



## STATUS REPORT

# Progress and Improvements

DPW BUREAU/OFFICE: Patapsco Wastewater Treatment Plant

Date: 5/26/2023

Parameters	April 2023	Monthly Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	4 mg/l	30 mg/l	Yes
Biochemical oxygen demand (BOD)	10 mg/l	30 mg/l	Yes
Total phosphorus (TP)	0.2 mg/l	2.0 mg/l	Yes
Ammonia (NH <sub>3</sub> )	0.4 mg/l	N/A	N/A
Enterococci	3 MPN/100 ml	35 MPN/100 ml	Yes

N/A= Not Applicable; MPN= Most Probable Number

**NOTE: THERE IS A MONTHLY AMMONIA PERMIT LIMIT OF 6.3MG/L DURING THE SUMMER SEASON, MAY 1 - OCTOBER 31, AND NO MONTHLY PERMIT FROM NOVEMBER 1 – APRIL 30.**

Parameters	Annual Limit (cumulative)	Seasonal Limit (cumulative)	April Unofficial Totals	Meeting Requirements
Total Nitrogen (TN)	889,300lbs	333,330lbs	37,761lbs	Yes**

NOTE: All data is in for April

## Maintenance Updates

Repairs to the Gravity Sludge Thickener (GST) #4 have been completed and returned to service. This repair provides all three operational GSTs. The optimal number for average plant flows is two GSTs.

Repairs to the scum troughs in the Primary Settling Tanks (PSTs) will provide automation and necessary improvements to prevent Fats Oil and Grease (FOG) from intruding into the effluent process. The contractor has mobilized and begun work. The scum troughs continue to operate manually, and the scum/FOG is removed from the process and put into dumpsters for hauling to the landfill. Patapsco has 6 PSTs total. There are currently four in service, with two on standby for redundancy.

All eight screens have been repaired and installed. The facility has all eight functional screens for plant operations, with four needed for average flows.

There are currently four of six Oxygen Reactors available for the treatment process. The optimal number for regular flow is four reactors. The remaining two oxygen reactors are out for various proactive repairs and maintenance. DPW anticipates having all six reactors ready for service by the end of the year.

The Lox Plant was restarted on April 24, 2023 and is online.

The secondary treatment process has seven of eight secondary clarifiers available. The optimal number for regular flow is five clarifiers. The remaining clarifier is out for proactive repairs.

The Biological Aerated Filters (BAF) have all 22 cells available for operation. The plant needs fourteen cells for design flow.

The Denitrification Filters (DNF) remove the Nitrogen from our effluent and are critical to maintaining permit compliance. All 34 DNF filters are fully functional and available to be placed in operation. Twenty-four are required for average flows, allowing for ten redundancy filters.

The drying facility operated by our partner, Synagro, has been placed back into operation and continues its biosolids drying process. The dryers produce biosolids used for fertilizer. The fertilizer is one way Patapsco supports DPW's environmental protection mission. Our mission statement states, "We support the health, environment, and economy of our city and region by providing customers with safe drinking water and keeping neighborhoods and waterways clean."

Preventive maintenance efforts remain the primary focus of the plant operations and maintenance staff.

## **Compliance and Safety**

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The Office of Environmental Regulatory Compliance and Safety (ERCS) provided compliance assistance to address supplies and sampling equipment for the operators at both plants. In the month of April, they conducted training on the changes to the 20SW industrial stormwater regulatory permit requirements, including improving upon staff understanding of quarterly visual monitoring and benchmark sampling. This team reviewed internal data-gathering procedures and improved methods for creating standardized reporting across the Wastewater Facilities Division. ERCS conducted two regulatory site visits, providing compliance assistance with interpreting regulatory agency requests.

Addressing health and safety concerns is essential to the overall compliance of our Wastewater Treatment Facilities. ERCS provided compliance assistance in reviewing, identifying, and tracking health and safety items. ERCS continues the review and analysis of the pelletizer incident at Back River and the review of safety operations at both plants regarding the sludge operation and pollution prevention controls. We have finished the development of our new data tracking system and a centralized data hub for Health and Safety-related documentation. We will continue to work on-site safety representative program for monthly in-house inspections.

## Training

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The Bureau continues its focus on 360Water training for operations and maintenance staff. 360Water is also adding more curriculum to capture revised operations for nutrient removal.

The city has generated and registered a list of participants for the June 04 – 09, 2023 WWOA Annual Short Course, which consists of a series of classroom training to prepare operators for the certification exam. The City is sending 15 staff to this training to aid in certification.

## Summary

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As we continue, we are confident in a clear path to compliance at the Patapsco Wastewater Treatment Plant. **Monthly parameters have remained under permit limits since September 2022 and have maintained compliance since January 2023 permit requirements.** The Patapsco is an asset to the greater Baltimore Region, and DPW is excited about its path to sustained compliance.