



Potomac Interceptor Collapse

Virginia DEQ Water Quality Monitoring Response

Mike Rolband, PE, PWD, PWS Emeritus
Director

March 19, 2026

DEQ's Roles In Pollution Response

- Investigation and response
- Collection of environmental data



DEQ's Special Water Quality Monitoring Initiative

Monitoring Locations

- Virginia shoreline
- Virginia embayments
- River mainstem
- Select Maryland shoreline locations

Bacteria Tested

- *E. Coli*
- Enterococci
- Fecal coliform

Partners

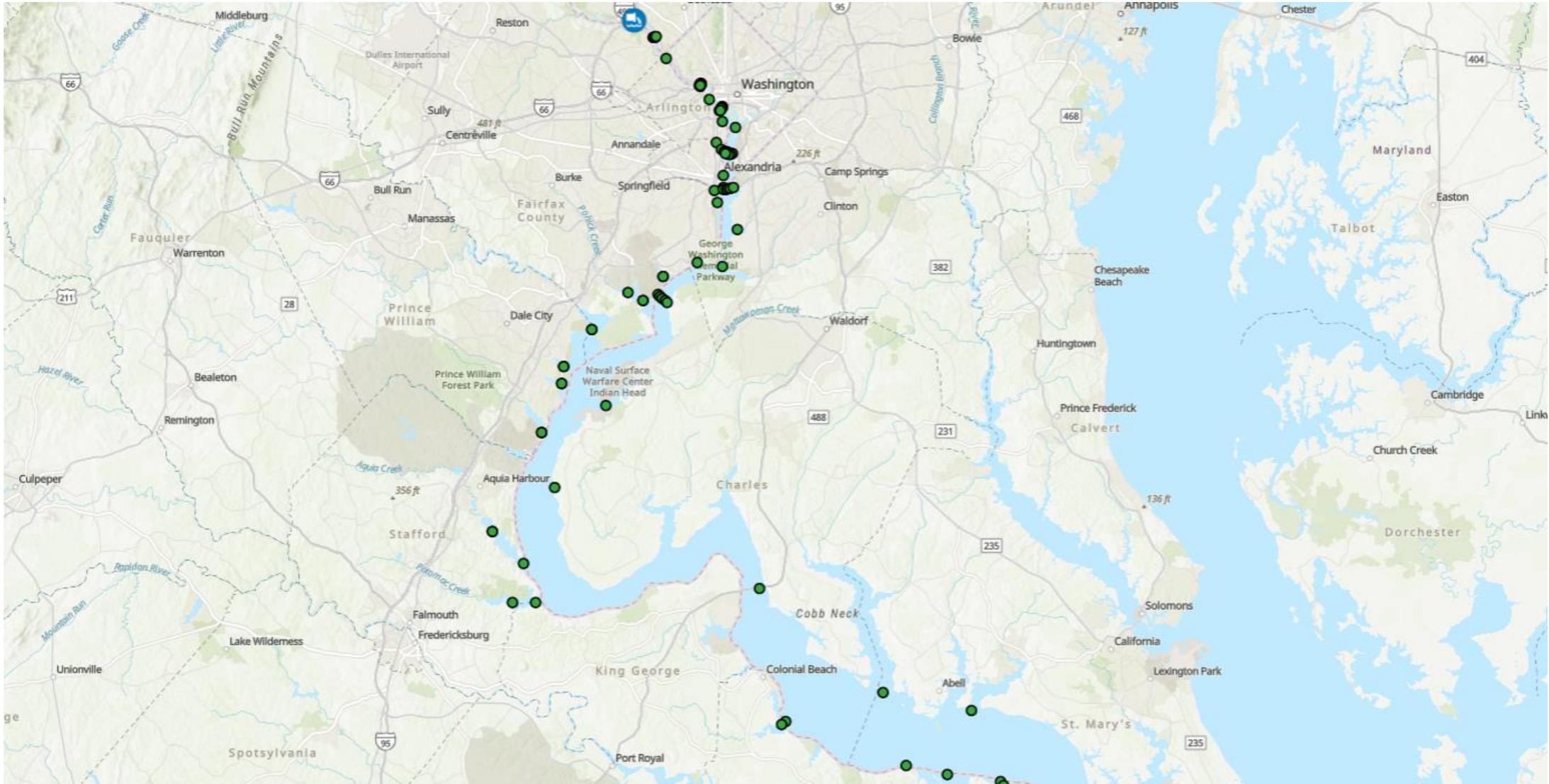
- Virginia Department of Health
- AlexRenew
- Va Department of Consolidated Laboratory Services
- EnviroScience Inc

Water Type	Indicator Bacteria	Threshold
Freshwater (upstream of Quantico)	<i>E. coli</i>	410 MPN/100 mL
Transitional/Saltwater (near Quantico & below)	Enterococci	130 MPN/100 mL

DEQ Sampling Timeline

- Feb. 13** ● VDH issued recreation advisory for Virginia residents along the Potomac River
- Feb. 17** ● DEQ conducted bacteria sampling – 25 locations along ~49 miles from Chain Bridge to mouth of Potomac Creek
- Feb. 25** ● DEQ sampled 9 Virginia embayments; contractor began transect sampling at multiple locations
- Feb. 26–27** ● DEQ contractor completed transect sampling and additional surface water sampling
- Mar. 5** ● VDH partially lifted their recreation advisory - from Route 120 Chain Bridge to Harry W. Nice Memorial Bridge (US 301)
- Mar. 9** ● DEQ sampled 3 Virginia embayments (301 Bridge to Coles Point) and 3 river transects: Key Bridge, 14th St Bridge, Daingerfield Island
- Mar. 12** ● DEQ posted results from Mar. 9 – all *E. coli* results below 100 CFU/100 mL; southern embayments below detection limits (10 CFU/100 mL for *E. coli* and Enterococci)

DEQ Sampling Locations



March 9 Water Sampling Results

E. coli

< 100
CFU/100 mL

THRESHOLD
410 CFU/100 mL



E. coli results at all transect locations
(Mar. 9 sampling)

Enterococci

< 10
CFU/100 mL

THRESHOLD
130 CFU/100 mL



E. coli & Enterococci in southern
embayments
(below detection limit)

Fecal Coliform

<15
CFU/100 mL

THRESHOLD
31 CFU/100 mL



VDH routine seawater sampling in
Virginia southern Potomac River
embayments - for shellfish growing
area classification

⚠ VDH Advisory Status (as of March 17, 2026): All VDH recreation advisories lifted

Nutrient & Sediment Loading Analysis

Based on 243.5 million gallons of sewage discharged, DEQ estimated pollutant loads using AlexRenew wastewater data

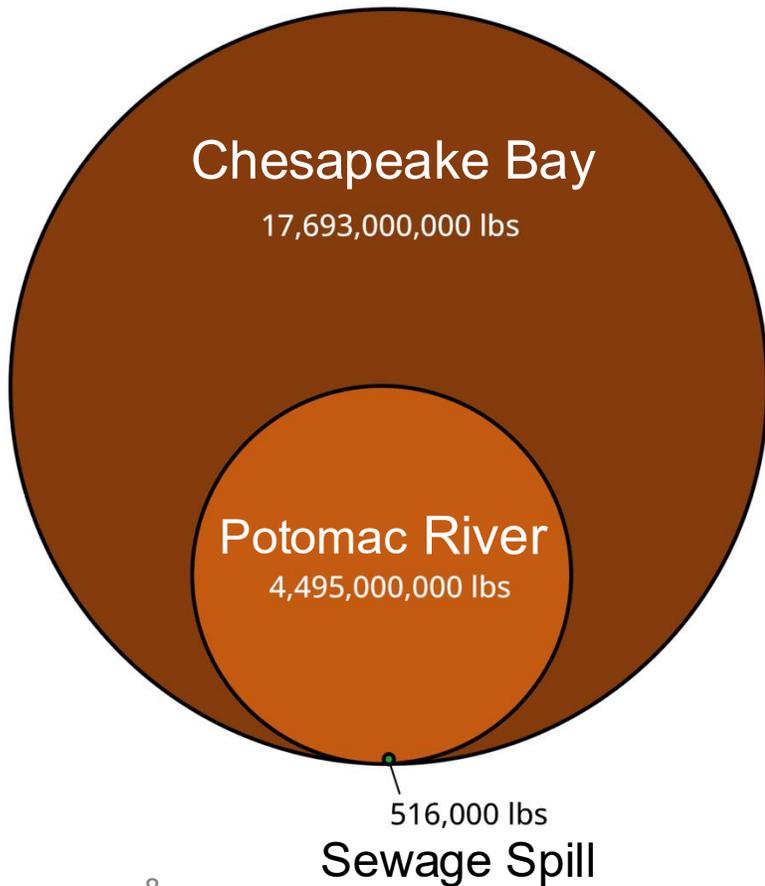
Parameter	Spill Load (lbs)	2025 Potomac Annual Load (lbs)	2025 Bay Annual Load (lbs)	% of Potomac Loads	% of Bay Loads
Total Nitrogen	87,000	51,000,000	237,800,000	0.2%	0.04%
Total Phosphorus	11,000	3,300,000	13,200,000	0.3%	0.09%
Sediment	516,000	4,495,000,000	17,693,000,000	0.01%	0.003%

Key Finding:

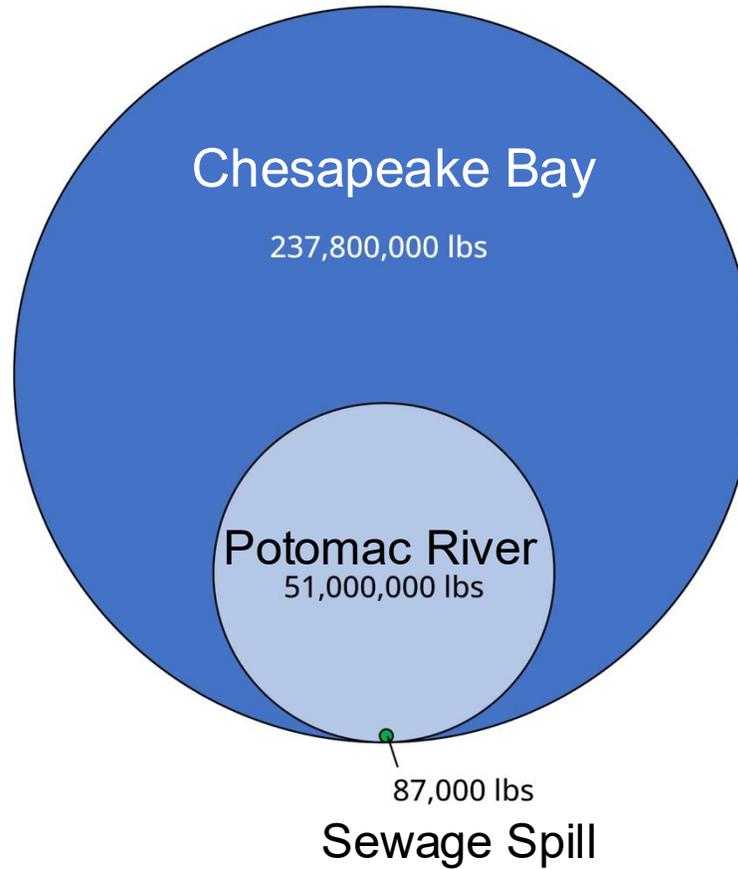
The additional sediment and nutrient loading from the Potomac Interceptor sewage spill equates to less than ½ percent of the 2025 annual loading to the Potomac River. Bacterial modeling by ICPRB predicts return to near-background levels within ~10 days after the end of discharge.

Nutrient & Sediment Loading Analysis (graphical)

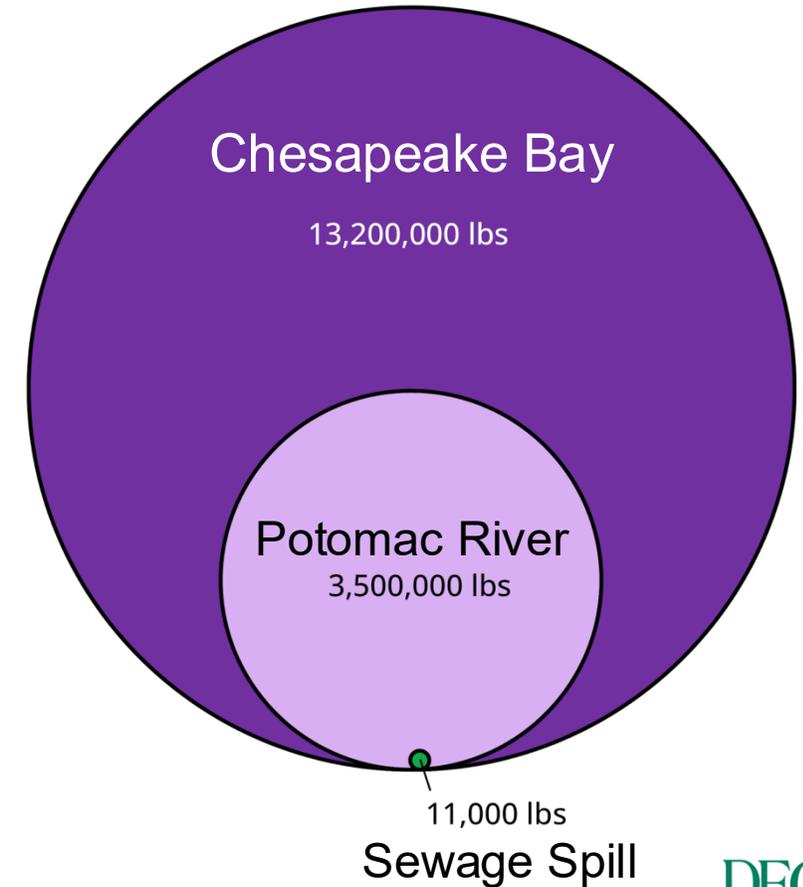
Sediment



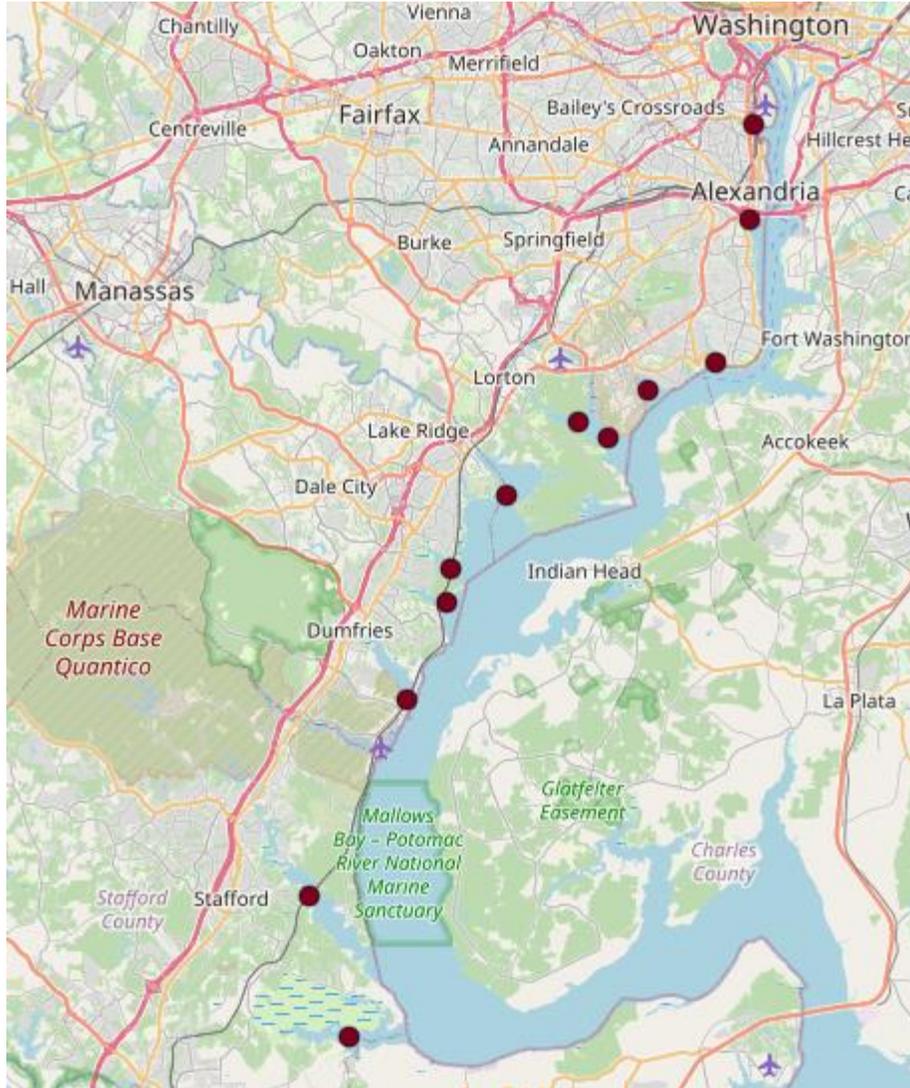
Total Nitrogen



Total Phosphorus



DEQ Routine Potomac River Embayment Sampling



Stream/Bay Name	Sampling Location
Four Mile Run*	G.W. PKWY Bridge
Hunting Creek*	G.W. PKWY Bridge
Little Hunting Creek*	G.W. PKWY Bridge
Dogue Creek	Across from yacht club
Pohick Creek	Across from Brick House
Pohick Creek	Off Gunston Hall
Occoquan River (Belmont Bay)	Near red daymarker #5
Neabsco Creek	Railroad (RR) bridge
Powells Creek	100 yds up from RR bridge
Quantico Creek	100 yds up from RR bridge
Aquia Creek	Downstream of RR bridge
Potomac Creek	Downstream of RR bridge

*Sampled every other month

QUESTIONS?

