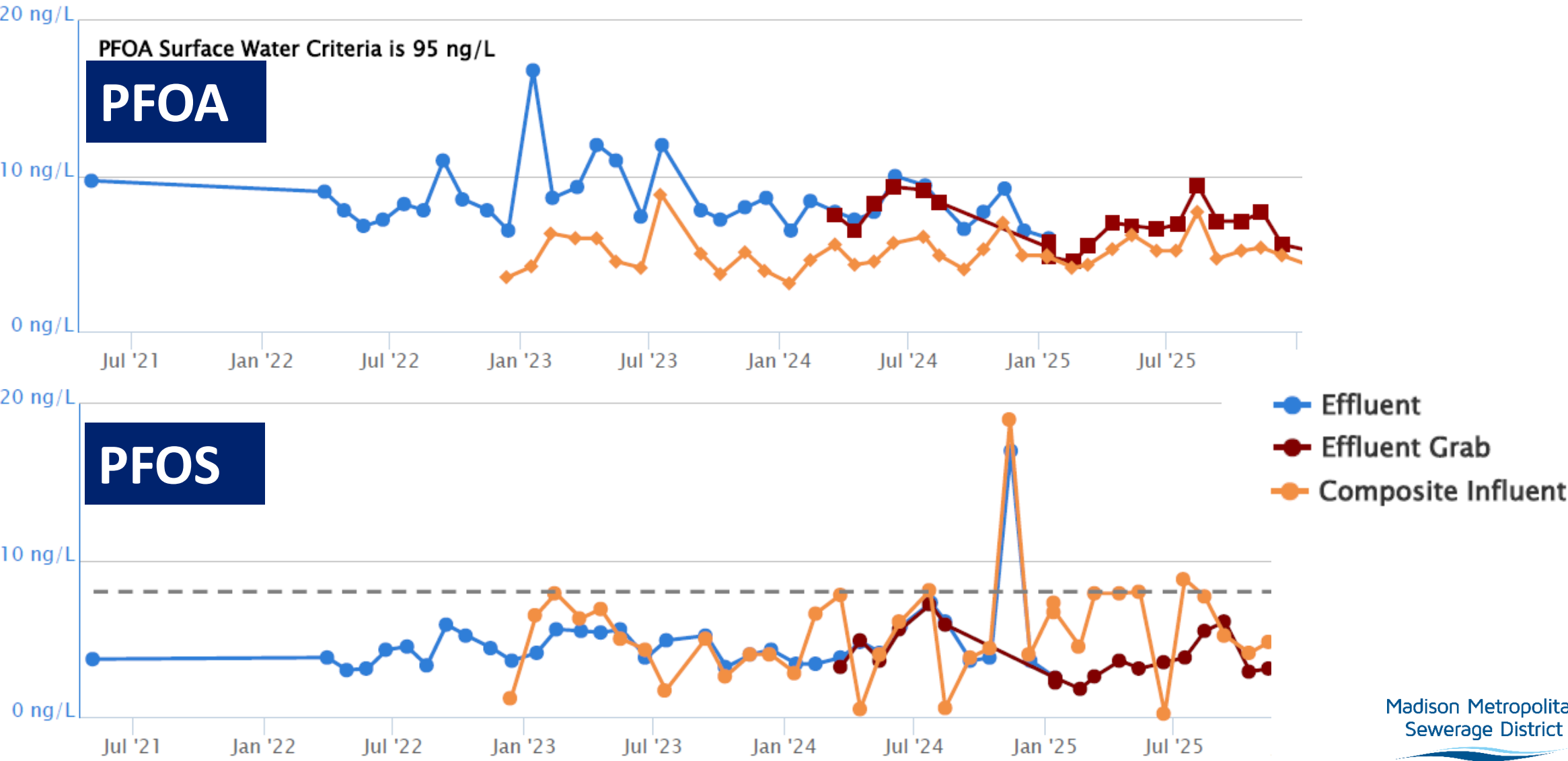
2025 Results - Effluent



PFOS

- PFOS (Composite)
- PFOS (Grab)
- PFOS Surface Water Standard

2024 Results – Influent & Effluent



2025 Results – Effluent Summary

- Effluent levels differ from month to month
- Variation is captured using the grab sample method
- Effluent PFOS lower than PFOA
- Effluent PFOS and PFOA levels below state water quality standards and permit requirements



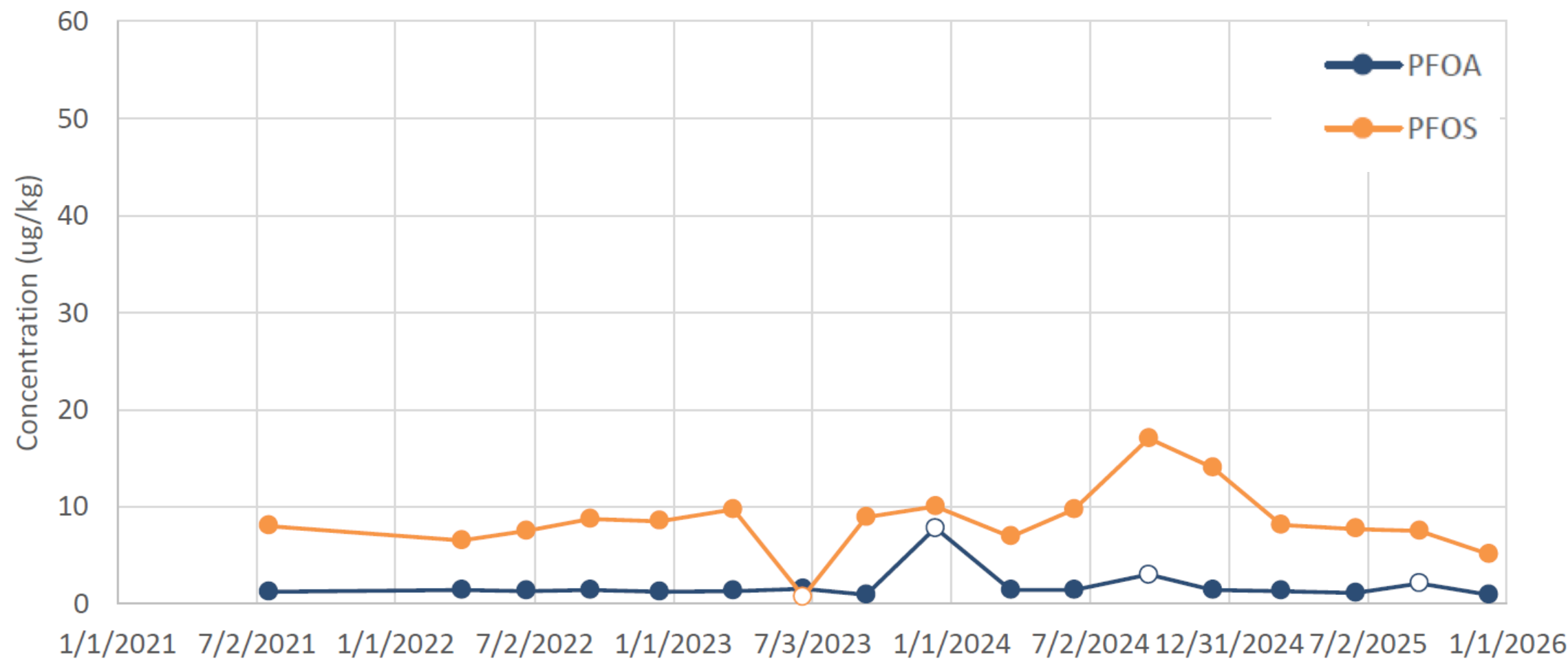


Biosolids



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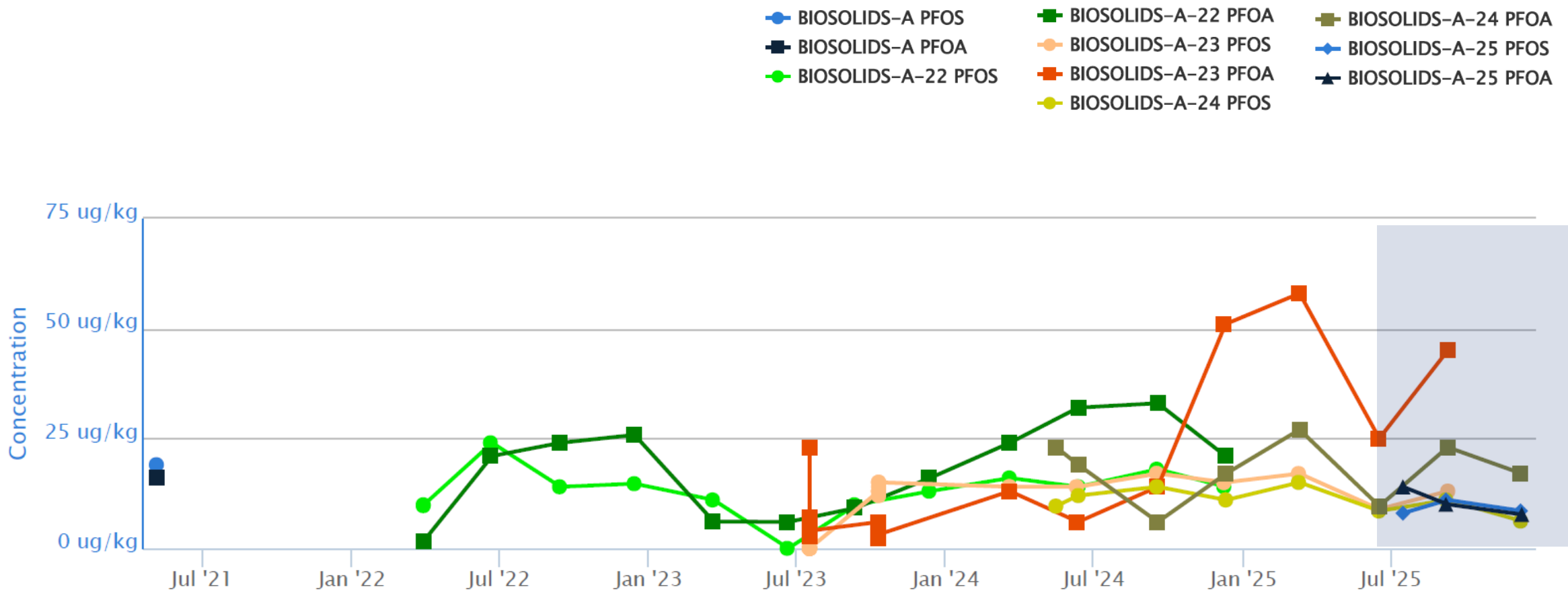
2025 Results – Metrogro Class B Biosolids



2025 sum of PFOA+PFOS ranges from 6.0 – 9.4



2025 Results – Class A Cake Biosolids



2025 sum of PFOA+PFOS ranges from 16.2 – 22.0

2025 Results Summary

- PFAS levels and types continue to be as expected
- PFOA and PFOS levels in effluent below regulatory standards
- Effluent sampling method results similar
- PFOA + PFOS combined value in biosolids below threshold for reducing land application rates



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What's Next?

2026 (current)

- Monitor influent, effluent & biosolids
- Hauled waste sampling pilot project
- Implement new permit requirements

2027 (proposed)

- Monitor influent, effluent & biosolids
- Landfill leachate sampling pilot project
- Wastewater acceptance modeling:
 - Evaluate impact to biosolids
 - Refine impact to effluent of concurrent waste streams



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Questions?

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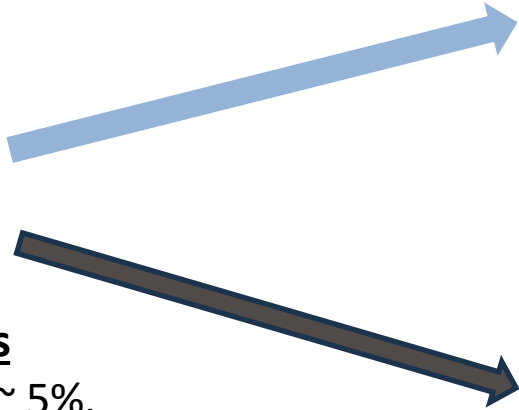
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Facility Plan PFAS Question: Class A Liquid (Lystek)



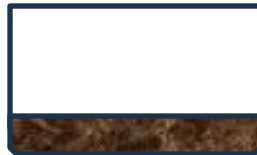
Liquid Biosolids

- Total Solids ~ 5%.
- PFAS is contained in the solids and the liquid.
- Assume 30% of PFAS are in the solids and 70% in the liquid.



Remove Water (dewatering)

- PFAS contained in the liquid returned to treatment plant
- Recycle ~ 70% of PFAS to plant (same mass and concentration as before).
- *Note, some of the recycled PFAS could partition back to the solids train; difficult to predict, however.*



Dewatered Biosolids

- Total solids ~ 15%
- Mass of solids remains unchanged.
- 70% of PFAS returned with liquid to treatment plant.
- Therefore, final PFAS is 30% of starting value; mass of solids remains unchanged, so the dewatered biosolids would have only 30% of the original PFAS levels (dry weight basis).
- **Dewatered biosolids go to the Lystek Process**



Sampling Requirement Authority

Parameter	WPDES Permit	WDNR or EPA Guidance*	District Action Plan
Influent – PFOA and PFOS		✓	✓
Effluent – PFOA and PFOS	✓	✓	✓
Biosolids PFOA+PFOS	✓	✓	
Biosolids 40 PFAS	✓		✓
Hauled Waste, Industrial Users, etc.	✓	✓	✓

*WDNR Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS (v3. 2026)

*WDNR PFOS and PFOA Minimization Plans (2024)

*US EPA Draft Guidance for Reducing Risk from PFOA and PFOS in Biosolids (2026)

Costs

	Year						
	2020	2021	2022	2023	2024	2025	2026**
Consultant*	\$46,650	\$52,315	\$52,315	\$52,315	\$84,850	\$77,465	\$71,781
Contract Lab	-	\$14,100	\$29,350	\$35,310	\$26,535	\$46,045	\$35,820
District Staff	-	-	-	-	\$6,200	\$6,100	\$7,730
Total \$	\$46,650	\$66,415	\$81,665	\$87,625	\$117,585	\$129,610	\$115,331

*Note that 2021-2023 was an average annual expenditure of the three-year 2021-2023 total expenditure of \$156,945

**YTD

2026 YTD projected total: \$135,000



Thank you

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Project Update District Staffing Needs and Projections

Presented by Eric Dundee, Executive Director



Key Considerations

- Many pieces to consider when planning for new positions, including:
 - 2025 Baker Tilly report
 - New leadership team (EMT) and vision
 - Organizational alignment work
 - Strategic Plan: Performance Areas, KPIs & Three-Year Plan

New Technologies & Systems

In the next 5-10 years...

- Enterprise Resource Planning (ERP)
- Enterprise Asset Management (EAM)
- Regulatory databases & software
- Customer Relationship Manager (CRM)

These tools support operational efficiency and reliability but require support and specialized skills to maximize their benefits.



Significant Infrastructure Renewal & Capital Investment

- Aging infrastructure
- High-growth service area and need for increased capacity
- Generational projects are necessary so the District meets regulations and is not a barrier to community growth and economic development
- Uphold our mission to protect public health and the environment



Maintaining Regulatory Compliance

- Infrastructure requirements
- Operations support
- Laboratory support
 - Nitrogen
 - PFAS
 - Emerging contaminants



Key Takeaway

Our talent needs are growing as the service area, technology, and regulatory compliance grow.
The District is always evolving.

Immediate Needs: 2027 Budget Request

- Managers and directors made five position requests through the annual Operating Budget development process.
- Three requests included in the proposed 2027 budget:
 - Project Engineer – Engineering Department
 - Electrical Engineer – Engineering Department
 - Asset Information Specialist II – Reliability Process Department
 - Q3/Q4 addition
- Two requests held for future budgets and to keep requests to what was immediately necessary for 2027.

Engineering Department Positions

Project Engineer

- Provides additional capacity to support capital projects
- 23 active projects in 2027
 - Equals 3.5 projects per engineer for those not dedicated to Liquid Processing
 - 3 per engineer is ideal
- Project equalization prevents critical project delays by maintaining appropriate workload distribution across engineering staff.
- Saves District \$1m over three years

Electrical Engineer

- Currently 2 Electrical Engineers on staff
- District projects are becoming more technically complex, requiring additional in-house electrical engineering expertise
- Addresses critical staffing bottlenecks by supporting both capital project delivery and ongoing Operations and Maintenance needs
- Saves District \$1M over three years (in addition to \$1M saved with Project Engineer)

About that \$1M per Position

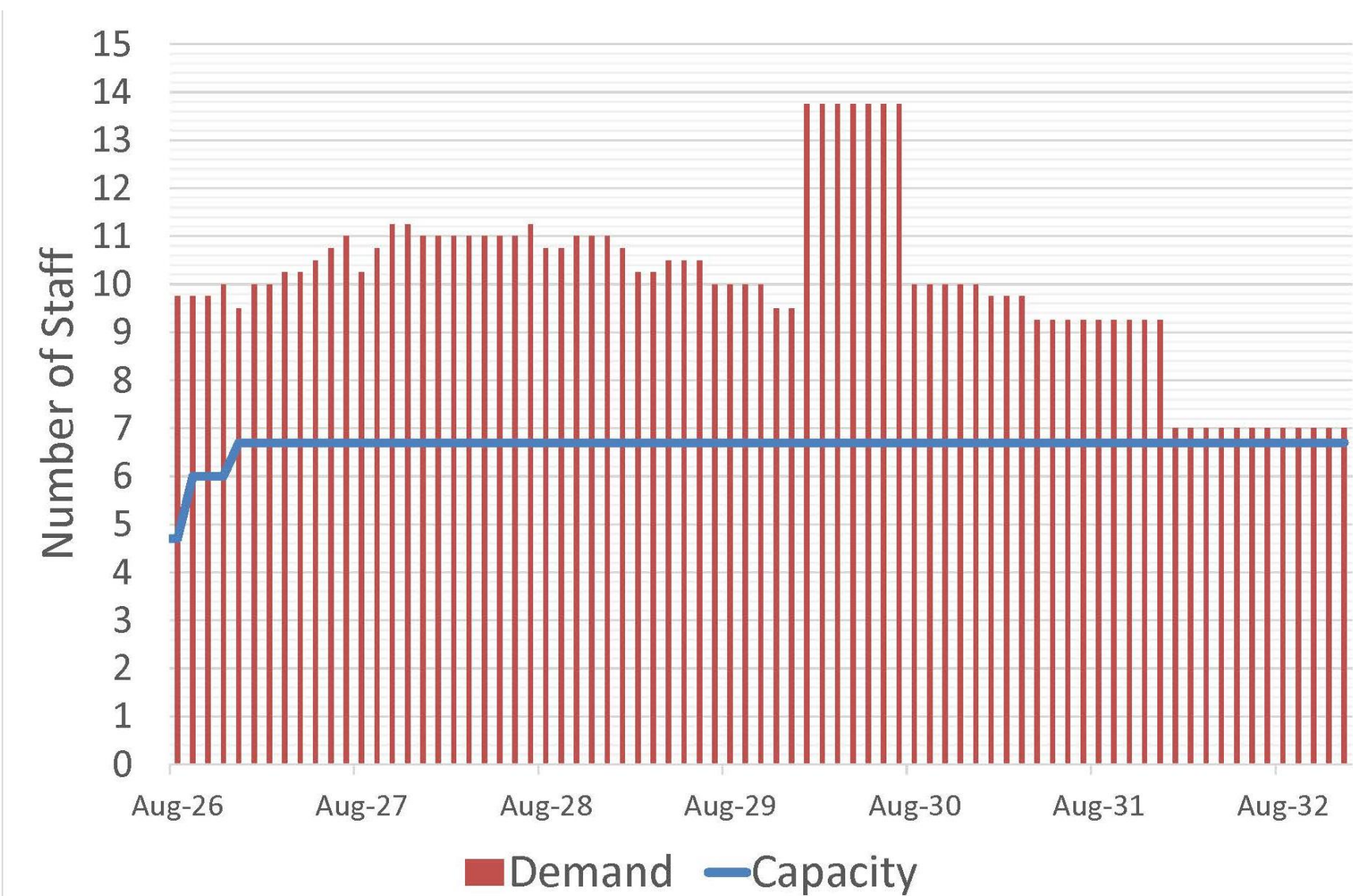
\$1,700,000 Proposal cost for full-time CONTRACTED construction inspector,
Liquid Processing Improvements, Phase 2, over 3 years

- \$500,000 Approx. cost for full-time DISTRICT construction inspector,
Liquid Processing Improvements, Phase 2, over 3 years

=\$1,200,000 Realized cost reductions from using in-house staff

The \$1.7 million *was removed* from the Liquid Processing consulting services contract

Engineering Staffing Analysis

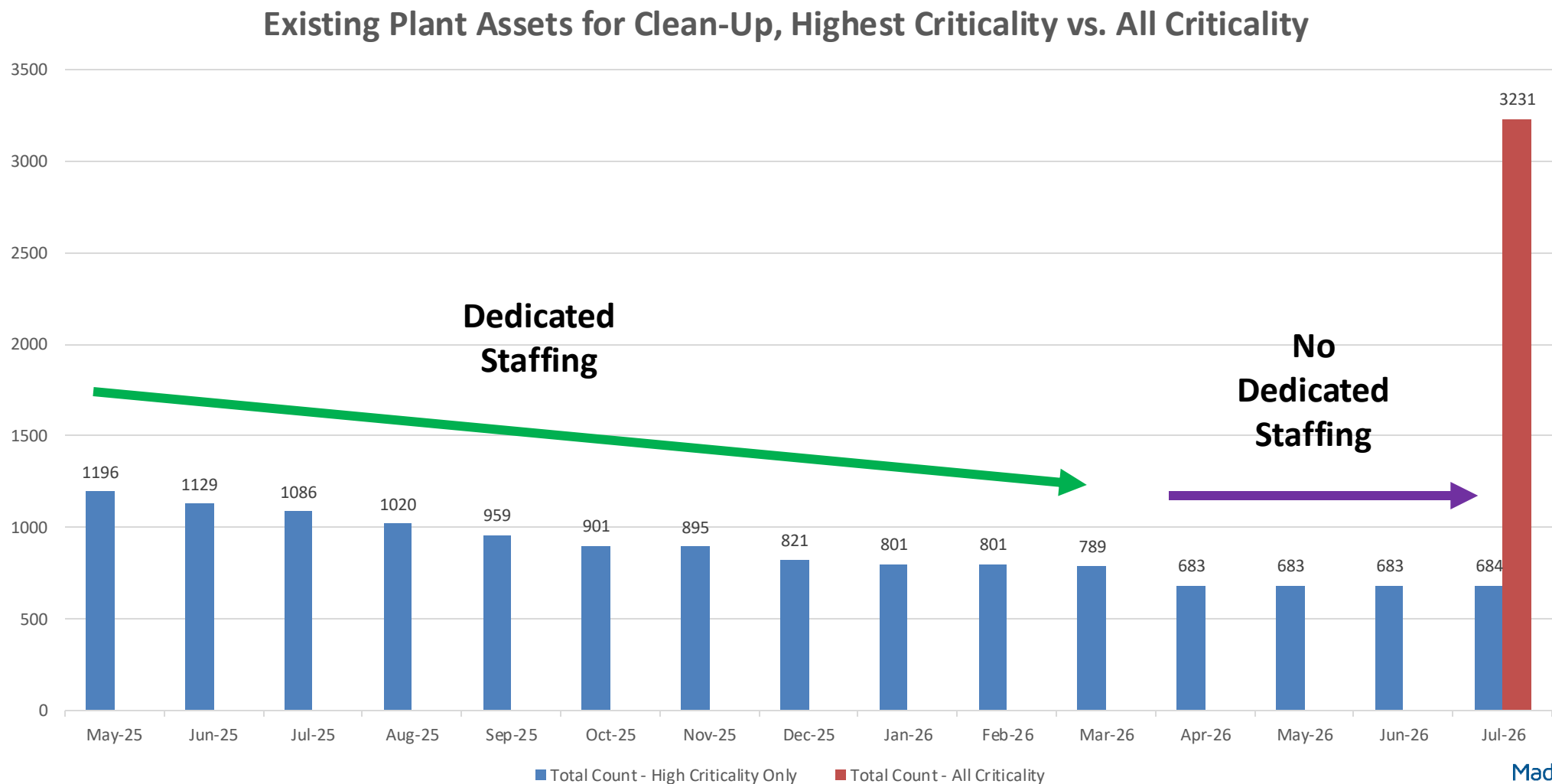


Reliability Process Department Position

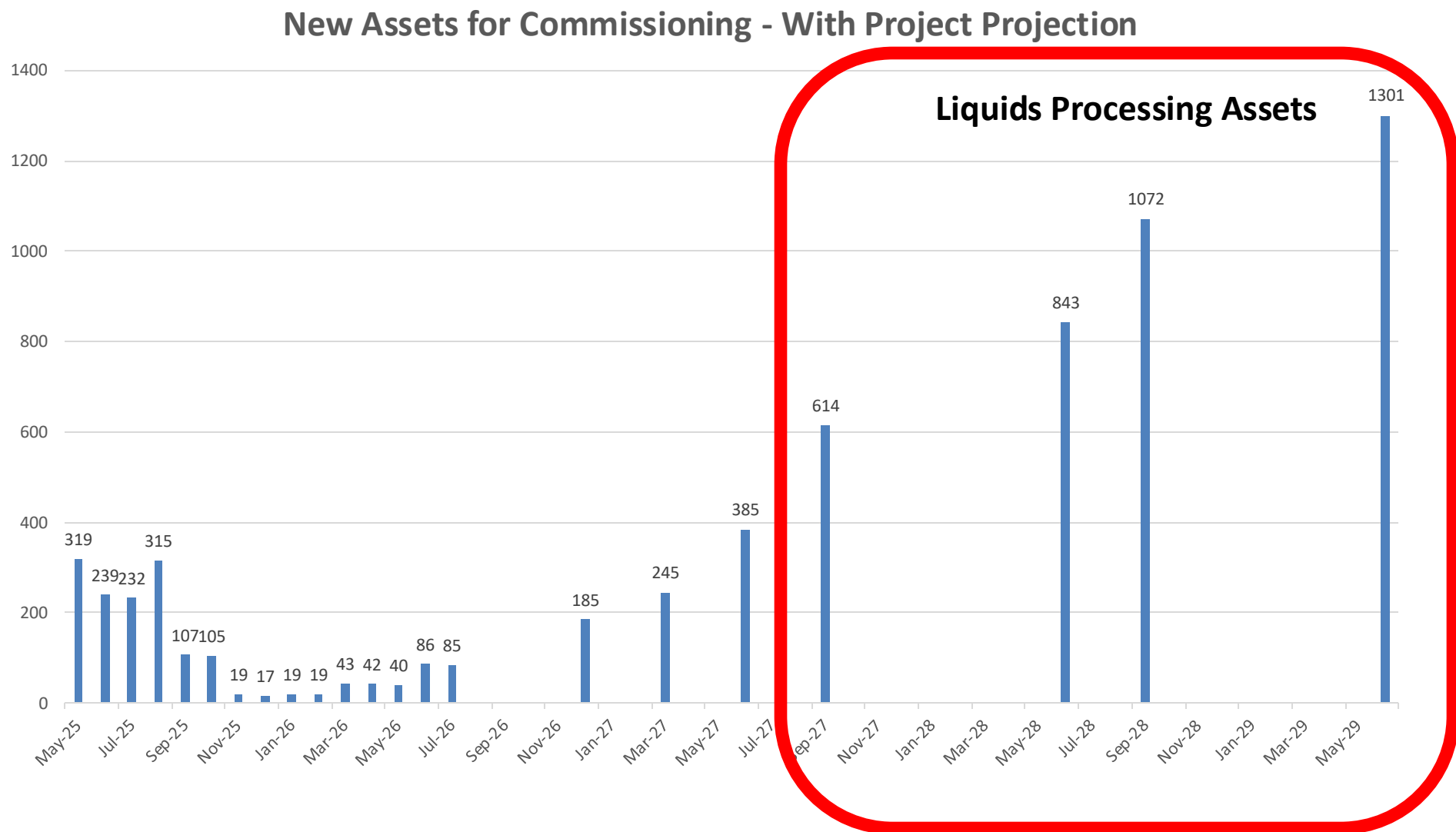
Asset Information Specialist

- Adds necessary staff capacity for new Enterprise Asset Management (EAM), which will follow ERP and is a top-priority Three-Year Plan project
- Critical data support to prepare for and manage new EAM
- Data upkeep in maintenance software systems
- Supports preventative maintenance activities, including benchmark work orders and standard operating procedures (SOPs)
- Streamlines O&M reporting and scheduling

Assets – Treatment Plant Data Trend



Assets – Commissioning Data Trend



Near-Term Needs: 2028-2029 Requests

These two positions were requested for the 2027 budget, but deferred

Operations Planner

- Replicates successful shift made in Electrical & Mechanical departments, shifting work planning from technicians to dedicated planners
- This shift has helped elevate our Planned Maintenance KPI.
- Planning position for Operations projects, which are smaller projects related to the treatment process and currently done by Operators

HR/Administrative Associate

- HR recently completed an Administrative Services assessment to understand departments' needs
 - Needed to determine next steps for Resource Team, which was not addressed in Baker Tilly report
- Assessment found departments have unmet administrative needs, particularly HR
- Would assist with tasks such as recruitment coordination, onboarding, and employee records and data management

Future Needs: 2030 & Beyond

The following positions/functional areas have been identified as areas of future need, but are not planned for at this time:

- Safety/Training/Risk Management
- Operator Supervisor/Lead Support
- Procurement & Contracting
- Inventory & Purchasing
- Laboratory services (PFAS sampling/analysis)



Thank you

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Executive Director Update

Presented by Eric Dundee, Executive Director





Operations Report

Presented by Alan Grooms,
Director of Operations & Maintenance



Shaded area represents one standard deviation around the 3-year average



Total Suspended Solids



Ammonia



BOD5



Chloride



Phosphorus



Effluent e-coli

6-month average May 2026 - Present

July Plant Performance



Regulatory and Legal Review

Presented by Paul Kent

