STATUS REPORT

Progress and Improvements

DPW BUREAU/OFFICE: Patapsco Wastewater Treatment Plant Date: 4/10/2023

Parameters	March 2023	Monthly Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	4 mg/l	30 mg/l	Yes
Biochemical oxygen demand (BOD)	12 mg/l	30 mg/l	Yes
Total phosphorus (TP)	.4 mg/l	2.0 mg/l	Yes
Ammonia (NH3)	0.7 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)	March Unofficial Totals	Meeting Requirements
Total Nitrogen (TN)	889,300lbs	333,330lbs	30,567lbs	Yes**

** = Still awaiting 12 days of data. With the current trends, the plant will meet its parameter goals.

Maintenance Updates

Repairs to the Gravity Sludge Thickener (GST) #4, pictured left, have been completed and returned to service. This repair provides all three operational GSTs for Patapsco Waster Water Treatment Plant (PWWTP). The optimal number for average plant flows is two GSTs.

The Primary Settling Tank (PSTs) repair order will provide automation and necessary improvements for scum troughs 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 into dumpsters for hauling to the landfill. Patapsco has six (6) PSTs in 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 six reactors to be ready for service by the end of the year.

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

The Office of Environmental Regulatory Compliance and Safety (ERCS) participated in site inspections, at PWWTP 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

The City's Program Management Team, Atkins, has reviewed all plant information to assist with establishing the training and certification needs of the staff. This team coordinated efforts with the

City's Training and Development Chief in a workshop on 4/5/2023. The goals are to establish robust apprenticeship training and continuing education for current staff. Additionally, we offer supplemental support classes to operations staff to enhance permanent certification rates.

The BMore WISE cohort continues their training within their second rotation. The cohort has two intensive in-class learning days and three weekly on-the-job training courses.

The City's computer-based training continues to be a focus of the Bureau of Water and Wastewater as we enhance our operations at our wastewater facilities. We encourage our employees to complete one 360Water course every two weeks for continuing education. Staff has completed over 80 hours of 360Water training since our March progress report, with two fully completed and six (6) others more than halfway.

The City is generating a list of participants for the June short course, which consists of classroom training to prepare operators for the 5A licensure exam.

Summary

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.** The Patapsco is an asset to the greater Baltimore Region, and DPW is excited about its path to sustained compliance.

Pictured left: Patapsco's clear effluent discharging from the plant.