

CLOSING THE WASTEWATER GAP

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WHY IT MATTERS

Over the last 15 years, Virginia has made significant progress in reducing nutrient pollution through major wastewater treatment plant upgrades. These improvements, backed by state and local investments, have driven cleaner rivers, clearer water, and stronger recovery in the Chesapeake Bay. However, on the whole, there are still important opportunities to address pollutants from the wastewater sector.

The Commonwealth's Phase III Watershed Implementation Plan laid out a clear path forward, but some localities remain below their pollution reduction targets. Inflation, delayed projects, and competing needs make state follow-through more urgent than ever, and underscore the importance of existing initiatives like the Enhanced Nutrient Removal Certainty Program (ENRCP) in keeping progress moving forward.

At the same time, the state capital, Richmond, is still facing ongoing pollution from its outdated combined sewer systems, which sends untreated wastewater into rivers during rainfall events; these discharges are called combined sewer overflow (CSO) events. State deadlines are in place, but without meaningful financial assistance, Richmond, with a poverty rate near 20% and the highest wastewater bills in the state, is struggling to stay on track. Fortunately, Virginia's two other combined sewer system localities, Alexandria and Lynchburg, have recently completed projects, with state support, to address combined sewer overflows in their communities.

Beyond urban areas, failing and poorly maintained septic systems continue to leak nutrient pollutants and fecal bacteria into groundwater and local waterways, compounding the problem.

To meet its clean water commitments, Virginia must double down on wastewater pollution control: fund the already identified projects in the ENRCP, provide clear incentives for facilities to optimize performance, and support communities struggling with outdated systems. The science is clear, the solutions are known, and success depends on the state's continued leadership.

CURRENT LANDSCAPE

Since its inception in 2021, the ENRCP has been Virginia's strongest tool to secure nutrient pollution reductions at wastewater treatment facilities. Through mandates, financial support, and planning certainty, it moves major wastewater treatment plants (WWTPs) closer to full compliance with necessary nitrogen and phosphorus pollutant standards

and strengthens the Commonwealth's overall strategy for restoring the Chesapeake Bay.

The facilities in the ENRCP have known upgrade timelines, but the funding to carry them out is not secured. The Commonwealth has provided funding for upgrades through the Water Quality Improvement Fund (WQIF) and, more recently, with federal American Rescue Plan Act funds. However, future funding commitments are uncertain, and the WQIF is currently under review by direction of the General Assembly, with a report due by November 1, 2026.¹

For Richmond's combined sewer system, the City received a Virginia Department of Environmental Quality (DEQ)-approved final plan detailing the projects necessary to virtually eliminate combined sewer overflows and bring the system into compliance.² This final plan outlines 14 projects, with 12 having already allocated funding, many of which are in development currently, as well as two outstanding projects, which will further reduce CSO releases by over 90% of their current levels; these two final plan projects require an additional \$550 million to ensure completion.

Additionally, DEQ operated a point-source pay-for-performance grant program to further optimize nutrient removal at existing wastewater treatment plants. Piloted in 2023, the program funded 14 facilities that achieved reductions beyond permit limits, removing over 118,000 pounds of nitrogen at an average cost of \$8.44 per pound.³ Though minimally funded, this effort delivered measurable results by incentivizing reductions that wouldn't have occurred under standard compliance, demonstrating the value of performance-based investment in water quality.

OPPORTUNITIES

Virginia's ENRCP is a proven strategy for achieving lasting reductions in wastewater pollution and restoring the Chesapeake Bay. With enforceable nutrient limits, clear deadlines, and strong bipartisan support, the program delivers measurable water quality improvements at scale. Yet, without continued funding, essential projects risk delay, putting compliance, equity, and environmental progress in jeopardy. To protect the state's clean water investments and meet long-standing restoration goals, Virginia must fully fund the ENRCP through completion.

Richmond's Combined Sewer Overflow (CSO) Final Plan lays out an achievable path to drastically reduce untreated discharges into the James River. Two critical projects, the Shockoe High Rate Disinfection Facility and the Southside Canoe Run Storage Tank,

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both with outsized impacts on water quality in the river, remain unfunded and are essential to meeting state-mandated deadlines. Delayed investment in these projects risks prolonging public health concerns, burdening overstretched ratepayers, and undermining decades of progress in water quality. The Commonwealth must partner with Richmond to deliver the funding needed to stay on track and complete the plan.

Virginia has more opportunities to improve water quality as well, by scaling up programs with proven results and targeting communities most in need. DEQ's 2023 pay-for-performance pilot demonstrated that modest investments can yield substantial nutrient reductions beyond regulatory requirements. Further, supporting households and communities with limited financial resources facing failing septic systems through sewer line hook-ups is a common-sense investment that, alongside proven performance programs, can drive cost-effective and equitable progress toward Virginia's clean water goals.

TOP TAKEAWAYS

Continuing investment in Virginia's wastewater treatment infrastructure, through the Enhanced Nutrient Removal Certainty Program, is fundamental to maintaining our water quality progress.

Richmond has a DEQ-approved final plan to address combined sewer overflows in the James River, but needs \$500m over the next 4 years to reach the finish line.

A diversity of investment in wastewater issues, including addressing septic system pollution and utilizing existing infrastructure through the point-source pay-for-performance program, will yield meaningful water quality benefits for Virginians.

ENDNOTES

1. Senate Finance and Appropriations Committee. (2025). Item 358 #1s: Water Quality Improvement Fund workgroup [Budget amendment]. In 2025–2026 Virginia biennium budget. Virginia General Assembly.
2. Brown & Caldwell. (2024, May 30). *Combined sewer system final plan 2024*. Richmond Department of Public Utilities. <https://rvah2o.org/wp-content/uploads/2024/08/Combined-Sewer-System-Final-Plan-2024.pdf>
3. Virginia Secretary of Natural and Historic Resources (2024). *2024 Chesapeake Bay and Virginia waters clean-up plan*. Reports to the General Assembly. <https://rga.lis.virginia.gov/Published/2025/RD249/PDF>