



STATUS REPORT

Progress and Improvements

DPW BUREAU/OFFICE: Back River Wastewater Treatment Plant (Back River) Date: 2/10/2023

Parameters	January 2023	Monthly Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	3 MG/L	10 mg/l	Yes
Biochemical oxygen demand (BOD)	5 MG/L	10 mg/l	Yes
Total phosphorus (TP)	<0.10 MG/L	0.20 mg/l	Yes
*Ammonia (NH3)	0.4 MG/L	5.1 mg/l	N/A
E-coli	4 MPN/100 ML	126 MPN/100 ml	Yes

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

***NOTE: THERE IS A MONTHLY PERMIT LIMIT OF 2.0MG/L DURING THE SUMMER SEASON (FROM 5/1-10/31) AND 5.1MG/L THE REST OF THE YEAR.**

Parameters	Annual Limit	Seasonal Limit	January Unofficial Totals	Meeting Requirements
Total Nitrogen (TN)	1,592,055 lbs cumulative	99,782 lbs	63,519 lbs	Yes**

** = Still awaiting 3 days of data. With the current trends it appears that the plant will meet its parameter goals.

Maintenance Updates

Repairs to Primary Settling Tank (PST) #2 are underway for scheduled completion in May 2023. PST #9 and 10 are currently under repair with timelines of June and September 2023 respectively. PST #3 will be in service in November 2023. PST #4 will be ready in January 2024. PST #5 is slated for Fall 2023 and PST #6 still needs to be cleaned out and assessed for repairs. This timeline would provide in service 8 PST's by the end of 2023.

There are currently 15 of 18 reactors available for process (12 in service with 3 on standby). The remaining three are out for various proactive repairs and maintenance. The optimal number for regular flow is 10 reactors. The secondaries have 31 of 36 final clarifiers available (27 in service with 4 available on standby). The remaining clarifiers are out for various proactive repairs and maintenance. The optimal number for regular flow is 20



1- PST #7 Back in Service at Back River



2 New lights installed at the PST Cat Walk at Back River

clarifiers. Plant staff are slowly scaling back the number of in-service reactors and clarifiers towards the optimal amount for the given flow. This change will increase the overflow rate through the process and reduce detention times which can lead to algae and phragmite growth within the process areas.

All 52 The De-Nitrification Filters (DNF) filters are available for service which includes 13 filters for redundancy purposes. All methanol sensors have been replaced and calibrated allowing the system to work in automatic.

There are currently two centrifuges, #1 and #3, available for operations. As part of our proactive maintenance program, parts for #2 are shipping this week to allow for #2 to serve as a redundant backup. Parts for #4 are still pending and awaiting a shipping update.

Preventive maintenance efforts continue to be the primary focus of the maintenance staff.

Compliance and Safety

The Office of Environmental Regulatory Compliance and Safety (ERCS) participated in site inspections, at Patapsco WWTP and at Back River WWTP, with MDE environmental compliance specialists. Compliance support was provided by ERCS in coordinating plant update reports to MDE. ERCS also assisted WWTP personnel: in improving SOP's 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 has procured the services of a Program Management Team, Atkins, to assist with the establishing the training and certification needs of the staff. This team will be coordinating with the City's new Training and Development Chief to establish apprenticeship training, continuing education for current staff, and establishing a robust system that promotes educational growth and opportunities for staff. Additionally, supplemental support classes for operations staff to enhance permanent certification rates.

The BMore WISE cohort of 11 new members began and, each week, are participating in 2 days of intensive in class learning and 3 days of on the job training to help bring them up to speed to be future operations apprentices.

Training continues to be a focus of the Bureau of Water and Wastewater as we enhance our operations at our wastewater facilities. We are encouraging our employees to complete 1 360Water course every 2 weeks for continuing education.

A Maryland Certified Environmental Training (MCET) class is being held at Patapsco for operator certification trainings on February 8, 2023 and February 15, 2023.

Summary

DPW has made substantial progress toward full compliance at Back River. More specifically, suspended solids, biochemical oxygen demand, total phosphorus, ammonia, and total nitrogen have decreased significantly since March 2022. **All monthly parameters are currently under permit limits and Back River has maintained compliance since June 2022.**

DPW recognizes that Back River is a valuable asset to the Baltimore region and we are excited about the path forward to sustained compliance.