



STATUS REPORT

Progress and Improvements

DPW BUREAU/OFFICE Back River Wastewater Treatment Plant (Back River)

Date 11/11/2022

Parameters	Week ending 10/28/22	Week ending 11/4/22	Permit limit	Meeting Requirement
Total Suspended Solids (TSS)	2 mg/l	XX mg/l	15 mg/l	Yes
Biochemical oxygen demand (BOD)	<2.0 mg/l	XX mg/l	15 mg/l	Yes
Total phosphorus (TP)	<0.10 mg/l	XX mg/l	0.30 mg/l	Yes
Ammonia (NH3)	0.2 mg/l	XX mg/l	N/A mg/l	Yes
Total nitrogen (TN)	2.3 mg/l	XX mg/l	4.0 mg/l	Yes
E-coli	5 MPN/100 ml	XXMPN/100 ml	126 MPN/100 ml	Yes

N/A= Not Applicable MPN= Most Probable Number XX=Awaiting Official Results

NOTE: Ammonia permit is seasonal from 5/1-10/31. There is no permit level otherwise.

Maintenance Updates

The third centrifuge has been completed and is available for service. This centrifuge is being placed into service so the other two can be removed, one at a time, for regular maintenance.

In-Ground Digester cleaning and repairs for #1 and #4 are ongoing. Timeline for completion is on schedule for early 2023. The contract for rehabilitation of all remaining digesters, in ground and egg shaped, is being processed for award. Notice to proceed on that contract will be near the end of the year. The digestion process reduces the amount of biosolids requiring treatment prior to removal while improving methane production for the plant co-generation efforts which supply power to the plant facilities.

There are now 32 of 48 sand filters in service. These sand filters provide one last treatment for solids removal, or “polishing”, of the effluent prior to disinfection, neutralization of the chlorine, and discharge to the receiving waters.

Community Updates

On Wednesday, November 9, 2022, students of St Martins Episcopal School came to Back River for a presentation on “Wide World of Wastewater Treatment”. It was a learning experience for all. These opportunities are instrumental in teaching the public about ways to be good stewards of their environment and understanding how their water system works. This is also an important way for us to engage and teach youth about the career opportunities available in the science, engineering, and mathematics fields.



Pictured Left: Ronald Turner, Acting Plant Manager at Back River leading the students from St. Martin's Episcopal School around the plant.

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.**

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