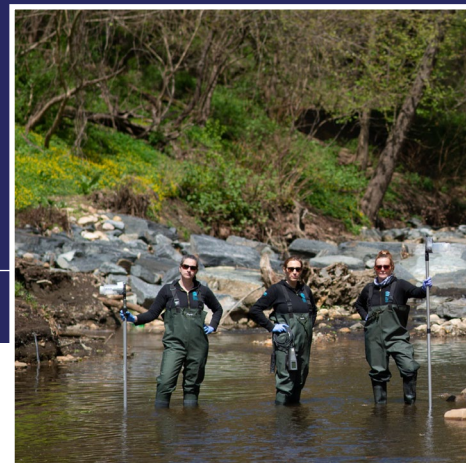


Monitoring Data Plugs Waste Water Treatment Plant Violation Streak

BLUE WATER BALTIMORE



In 2021, two wastewater treatment plants in Baltimore County watersheds have operated in non-compliance to their Clean Water Act permits for more than a year. The Blue Water Baltimore's staff-scientist-led weekly monitoring program documented these exceedances and used the data to collaborate with Chesapeake Legal Alliance to file notices to sue with the City of Baltimore. The monitoring program's baseline data provided critical defensible evidence of the extent of the violations. BWB credits attributes their program's extensive reach and reliability not only to a strong study design but also reliable technical services that allows staff scientists to trade desk time

Will wastewater treatment plant non-compliance stop before legal action is taken?

In spring of 2021, Blue Water Baltimore's water quality monitoring program detected unusually high bacteria levels in the Harbor in the vicinity of the Patapsco Wastewater Treatment plant effluent discharge. BWB alerted the Maryland Department of the Environment which triggered site visits by enforcement officers.

These visits revealed ongoing, significant violations. For more than a year, Back River and Patapsco Wastewater Treatment Plants have been in significant non-compliance with their Clean Water Act permits, including many months of ongoing violations of fecal bacteria, nitrogen, phosphorus, and other water quality permit limits. These violations not only threaten public health but also put in jeopardy the state's ability to reach goals under the Chesapeake Bay cleanup agreement. The two plants are discharging, in some cases, over 400% of their allowed permit limits.

Thanks to baseline data collected during Blue Water Baltimore's ongoing monitoring program, the Chesapeake Legal Alliance delivered letters notifying Baltimore City and the Maryland Department of the Environment of their intent to bring a lawsuit to address the chronic violations of these plants if economically effective, sustainable solutions are not achieved. The

action was taken in order to protect the rights of all residents of Baltimore City under the federal Clean Water Act and to preserve the necessary legal options for ensuring public involvement and oversight in resolving violations.

BWB's monitoring program has prevented the further degradation of a water body that so many have worked so hard to restore. Their data-driven advocacy and litigation efforts demonstrate the power that investing in community science monitoring programs can have on connecting with the public while protecting our water resources.



Role of the Monitoring Program

Two critical components form the foundation for addressing this problem. First, without the rigorous, weekly monitoring performed by staff scientists at Blue Water Baltimore, the extent of the violations would lack verifiable, data-driven evidence, making the case harder to hold up in court. Second, the Clean Water Act's avenues to protect the water rights of all citizens provide multiple opportunities to utilize the data to ensure that valid remediation efforts are deployed to correct the discharges immediately.



About Blue Water Baltimore

Blue Water Baltimore, the home of the Baltimore Harbor Waterkeeper, developed an ambient water quality monitoring program to collect scientifically-rigorous and legally-defensible water-quality data using the Mid-Atlantic Tributary Assessment Coalition (MTAC) protocol. The administration and management of the monitoring program are the responsibility of the Baltimore Harbor Waterkeeper and the staff Water Quality Scientist

Blue Water Baltimore's mission is to restore the quality of Baltimore's rivers, streams, and Harbor to foster a healthy environment, a strong economy, and thriving communities. They work to protect and restore Baltimore Harbor and the greater Patapsco River and its tributaries through advocacy, enforcement, restoration, education, and engagement to make our waters suitable for fishing and swimming, improve public health, and improve the health of the river ecosystem.



Nexus to WDC

The team manages data in Water Reporter, a Water Data Collaborative sponsored software service platform that streamlines data collection, management, analysis, and visualization. The system not only promotes the portability of data sets that are machine readable and multi-stakeholder accessible but also analyzes data in real time. Thanks to the reliance on a cloud-based management system the staff scientists are able to collect data from more sites because they can spend less desk time sorting through raw data. Finally, because of the rigorous data management standards upheld by the BWB staff, they can monitor water quality in real time - resulting in faster discovery of violations and, ultimately, responses to address the issue because catastrophic crises arise.



Grant Funding



Distributed Data Management

photo credit: Will Parson, Chesapeake Bay Program

Use Case Summarized by
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