



## STATUS REPORT

# Progress and Improvements

DPW BUREAU/OFFICE: Patapsco Wastewater Treatment Plant

Date: 7/10/2023

Parameters	June Parameters	Monthly Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	5 mg/l	30 mg/l	Yes
Biochemical oxygen demand (BOD)	8 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	2 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)	June Official Totals	Meeting Requirements
Total Nitrogen (TN)	889,300lbs	333,330lbs	24,933 lbs	Yes**

\*\*6 Days of TN data is pending

## Maintenance Updates

The contractor has 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 six 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 being cleaned out in preparation for return to service. 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 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) continue to have all 22 cells available for operation. The plant needs 14 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 10 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. Producing this fertilizer is one of many ways 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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On June 15, 2023, The Office of Environmental Regulatory Compliance and Safety (ERCS) participated in MDE field inspection at Patapsco WWTP, with MDE environmental compliance specialists. ERCS assisted in updating the procedure for chlorimeter verification utilizing primary standards.

The City and Atkins Global, the City's partner in ensuring compliance, continue to implement the Weekly Asset Management and Safety Meeting to increase efforts for current site hazards and prior MOSH violations. Review of OSHA 300 data and incident reports is ongoing, to determine personal protection equipment needs and safety training needs. Health and Safety professionals have begun conducting comprehensive safety audits.

ERCS began meeting with the Pre-Treatment section to review Fats, Oil, and Grease (FOG) strategies. Work continues in the review of updated Stormwater Pollution Prevention Plans (SWPPP) to meet applicable changes to the newly released MDE 20 SW Industrial Stormwater Permit.

ERCS met with the plant staff to review the monthly operating report's data and to address communication tracking between the City and our contract laboratory.

## Training

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

The B'More WISE cohort is nearing graduation. The cohort has been involved in two intensive in-class learning days and three on-the-job training courses each week over the past 6-months. Their participation in the

program has been received with positive feedback from both the cohorts and the host facility staff. The next cohort is being screened and reviewed to start in August.

It is important to note that the B'More WISE cohort, by graduation, will have completed the necessary testing requirement for their permanent operator certification. They will still need the required 3 years of experience before the formal issuance of the certificate but will have already completed the testing portion. Maryland Center for Environmental Training (MCET) personnel is working with the City of Baltimore to schedule a testing date for the B'More WISE Cohort. There are 11 students who have successfully completed the program.

The Bureau continues its focus on 360Water trainings for operations and maintenance staff. The plant operations team met their June goal of 50 training hours utilizing the 360Watersystem.

## Summary



*Fig. 1: Patapsco WWTP final effluent*

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.