



**Maryland**  
Department of  
the Environment

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**Public Hearing**  
on the  
**Tentative Determination**  
for  
**NPDES Surface Discharge Permit Renewal**  
of  
**Back River Wastewater Treatment Plant (WWTP)**  
*(State Application No. 22-DP-0581, NPDES No. MD0021555)*

Thursday, May 15, 2025, at 5:30 PM  
Hawks Pleasure Club | 430 Riverside Dr., Essex, MD 21221

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# MEETING AGENDA

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0. Introduction: 5:30pm – 5:40pm (Session off record)

- *Housekeeping Rules*

**1. Convene the Hearing: 5:40pm – 5:45pm (Session on record)**

- *Opening Statement*

2. Recess Session: 5:45pm – 6:45pm (Session off record)

- *Presentation followed by Q&A / discussion*

3. Reconvene for Formal Testimony: 6:45pm – 7:30 pm (Session on record)

4. Closing statement and adjourn: 7:30pm (Session on record)



# QUESTIONS / COMMENTS

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# PERMIT RENEWAL STATUS (22-DP-0581)

2021

November

- Permit renewal application received by MDE.

2022

December

- Site Visit conducted.

2023

August

- Notice of Application Received published in "The Sun."
- Request for Informational Meeting (IM) received.

October

- Notice of IM published in "The Sun."

November

- IM held.

2024

April

- Draft permit & SRFS sent to Baltimore City & EPA for review.

May

- EPA comments received on the draft permit.

July

- Baltimore City comments received on the draft permit.

November

- Revised draft permit, SRFS, and Comment Response Document (CRD) sent to EPA by MDE.

2025

March

- Latest revision of draft permit, SRFS, and a revised CRD sent to Baltimore City & EPA by MDE.

April

- Combo Public Notice for Tentative Determination & Public Hearing published in "The Sun."

May

- Public Hearing Held.



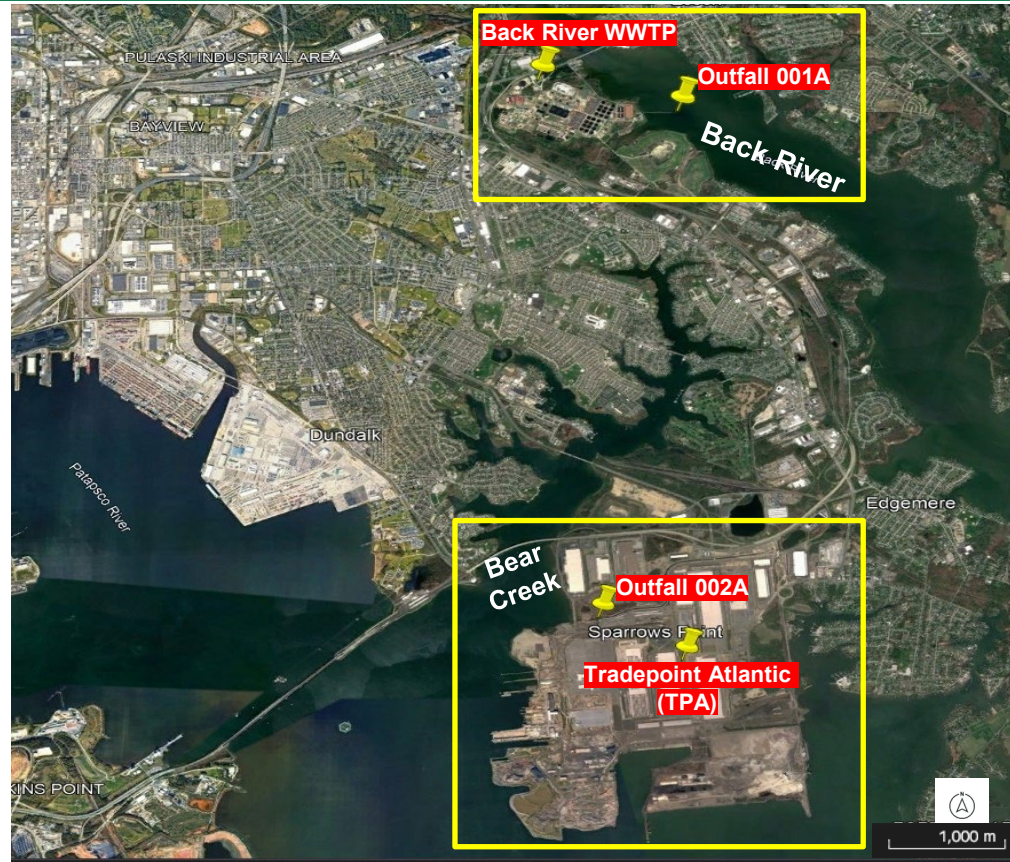
## APPLICANT & FACILITY INFORMATION

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<b>Facility Name:</b>	Back River WWTP
<b>Applicant:</b>	Mayor and City Council of Baltimore, City Hall
<b>Mailing Address:</b>	100 North Holliday Street, Baltimore, MD 21202
<b>Brief Description:</b>	The WWTP is a tertiary Enhanced Nutrient Removal (ENR) treatment system with a 180 MGD design capacity and serves Baltimore City & Baltimore County with a population of approximately <u>976,000</u> . The ENR upgrade was completed and made operational on <u>09/01/2017</u> .
<b>Facility Location:</b>	8201 Eastern Avenue, Baltimore, MD 21224



# FACILITY & OUTFALL LOCATION



Approximate  
distance  
between Back  
River WWTP &  
Tradepoint  
Atlantic is  
~ 4.5 miles.

Approximate  
distance  
between Outfalls  
001A & 002A is  
~ 5 miles.





## RECEIVING STREAMS INFORMATION

Outfall	001A	002A
<b>Name of Stream</b>	<b>Back River</b>	<b>Bear Creek</b>
<b>Type of Stream</b>	Tidal River	Estuarine
<b>Watershed</b>	Back River (02-13-09-01)	Baltimore Harbor (02-13-09-03)
<b>Chesapeake Bay Model Segment</b>	Back River Oligohaline (BACOH)	Patapsco River Mesohaline (PATMH)
<b>Stream Use Designation</b>	Use II (Non-shellfish harvesting): Water protected for estuarine & marine aquatic life, and water contact recreation	Use II (Non-shellfish harvesting): Water protected for estuarine & marine aquatic life, and water contact recreation



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# FACILITY PERFORMANCE SUMMARY

January 2019 - December 2024



## FLOW: ANNUAL AVERAGE DISCHARGE SUMMARY, MGD (1/2019 – 12/2024)

Year	Outfall 001A	Outfall 002A	Combined
	130 MGD <i>(Permitted Capacity)</i>	50 MGD <i>(Permitted Capacity)</i>	180 MGD <i>(Design Capacity)</i>
2019	114.8	34.3	149.1
2020	118.2	24.1	142.3
2021	112.7	20.2	132.9
2022	107.4	18.5	125.9
2023	102.8	17.8	120.6
2024	124.1	12.9	137.0

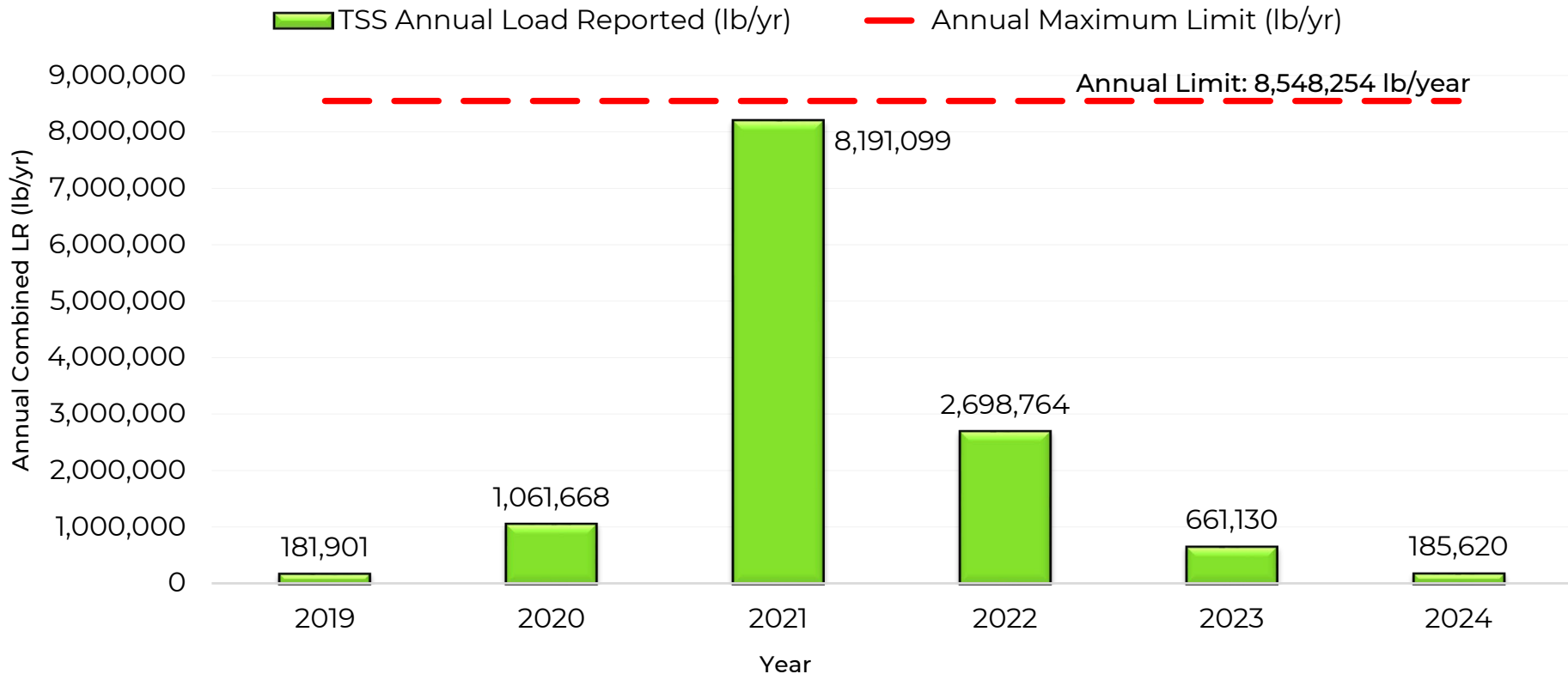


## EFFLUENT LIMIT EXCEEDANCE SUMMARY (1/2019 – 12/2024)

Effluent Parameter	2019	2020	2021	2022	2023	2024
BOD <sub>5</sub>	5	0	16	7	0	0
TSS	0	1	30	13	0	0
pH	0	0	0	2	0	1
E. coli	1	0	3	0	0	0
TP	8	4	67	41	1	0
TN	1	3	8	1	0	0
Total Ammonia N	0	0	12	0	0	0
DO	0	0	0	0	0	0

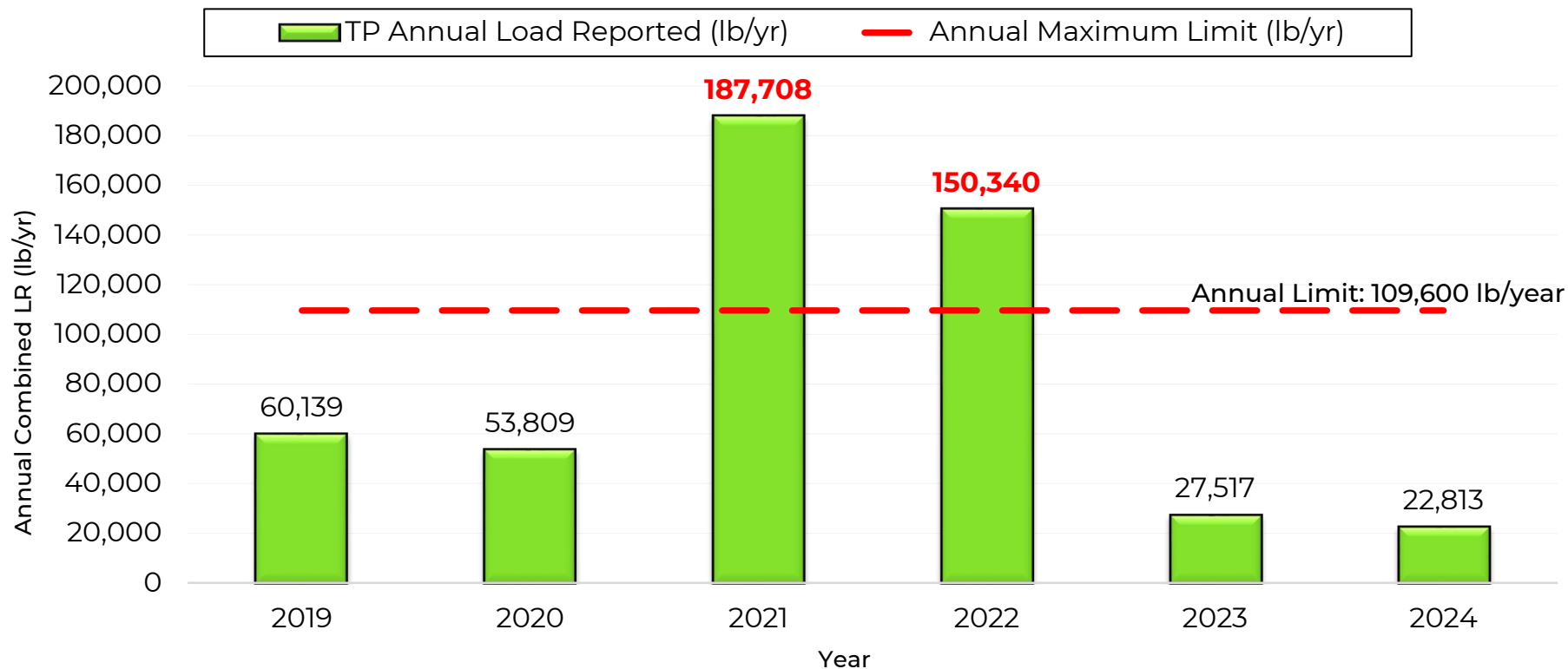


## TSS: ANNUAL LOADING RATE (lb/year) CHESAPEAKE BAY TMDL (180 MGD) (01/2019 - 12/2024)



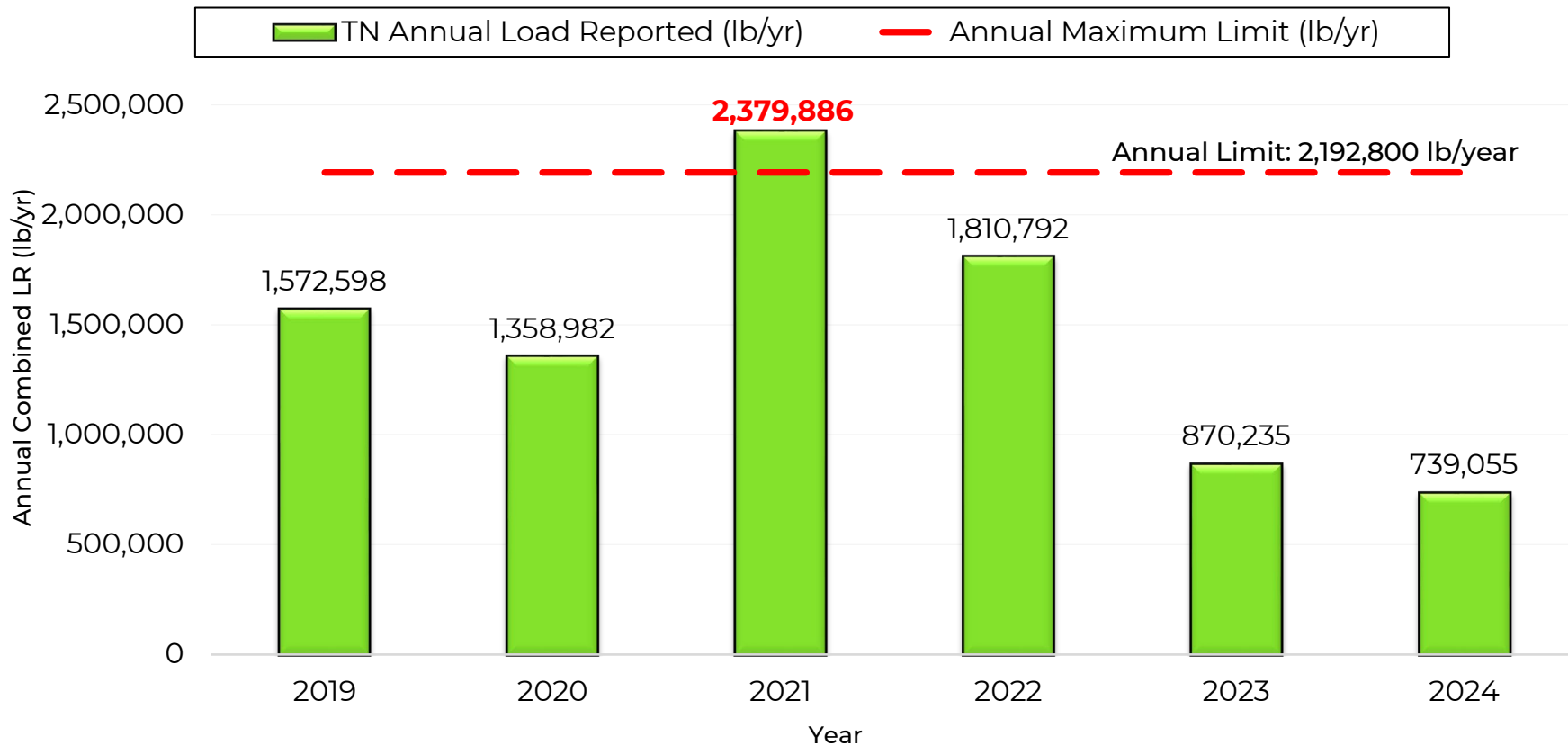


# TOTAL PHOSPHORUS: ANNUAL LOADING RATE (lb/year) CHESAPEAKE BAY TMDL (180 MGD) (01/2019 - 12/2024)





# TOTAL NITROGEN: ANNUAL LOADING RATE (lb/year) CHESAPEAKE BAY TMDL (180 MGD) (01/2019 - 12/2024)





# WHOLE EFFLUENT TOXICITY (WET) LIMIT RESULTS SUMMARY (01/2019 - 12/2024)

## CURRENT PERMIT (15-DP-0581A) REQUIREMENT

❑ Permit allocates the following Whole Effluent Toxicity (WET) limits:

i.  $TU_a = < 1.00$  (*Acute Toxicity Unit*)

ii.  $TU_c = < 1.02$  (*Chronic Toxicity Unit*)

❑ Testing frequency : Quarterly

Toxicity Type	Total Violations					
	2019	2020	2021	2022	2023	2024
$TU_a$	0	1	0	0	0	0
$TU_c$	1	1	2	0	0	2





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# PROPOSED NEW PERMIT REQUIREMENTS



# PROPOSED PERMIT REQUIREMENTS (NEW)

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A. Effluent Limits		
	Requirement	Rationale
1.	BOD & TSS 85% Removal Effluent Limit	Minimum Requirements for Secondary Treatment Standards ( <b>40 CFR 133.102</b> )
2.	Interim & Final Ammonia Limits	Criteria to determine Ammonia toxicity changed from freshwater to estuarine water. <b>COMAR 26.08.02.03-2(J), COMAR 26.08.02.03-2(K)</b>



## PROPOSED PERMIT REQUIREMENTS (NEW), cont'd

### B. Monitoring & Reporting

	Requirement	Rationale
1.	Addition of Monitoring Point 102A prior to splitting of flow between Outfall 001A and Outfall 002A	Improved monitoring and reporting of total flow. Accuracy of Loading calculations for the facility.
2.	Additional monitoring of 24 pollutant parameters	Pollutants exceeding in-stream toxicity criteria during <b>Reasonable Potential (RP) analysis</b> .
3.	Nutrient & Sediment Performance-based credit reporting	Facilitate nutrient trading ( <b>COMAR 26.08.11</b> )
4.	PFAS Testing & Analysis	<b><i>Protecting State Waters From PFAS Pollution Act</i></b> (2024 House Bill 1153 & Senate Bill 956)
5.	PCB Minimization Plan	Compliance with Back River & Baltimore Harbor PCB TMDL requirement
6.	Statistical Threshold Value (STV) criteria-based bacteria monitoring (April – October)	<b>COMAR 26.08.02.03-3</b> EPA Recreational Water Quality Criteria



## PROPOSED PERMIT REQUIREMENTS (NEW), cont'd

C. Maintenance		
	Requirement	Rationale
1.	Climate Change Resiliency Report	Department Policy <a href="#">MDE Climate Change Webpage</a>
2.	ENR Operations and Maintenance (O&M) Guidance Checklist	Department Policy <a href="#">MDE Updated Nutrients Reduction in Wastewaters Strategy Webpage</a>
3.	Lab Certification Recordkeeping	Follow-Up to Consent Decree (24-C-22-000386)
4.	WWTP Operator Licensing & Certification Requirement	Follow-Up to Consent Decree (24-C-22-000386)



# PER-AND POLYFLUORINATED ALKYL SUBSTANCES (PFAS) MONITORING REQUIREMENT

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## PROPOSED REQUIREMENT

- ❑ 4 definitive quarterly sampling events for influent, effluent and biosolids, within 12-months of study plan acceptance.

## RATIONALE

- ❑ Largest wastewater treatment facility in Maryland.
- ❑ Accepts wastewater from 30 Significant Industrial Users (SIUs).
- ❑ Generates "Class-B" Biosolids - used in land application.

## GOAL

- ❑ Characterize the occurrence and concentration of PFAS compounds in plant effluent and biosolids.
- ❑ Safeguard public health and down-stream water quality.

## MDE PFAS IN BIOSOLIDS WEBPAGE

- ❑ <https://mde.maryland.gov/PublicHealth/Pages/PFAS-in-Biosolids-Regulatory-Update.aspx>



# STATISTICAL THRESHOLD VALUE (STV) BACTERIA MONITORING

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## PROPOSED REQUIREMENT

- ❑ Statistical Threshold Value (STV) criteria incorporated as an **Action Level** between **April 1<sup>st</sup> – October 31<sup>st</sup>** to ensure public safety during warm season.
- ❑ STV Action Level for Enterococci = 130 MPN/100 ml

## RATIONALE

- ❑ Geometric Mean (GM) value – calculated as 50<sup>th</sup> percentile – may overlook potential spikes in short term data. Enterococci GM limit is 35 MPN/100 ml.
- ❑ STV – calculated as 90<sup>th</sup> percentile – detects sudden spikes in short term data.
- ❑ Back River and Baltimore Harbor are designated as Use II (non-shellfish harvesting) waters, with water contact recreational use.
- ❑ Past occurrences of high bacteria counts in receiving waters resulting from untreated sewage releases.



# STATISTICAL THRESHOLD VALUE (STV) BACTERIA MONITORING, cont'd

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## **FOLLOW UP ACTIONS**

If the 90<sup>th</sup> percentile value exceeds the Action Level at the end of the calendar month:

- ☐ Notify the MDE Beaches Program and local Health Department within 24 hours.
- ☐ Submit 5-day written report

## **GOAL**

- ☐ Protect primary contact recreation (swimming, boating, etc.) by ensuring timely detection and response.



# EPA ECHO WEBSITE FOR COMPLIANCE INFORMATION

<https://echo.epa.gov/facilities/facility-search?mediaSelected=cwa>

The screenshot shows the EPA ECHO Facility Search page. At the top is the EPA logo and navigation links: Environmental Topics, Laws & Regulations, and About EPA. A search bar for EPA.gov is on the right. Below this is the ECHO logo and the text 'Enforcement and Compliance History Online'. A breadcrumb trail reads 'You are here Home > Facilities > Facility Search - Enforcement and Compliance Data'. The main heading is 'Facility Search - Enforcement and Compliance Data'. Below the heading are links for 'View More Search Options', 'Collapse All', 'Expand All', 'Related Tools', and 'Help'. The search interface is divided into two main sections. The left section, titled 'Search Type', has a dropdown menu set to 'Water' and a 'Choose a Water Program Area' dropdown set to 'None Selected'. Below this is the 'Geographic Location' section with a 'View More' link. It contains dropdowns for 'EPA Region' (set to 'All Regions'), 'City', 'State' (set to 'All States'), 'ZIP Code', and 'County' (set to 'Select a State'). An 'Add More' button is next to the 'State' dropdown. The right section, titled 'Search Criteria Selected', shows a list of selected criteria: 'Search Type' (Water), 'Facility Characteristics' (Permit Status: Effective, Expired, Administratively Continued, Pending, Retired; Permit Type: NPD - NPDES individual Permit, GPC - General Permit Covered Facility, UFT - Unpermitted Facility), and 'Results View' (Interactive Map selected, Data Table unselected). A 'Search' button is at the bottom right of this section.

Use NPDES Number (**MD0021555**) and facility name to query the records.





# MDE WASTEWATER PERMIT SEARCH PORTAL

<https://mdewwp.page.link/WWPPortal>

The screenshot shows the MDE Wastewater Permits Interactive Search Portal. At the top, there is a navigation bar with links to Maryland.gov, Phone Directory, State Agencies, and Online Services. Below this is a header section with the Maryland.gov logo and the Department of the Environment logo. A search bar is located in the top right corner. The main navigation menu includes links to HOME, ABOUT MDE, AIR, LAND, WATER, MARYLANDER, PERMITS, and NEWSROOM. The page title is "Wastewater Permits Interactive Search Portal". Below the title, there is a section for entering search values, including a "Please note" section stating that wild card characters are not supported and that it may take around 30 seconds to return results. The search fields include Facility Name, Address, City, Zip Code, State Num., NPDES Number, County, Watershed, Type, and Status. A "Search" button is located at the bottom right of the search fields.

Maryland.gov Phone Directory State Agencies Online Services

MARYLAND.gov DEPARTMENT OF THE ENVIRONMENT

Search

HOME ABOUT MDE AIR LAND WATER MARYLANDER PERMITS NEWSROOM

## Wastewater Permits Interactive Search Portal

Enter or select search values in one or more text box or dropdown search fields below

Wild card characters are not supported in your search values but partial values are.

**Please note:**  
It may take around 30 seconds to return results

Facility Name:  Address:  City:

Zip Code:  State Num.:  NPDES Number:

County:  Watershed:

Type:  Status:

Search

Use NPDES Number (**MD0021555**) OR State Number (**22DP0581**) to query the records.



# CONTACT INFORMATION

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## **Yen-Der Cheng, Chief**

Municipal Surface Discharge Permits Division  
Wastewater Pollution Prevention & Reclamation Program  
Water and Science Administration  
Maryland Department of the Environment  
Email: [yen-der.cheng@maryland.gov](mailto:yen-der.cheng@maryland.gov)  
Phone: 410-537-3363  
Fax: 410-537-3163

## **Umm-e-hani Iqbal, Natural Resource Planner**

Municipal Surface Discharge Permits Division  
Wastewater Pollution Prevention & Reclamation Program  
Maryland Department of the Environment  
Email: [umm-e-hani.iqbal@maryland.gov](mailto:umm-e-hani.iqbal@maryland.gov)  
Phone: 410-537-3629



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# FORMAL TESTIMONY SESSION

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All testimonies will be part of the public record and considered for the final determination by the Department.

Attendees will be called upon to provide testimony in the following order:

- ☐ Elected officials
- ☐ Representatives of any government agencies
- ☐ Members of the public



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