

UPGRADING WASTEWATER TREATMENT IN VIRGINIA

Jamie Brunkow // James River Association // jbrunkow@thejamesriver.org
Joe Wood // Chesapeake Bay Foundation // jwood@cbf.org

EXECUTIVE SUMMARY

Enhanced efforts are needed to upgrade Virginia's wastewater facilities and to address the public health risk of combined sewer overflows from aging wastewater infrastructure. Upgrades to wastewater facilities are a proven strategy for benefiting water quality and reducing large quantities of pollution. Virginia's wastewater agencies have played a major role in reducing nutrient pollution to date, but they have been asked to accelerate this important work in the Phase III Watershed Implementation Plan (Phase III WIP) and through recent legislation requiring upgrades to wastewater treatment and to remaining combined sewer overflow (CSO) systems. Virginia needs to support these programs to continue protecting water quality and public health.

CHALLENGE

In the last decade and a half, many of Virginia's wastewater treatment plants have adopted upgraded nutrient removal technology to significantly reduce the pollution discharged to local rivers and the Bay. Additionally, a bill passed in 2017 required the City of Alexandria to remediate its CSO system by 2025, and the General Assembly has appropriated \$50 million to meet this deadline.

We are now seeing the beginnings of a remarkable, though still fragile, recovery of our local streams, rivers, and Chesapeake Bay — increased water clarity and quality, and thousands of acres of thriving aquatic grasses. These signs of success are attributable to the hard work of the wastewater agencies and the localities they serve, but also thanks to the Commonwealth's long-term financial commitment to the program, reflected in sustained funding for matching grants to upgrade nutrient pollution reduction capabilities.

The work is not complete, however. Our watersheds have more people, fewer forests, and are facing climate change. As a result, Virginia and regional partners will have to enhance efforts to meet the goal of a restored Bay. Virginia's plan to do so is set out in the Blueprint for clean water, which addresses the work needed by all sectors. Further, Virginia must rise to the challenge of addressing its largest CSO system located in the City of Richmond, where 24.5% of residents are below the poverty line¹ and already pay some of the highest wastewater rates in Virginia.

Virginia's largest Combined Sewer Overflow system is located in the City of Richmond, where 24.5% of residents are below the poverty line and already pay some of the highest wastewater rates in Virginia.

SOLUTION

The General Assembly placed Richmond on a timeline to remediate its CSO system by 2035 through legislation (SB1064) passed in 2020. In 2021, the Enhanced Nutrient Removal Certainty Program (HB 2129/SB1354) was established, which will ensure Virginia achieves the wastewater treatment technology upgrades necessary to meet the Blueprint goals. Still, the funding to implement these projects is critical to accomplishing these goals.

Not only will more complete wastewater treatment revitalize the Bay and its tributaries, but it will ensure that communities across the Commonwealth will more equitably receive the benefits of clean water in their own communities. Rural communities, especially rural communities of color, "have long faced challenges with toxic water due to insufficient water infrastructure," while low income ratepayers in urban areas struggle to afford wastewater and drinking

water improvements.² State investment will help these communities maintain and improve aging infrastructure, prevent local water quality problems like toxic algae, and create jobs for skilled workers.³

Based on Virginia's latest needs assessment for the wastewater sector, Virginia will require an additional \$150 million at least to meet our goals under the Chesapeake Bay Blueprint. Implementing Richmond's interim plan to remediate its CSO system will also require significant state investment to supplement local ratepayer-generated fees.

CONCLUSION

Virginia legislators have enacted a suite of programs along with consistent funding through the Water Quality Improvement Fund to help the wastewater sector cost-effectively reduce pollution to Virginia's waterways. The General Assembly has also assisted localities with remediating aging CSO systems, once again making local rivers swimmable and fishable. Virginia must remain committed to this work by ensuring robust and sustained funding for continued modernization of the Commonwealth's wastewater infrastructure.

POLICY RECOMMENDATIONS

Provide at least \$150 million per the Wastewater Needs Assessment for upgrading the nutrient pollution reduction capabilities of significant wastewater facilities discharging to the Chesapeake Bay and tributaries.

Defend against any legislation that would prevent the Department of Environmental Quality from implementing wastewater treatment plant upgrades as called for in Virginia's Chesapeake Bay Blueprint

Provide state resources to help Richmond fully address its CSO system, an estimated cost of \$883 million, as required by SB1064 (2020).

Domestic & Wildlife on the River - Accomack, Va
Image credit: Charlie Vaughan

