



STATUS REPORT

# Progress and Improvements

DPW BUREAU/OFFICE: Patapsco Wastewater Treatment Plant

Date: 6/10/2023

Parameters	May Parameters	Monthly Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	4 mg/l	30 mg/l	Yes
Biochemical oxygen demand (BOD)	7 mg/l	30 mg/l	Yes
Total phosphorus (TP)	0.1 mg/l	2.0 mg/l	Yes
Ammonia (NH3)	0.4 mg/l	6.3 mg/l	Yes
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)	May Official Totals	Meeting Requirements
Total Nitrogen (TN)	889,300lbs	333,330lbs	22,426lbs	Yes**

## Maintenance Updates

The contractor has mobilized and begun work on the scum troughs at the Primary Settling Tank (PSTs) to prevent Fats Oil and Grease (FOG) from intruding into the effluent process. The scum troughs continue to operate manually, and the scum/FOG is removed from the process and 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 screens have been repaired and installed. The facility has 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 2023.

The Lox Plant continues to operate and provide oxygen for the reactors.

The secondary treatment process continues to have 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) continue to 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 remain 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, continues the operation of its biosolids drying process. The dryers produce biosolids which are 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) participated in site inspections, at Patapsco WWTP and Back River WWTP, with MDE environmental compliance specialists. ERCS provided compliance support in coordinating plant update reports to MDE. ERCS also assisted WWTP personnel: in improving SOPs related to quality control, equipment verification processes, routine monitoring, and sample data reporting to MDE. ERCS has begun meeting routinely with the WWTP's management and the Program Management Team on health, safety, and facility asset management.

## **Training**

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The City's Program Management Team (PMT), Atkins Global, continues working with the City staff to help ensure that apprenticeship and ongoing training needs are being met.

The B'More WISE cohort continues their training within their third rotation. The cohort has two intensive in-class learning days and three weekly on-the-job training courses. Their participation in the program has been received with positive feedback from both the cohorts and the host facility staff.

The Bureau continues its focus on 360Water training for operations and maintenance staff. The plant operations team met their May goal of 70 training hours utilizing the 360Watersystem.

The City is sending 15 operators from the Wastewater Facilities Division to the CWEA short course to aid in attaining class 5A operator 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 are in full effluent permit compliance starting in January 2023.** The Patapsco is an asset to the greater Baltimore Region, and DPW is excited about its path to sustained compliance.