

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

WATER FILTRATION TREATMENT PLANTS IN CAST

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Top Sediment Discharge Point Sources - Nationwide in 2021

Top SIC Discharges (2021)						
4-Digit SIC Code	SIC Description	Avg Conc (mg/L)	Max Conc (mg/L)	Total Pounds (lb/yr)	Total TWPE (lb-eq/yr)	Avg Flow (MGD)
4911	ELECTRICAL SERVICES	6.10	174	174,449,853	0	26.76
4952	SEWERAGE SYSTEMS	2.86	6,000	36,645,158	0	0.5707
8062	GEN. MEDICAL/SURGICAL HOSPITAL	5.02	12.81	33,670,081	0	750
4581	AIRPORTS, FLYING FIELDS & SER	28.70	1,070	23,260,105	0	3.48
0273	ANIMAL AQUACULTURE	2.77	24	13,305,160	0	2.20
4941	WATER SUPPLY	4.37	636	12,825,228	0	6.45
2631	PAPERBOARD MILLS	75.79	1,923	4,138,896	0	5.13
4785	INSPECTION & FIXED FACILITIE	32.21	350	1,676,698	0	0.1095
0921	FISH HATCHERIES AND PRESERVES	14.65	1,335	1,643,160	0	1.43
2621	PAPER MILLS	55.16	1,564	1,308,317	0	9.20

[Download All Data](#)

CONTEXT

- CONFUSION ABOUT REPORTING ON WATER SUPPLY INTAKES
- WATER FILTRATION TREATMENT PLANTS ARE 4TH LARGEST SEDIMENT POINT SOURCE SECTOR
- ECHO CURRENTLY REPORTS DATA ON 267 DRINKING WATER TREATMENT PLANTS IN THE CHESAPEAKE BAY BASIN
- CAST CURRENTLY INCLUDES 149

ENFORCEMENT AND COMPLIANCE HISTORY ONLINE (ECHO)

- USE EPA'S ENFORCEMENT AND COMPLIANCE HISTORY ONLINE WEBSITE TO SEARCH FOR FACILITIES IN YOUR COMMUNITY TO ASSESS THEIR COMPLIANCE WITH ENVIRONMENTAL REGULATIONS. YOU CAN USE ECHO TO:
 - SEARCH FOR FACILITIES
 - INVESTIGATE POLLUTION SOURCES
 - SEARCH FOR EPA ENFORCEMENT CASES
 - EXAMINE AND CREATE ENFORCEMENT-RELATED MAPS
 - ANALYZE TRENDS IN COMPLIANCE & ENFORCEMENT DATA

ECHO

Water Pollution Search

The Water Pollutant Loading Tool (Loading Tool) is a web-based tool that calculates and reports facility pollutant discharges in pounds per year or by monitoring period based on NPDES permit limit and DMR data.

[Water Pollution Search](#) [Data Downloads](#) [Everyday Searches](#) [Resources](#) [Help](#)

The Water Pollution Search allows users to search for DMR or TRI pollutant discharges and the results provide top-ten lists of the largest surface water discharges. It prioritizes discharges based on total mass and toxicity to help identify discharges that may have the greatest impact on the environment or human health.

Select Search Type

[Help](#)

- Discharge Monitoring Report (DMR)
 Toxics Release Inventory (TRI)

Select Reporting Year

1 Location or Watershed

Nationwide

Search by Location

ZIP Code

EPA Region [\(View EPA Regional Map\)](#)
Select an EPA Region

State
Select a State

County
Select a State

City

Search by Watershed

ZIP Code

Watershed ID (2-Digit to 10-Digit HUC)

Major U.S. Watersheds
Select a Watershed Group

Select a Watershed

Only include facilities that discharge:

- to impaired water bodies
- pollutants contributing to a water body impairment
- to counties or watersheds with [ESA-listed aquatic species](#)

2 Pollutant

All Pollutants

Specify Pollutant

Pollutant Name
Specify Pollutant Name

Chemical Abstract Service (CAS) Number
Specify CAS Number

Pollutant Categories

With calculated loadings

- Nitrogen
- Phosphorus
- Organic Enrichment
- Solids
- Metals
- Clean Water Act Priority Pollutants
- CERCLA Hazardous Substances
- TRI Chemicals
- Radionuclides
- Per- and Polyfluoroalkyl Substances (PFAS)

Without calculated loadings

- Pathogen Indicators
- Temperature
- Wastewater Flow
- General Radioactivity
- Color
- Whole Effluent Toxicity

Only include facilities with effluent limit exceedances

3 Industry

All Point Sources

Publicly Owned Treatment Works (POTWs)

Industrial Point Sources (non-POTWs)

Point Source Category
All Point Source Categories

Industrial Sector ID (2-Digit SIC Code)
All SIC Codes

[SIC Code Lookup](#)

SIC Code (Enter 4-Digit Codes)

2-Digit NAICS Code
All NAICS Codes

Enter 2, 3, 4, 5, or 6-Digit NAICS Code(s)

4 Facility

Facility Name

Facility ID (NPDES, FRS, TRI, or CWWS)

Permit Type
Select a Permit Type

Major/Non-Major Indicator
 Any Major Non-Major

Only include facilities that:

- No Restrictions
- Link to TRI ID(s)
- DO NOT link to TRI ID(s)

FACILITIES IN ECHO, BUT NOT CAST

- ASHBURTON WATER TREATMENT PLANT
- MONTEBELLO FILTRATION PLANT
- R C WILLSON WATER TREATMENT PLANT
- LONACONING RESEVOIR
- MIDLOTHIAN WATER TREATMENT PLA
- FREEDOM DISTRICT WATER TREATMENT PLANT
- SHARPSBURG W W T P
- SEVERN WTP
- FAIRLEE, WORTON, EDESVILLE, KENNEDYVILLE & MILLINGTON WATER SUPPLY SYSTEM
- CAMPUS HILLS WATER WORKS
- CITY OF FROSTBURG WATER SUPPLY SYSTEM
- SOUTH NEW BERLIN WATER SYSTEM WELL FILTRATION FACILITY
- HARRISONBURG WTP
- DAYTON WATER AND WASTEWATER TREATMENT PLANT
- CHURCHVILLE WTP
- PROSPECT HILL SPRINGS WTP
- CUNNINGHAM PROPERTY WATER INFRASTRUCTURE
- CITY OF MANASSAS WATER TREATMENT PLANT
- COYNER SPRINGS WTP
- CACAPON RESORT STATE PK
- TOWN OF FRANKLIN
- BIG SPRINGS WTP
- MOOREFIELD WATER FILTRATION PLANT
- TOWN OF BATH
- CENTRAL HAMPSHIRE PSD GREEN SPRING
- BRANDYWINE WTP
- POTOMAC RIVER WTP
- BAKER WATER TREATMENT PLANT
- CARDINAL MOUNTAIN WATER PLANT
- DEERFIELD VILLAGE WATER PLANT
- THE WOODS I AND II WATER SYSTEM

Why are some water filtration treatment plants not reported in CAST?

TOP SEDIMENT DISCHARGE POINT SOURCES NATIONWIDE 2021


Top SIC Discharges (2021)						
4-Digit SIC Code	SIC Description	Avg Conc (mg/L)	Max Conc (mg/L)	Total Pounds (lb/yr)	Total TWPE (lb-eq/yr)	Avg Flow (MGD)
1442	CONSTRUCTION SAND AND GRAVEL	200	876,594	1,604,175,206,606	0	6.59
3312	BLAST FURN/STEEL WORKS/ROLLING	77.59	24,250	5,096,770,786	0	4.37
4952	SEWERAGE SYSTEMS	5,929	65,981,383	1,495,077,224	0	1.74
4941	WATER SUPPLY	218	4,916,404	1,384,446,655	0	7.69
6515	OPER OF RES MOBILE HOME SITES	327	2,906,299	1,379,161,415	0	4.59
4911	ELECTRICAL SERVICES	12.74	7,203	922,997,527	0	36.53
2015	POULTRY SLAUGHTERING & PROCESS	63.79	6,387	876,021,450	0	1.15
8641	CIVIC, SOCIAL & FRATERNAL ASS.	103	298,169	522,490,690	0	49.92
1499	MISC NONMETAL MINERALS, NEC	8.13	755	493,435,124	0	26.06
7542	CAR WASHES	32.79	13,864	302,654,229	0	6.04

POTOMAC WATER FILTRATION PLANT POLLUTANT LOADING REPORT



- TN: 875,291 LB/YR
- TP: 23,239 LB/YR
- TSS: 8,224,848 LB/YR
- ACCORDING TO ECHO, THE POTOMAC WATER FILTRATION PLANT IS THE TOP POINT SOURCE N, P, AND S CONTRIBUTOR IN THE CHESAPEAKE BAY BASIN
- IT IS NOT INCLUDED IN CAST

POTOMAC WATER FILTRATION PLANT, POTOMAC, 20854-1250

NPDES ID: MD0051586 **Latitude:** 39.04087
FRS ID: 110000576797 **Longitude:** -77.25253
Other NPDES IDs associated with this FRS ID: None **Facility Design Flow (Permit Application) (MGD):** --
TRI ID(s): None **Actual Average Facility Flow (Permit Application) (MGD):** 0.0900
Facility Type: NON-POTW **Average Facility Flow in 2021 (MGD):** 61.82
Permit Type: NPDES Individual Permit **4-Digit SIC Code:** 4941 - WATER SUPPLY
Permit Effective Date: 12/01/2019 **6-Digit NAICS Code:** --
Permit Expiration Date: 11/30/2024 **Likely Point Source Category:** 501 - Drinking water treatment
Major/Non-Major Indicator: Non-Major [View Detailed Facility Report](#)
Permit Issuance: STATE OF MARYLAND [View Effluent Charts](#)
Approved Pretreatment Program: N/A [View Permit Limits and Monitoring Requirements](#)
Combined Sewer Overflow (CSO) Outfall: N/A [View NPDES Monitoring Data Download](#)
County: MONTGOMERY [View DMR and TRI Multi-Year Loading Report](#)
Congressional District: Maryland's 8th District


Select Reporting Year: 2021  [Top Pollutants](#) | [Facility Loading Calculations](#) ⓘ

Top Pollutants by Pounds (DMR, 2021)



Pollutant Name	Total Pounds (lb/yr)	Max Allowable Load (lb/yr) 
Solids, total suspended	8,224,848	
Nitrogen	875,291	
Inorganic Nitrogen	543,694	
Total Kjeldahl Nitrogen	203,781	
Aluminum	107,704	95,973
Iron	25,155	95,973
Phosphorus	23,239	
Manganese	11,535	
Total Residual Chlorine	632	1,956

[Download All Data](#)

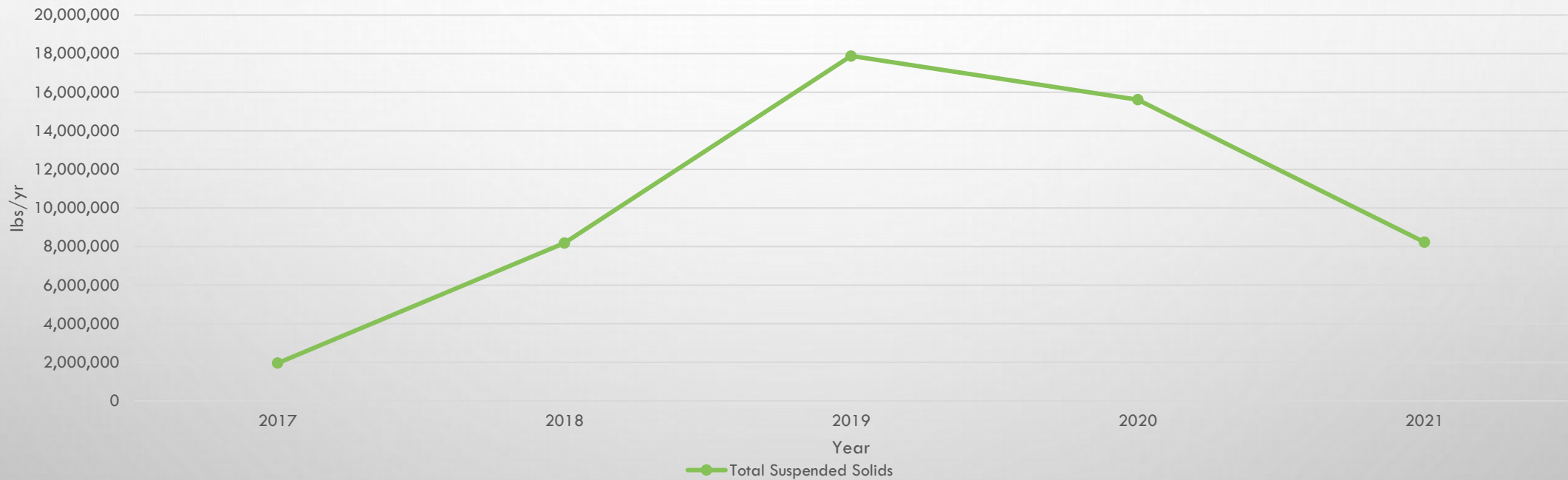
Top Pollutants by Toxic-Weighted Pounds (IWPE) (DMR, 2021)

Pollutant Name	Total TWPE (lb-eq/yr)	Max Allowable Load (lb-eq/yr) 
Aluminum	6,462	5,758
Manganese	1,188	
Total Residual Chlorine	316	978
Iron	141	537

[Download All Data](#)

 - Indicates value contains loads that are calculated using data that has been flagged as potential outliers or data errors.
 - Indicates there was one or more exceedances of permit effluent limits for this pollutant sometime during the year. You can hover over the yellow flag to see the load over limit value.

POTOMAC WATER FILTRATION PLANT SEDIMENT LOADS OVER TIME



Data from Echo, facility not in CAST

2014 CONSENT DECREE ON POTOMAC WATER FILTRATION PLANT (WSSC)

- “A LAWSUIT LED BY EIP ALSO RESULTED IN A MAJOR VICTORY FOR REDUCING POLLUTION IN THE POTOMAC RIVER. IN FEBRUARY 2014, EIP, THE POTOMAC RIVERKEEPER AND CHESAPEAKE BAY FOUNDATION FILED A FEDERAL LAWSUIT AGAINST THE WASHINGTON SUBURBAN SANITARY COMMISSION (WSSC), ALLEGING THAT ITS POTOMAC WATER FILTRATION PLANT WAS ILLEGALLY RELEASING MILLIONS OF POUNDS OF SEDIMENT AND OTHER POLLUTANTS, INCLUDING ALUMINUM, INTO THE “NATION’S RIVER.” THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) JOINED FORCES WITH THE CITIZEN GROUPS. IN A SETTLEMENT THAT BENEFITS ALL PARTIES, WSSC’S BOARD ON 21, 2015, VOTED IN FAVOR OF A CONSENT DECREE THAT SHOULD RESULT IN A MULTI-MILLION DOLLAR OVERHAUL OR REPLACEMENT OF THE PLANT AND ELIMINATE, STARTING IMMEDIATELY, MORE THAN TWO MILLION POUNDS OF POLLUTANTS A YEAR POURING INTO THE RIVER AND CHESAPEAKE BAY.”

TSS LOADS EXAMPLES FROM ECHO

Newport News
City, VA

- Tss: 165,252 lb/yr

Montebello
Filtration Plant,
MD

- TSS: 93,191 lb/yr

FCWA – Lorton
Water Treatment
Plant, VA

- TSS: 39,986 lb/yr

Rocky Pen Run
Water Treatment,
VA

- TSS: 10,938 lb/yr

Town of Franklin,
WV

- TSS: 4,508 lb/yr

Carlisle Water
Trmt Plt, PA

- TSS: 3,290 lb/yr

Washington
Aqueduct Division,
DC

- TSS: 26.88 lb/yr

Do these loads look reasonable?

TSS LOADS EXAMPLES FROM CAST

US Marine Corps, VA

- TSS: 8,826,587 lb/yr

FCWA –

Lorton/Griffith WTP,
VA

- TSS: 1,029,253 lb/yr

PA American Water
Co, PA

- TSS: 214,854 lb/yr

Washington
Aqueduct, DC

- TSS: 210,107 lb/yr

FCWA – Corbalis
WTP, VA

- TSS: 111,822 lb/yr

Lebanon City
Auth/Lebanon Water,
PA

- TSS: 58,143 lb/yr

Do these loads look reasonable?

COMPARISONS

ECHO

CITY OF LYNCHBURG ABERT WATER
FILTRATION PLANT

TSS: 2,236 LB/YR

COLUMBIA WATER COMPANY

TSS: 824 LB/YR

LORTON WATER TREATMENT PLANT

TSS: 39,986 LB/YR

CAST

CITY OF LYNCHBURG ABERT WATER
FILTRATION PLANT

TSS: 2,430 LB/YR

COLUMBIA WATER COMPANY

TSS: 1,434 LB/YR

LORTON WATER TREATMENT PLANT

TSS: 185,475 LB/YR

DIFFERENCE

CITY OF LYNCHBURG ABERT WATER
FILTRATION PLANT

TSS: -194 LB/YR

COLUMBIA WATER COMPANY

TSS: -610 LB/YR

LORTON WATER TREATMENT PLANT

TSS: -145,489 LB/YR

Why is ECHO different than CAST?

QUESTIONS

- ARE ALL STATES INCLUDING WATER FILTRATION TREATMENT PLANTS IN THEIR ANNUAL REPORTING?
 - IF NOT, WHY?
- ARE THESE ALL OF THE WATER FILTRATION PLANTS?
 - IF NO, WHY ARE SOME WATER FILTRATION TREATMENT PLANTS NOT REPORTED IN CAST?
- DOES THIS LOOK REASONABLE IN TERMS OF LOADS?
- WHY IS ECHO DIFFERENT THAN CAST?
- WHAT ACTIONS CAN WE TAKE TO HELP REDUCE LOADS?

REFERENCES

- [HTTPS://ECHO.EPA.GOV/TRENDS/LOADING-TOOL/WATER-POLLUTION-SEARCH/RESULTS/?S=102B3B5EFD1DF0D9992C2EDE1CEE8B9E49F2B2A](https://echo.epa.gov/trends/loading-tool/water-pollution-search/results/?s=102B3B5EFD1DF0D9992C2EDE1CEE8B9E49F2B2A)
- [HTTP://WWW.ENVIRONMENTALINTEGRITY.ORG/WP-CONTENT/UPLOADS/2016/11/ANNUAL-REPORT-2014-2015.PDF#:~:TEXT=IN%20FEBRUARY%202014%2C%20EIP%2C%20THE%20POTOMAC%20RIVERKEEPER%20AND,OTHER%20POLLUTANTS%2C%20INCLUDING%20ALUMINUM%2C%20INTO%20THE%20%E2%80%9CNATION%E2%80%99S%20RIVER.%E2%80%9D](http://www.environmentalintegrity.org/wp-content/uploads/2016/11/annual-report-2014-2015.pdf#:~:text=IN%20FEBRUARY%202014%2C%20EIP%2C%20THE%20POTOMAC%20RIVERKEEPER%20AND,OTHER%20POLLUTANTS%2C%20INCLUDING%20ALUMINUM%2C%20INTO%20THE%20%E2%80%9CNATION%E2%80%99S%20RIVER.%E2%80%9D)
- [HTTP://WWW.ENVIRONMENTALINTEGRITY.ORG/WP-CONTENT/UPLOADS/2016/11/ANNUAL-REPORT-2014-2015.PDF#:~:TEXT=IN%20FEBRUARY%202014%2C%20EIP%2C%20THE%20POTOMAC%20RIVERKEEPER%20AND,OTHER%20POLLUTANTS%2C%20INCLUDING%20ALUMINUM%2C%20INTO%20THE%20%E2%80%9CNATION%E2%80%99S%20RIVER.%E2%80%9D](http://www.environmentalintegrity.org/wp-content/uploads/2016/11/annual-report-2014-2015.pdf#:~:text=IN%20FEBRUARY%202014%2C%20EIP%2C%20THE%20POTOMAC%20RIVERKEEPER%20AND,OTHER%20POLLUTANTS%2C%20INCLUDING%20ALUMINUM%2C%20INTO%20THE%20%E2%80%9CNATION%E2%80%99S%20RIVER.%E2%80%9D)