Plain Language Guide

Third Term Chesapeake Bay TMDL Action Plan
City of Richmond Department of Public Utilities

What is this about?

The City of Richmond (City) Department of Public Utilities (DPU) has prepared a Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan to show how the City will reduce nutrient runoff from the City's municipal separate storm sewer system (MS4) to protect local streams and the James River, as required under the City's integrated Virginia Pollutant Discharge Elimination System (VPDES) Permit. This is the third of three Chesapeake Bay TMDL action plans required by the VPDES Permit. The 2023–2028 Action Plan documents required reductions, credits from projects (called best management practices or BMPs) already completed, and two new projects that will be constructed to achieve the remaining reductions required in this permit term. The Action Plan also provides for a 15-day public comment period on the additional projects proposed in this term before the plan is finalized and submitted to the Virginia Department of Environmental Quality (DEQ).

★ *This plain language guide summarizes the Action Plan. The complete text is available for review at the DPU Director's Office (730 E. Broad Street) and on the DPU MS4 website. You are welcome to comment before the plan is finalized — see the contact information at the bottom of this guide.*

PART 1: Understanding the Chesapeake Bay TMDL Program

1. What is the Chesapeake Bay TMDL?
    a. Pollutants, including nutrients and sediment, from the tributaries to the Chesapeake Bay (Bay) can cause murky water, algae blooms, and low levels of dissolved oxygen in the Bay, harming the Bay and the aquatic life within it.
    b. The Chesapeake Bay TMDL is a Bay-wide "pollution diet" that requires jurisdictions to reduce nutrients discharged to waterways.
    c. See the EPA fact sheet on the Chesapeake Bay TMDL for more information: https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-fact-sheet
2. What is the City's role under the Chesapeake Bay TMDL?
    a. Stormwater from the City's neighborhoods, roads, parks, and business areas eventually flows into creeks, the James River, and ultimately the Chesapeake Bay. This stormwater can carry nutrients and sediment that affect water quality.
    b. Like other municipalities in Virginia whose stormwater reaches the Bay, the City is required by the TMDL (via Virginia DEQ's Phase III Watershed Implementation Plan) to reduce the amount of nutrients that the City releases into the James River.
    c. As part of its VPDES Permit, the City is required to produce a Chesapeake Bay TMDL Action Plan laying out how the City will meet its required pollutant reductions for the City's MS4.

3. What does the City's Action Plan include?
    a. The plan maps directly to permit requirements and documents:
        i. New or modified legal authorities (if any);
        ii. Load and cumulative nutrient reduction calculations for the City's MS4 area;
        iii. Total nutrient reductions achieved as of November 1, 2023;
        iv. BMPs implemented before November 1, 2023;
        v. BMPs to be implemented in the third permit term; and
        vi. Public comments summary and responses (to be inserted after the comment window closes).
4. Who administers the plan?
    a. DPU prepared and administers the plan per the City's integrated VPDES Permit. The final Action Plan must be submitted to DEQ no later than August 31, 2026.

PART 2: Pollution Reduction Requirements

5. What nutrients does the City need to reduce from its stormwater?
    a. In previous permit terms, the City was required to reduce the amounts of nitrogen (TN), phosphorus (TP), and total suspended sediment (TSS) in the stormwater discharging from the MS4. However, due to the success of Virginia localities at reducing TSS, TSS reduction requirements were removed from the third term action plan requirements for all Virginia MS4 permittees.
6. How did the City calculate its required nutrient reductions?
    a. Start with the "baseline" year (2009): The City first identified the MS4 area it is responsible for (the MS4 service area) and estimated what the landscape looked like in 2009 (how much was paved versus vegetated). That 2009 snapshot is the starting point for all calculations.
    b. Use permit-set pollution rates: The City's VPDES permit provides standard pollution rates for the region (how much nitrogen and phosphorus typically run off from paved and unpaved areas). Applying those rates to the 2009 snapshot tells us how much pollution was coming from "existing developed land."
    c. Apply the state's reduction goals: The permit also sets the targets—how much of that pollution needs to be reduced over the permit terms. Those targets (sometimes referred to as the "L2 reductions") are applied to the 2009 baseline to determine the required cuts from existing development in this term.
    d. Account for growth since 2009 ("new sources"): Next, the City looks at how development changed since 2009, calculates how that change affected runoff, and subtracts any project credits already earned in that period to find the remaining "net" increase that must be fully offset in this term.
    e. Check "grandfathered" projects: The permit requires extra offsets if any post-2014 projects were designed under older rules that allow more runoff. The City's local requirements from 2009 mean the City doesn't expect additional reductions from these "grandfathered" cases in this term.
    f. Add it all up for this permit term: Finally, the City adds the reductions from existing development, the reductions for new sources, and the reductions for grandfathered projects, to get the total amount that must be achieved by the end of this permit term. The Action Plan then shows the projects (BMPs) that will deliver those cuts.

7. When is the City's deadline to meet its required nutrient reductions?
    a. 2013–2018 (Term 1): The City was required to achieve 5% of the total Chesapeake Bay nutrient-reduction target, and met that goal.
    b. 2018–2023 (Term 2): The City was required to achieve an additional 35% (bringing the cumulative total to 40%) and met that goal.
    c. 2023–2028 (Term 3): The City must deliver the remaining 60% (reaching 100% of the required reductions) by the end of the permit term.

PART 3: Past Projects and Progress Achieved (through November 1, 2023)

8. What projects has the City already completed?
    a. Before the start of the current term, the City completed multiple water-quality projects and retrofits that substantially reduced TN and TP loads, including:
        i. Maury Cemetery Stream Restoration
        ii. Cherokee Lake Wet Pond Enhancement
        iii. Forest Hill Park Wet Pond Retrofit
        iv. Little Westham Creek Stream Restoration
        v. Pocosham Creek Stream Restoration
9. How do these projects reduce pollutants?
    a. Stream restoration repairs damaged creeks by stabilizing eroding banks, reconnecting floodplains, fixing problem outfalls, and replanting native vegetation so the stream runs cleaner and more like a healthy river corridor. These changes cut the sediment and nutrients carried downstream, while also improving local parks, trails, and wildlife habitat (examples in the City include Maury Cemetery, Little Westham Creek, and Pocosham Creek).
    b. Wet pond upgrades add features like a forebay, better flow controls, and dredging/reshaping so stormwater slows down and pollutants settle out before water leaves the site. After enhancement, ponds capture more sediment and nutrients and perform to modern standards (the City's Cherokee Lake and Forest Hill Park projects are examples of these improvements).

PART 4: Proposed BMPs for the 2023–2028 Permit Term

10. What are the City's newly proposed BMPs?
    a. Pine Camp Creek Stream Restoration (Completed; credited in this term)
        i. What it is: Restoration of 1,694 linear feet of stream behind Pine Camp Arts and Community Center.
        ii. How it reduces pollutants: This project addresses bank erosion, improves habitat, and stabilizes a failing 60-inch stormwater pipe.
        iii. Why it is in scope: Construction finished after November 1, 2023, so it is counted toward third-term reductions and therefore listed as an additional BMP in this term.
    b. Broad Rock Creek Stream Restoration (Planned)
        i. What it is: Restoration of approximately 2,100 linear feet on Broad Rock Creek and Goode Creek;
        ii. How it reduces pollutants: This project will repair eroded banks, add floodplain benches, improve water quality, and support Broad Rock Creek Park improvements.

iii. Why it is in scope: Construction for the project is scheduled for completion before October 31, 2028.

11. Why did the City choose these BMPs?

a. The City selects stream restoration projects that improve community safety, strengthen the local environment, and enhance Richmond's parks and neighborhoods. The completion of these projects also helps the City meet its Chesapeake Bay TMDL obligations.

b. At Pine Camp, the City restored severely degraded streambanks to create a safer corridor for nearby schools and parks while providing healthier wildlife habitat and new recreational and educational opportunities.

c. At Broad Rock Creek, the City is stabilizing eroding streambanks within the park to reduce flooding risks, enhance habitat, and support future community-driven park improvements coordinated with local partners.

d. These two new projects, together with the projects completed in previous terms, meet the nutrient reduction requirements for the City of Richmond as set out in its integrated VPDES Permit.

Note: The plan allows alternative projects to be substituted during the current term (as needed) to achieve the required reductions. Any substitutions would be documented and credited per the VPDES Permit.

PART 5: The Role of Public Comment

1. Where can I access the draft Chesapeake Bay TMDL Action Plan?

a. The plan is available at the Richmond MS webpage: MS4 | Richmond.

2. What is the City seeking comment on?

a. The plan's public participation is limited to the additional BMPs proposed in this third term Action Plan (see Part 4). It is not a re-opening of prior plans or already completed projects.

3. How can I submit a comment?

a. The City will hold a hearing on August 19, 2026, from 6:00 p.m. to 7:00 p.m. at 730 E. Broad Street, Richmond, VA 23219, at which time any person may appear and provide comment on the Action Plan.

b. Written comments may be provided to DPU's Water Resources Team at dpuwaterresources@rva.gov.

4. When can I provide comments?

a. The City will be accepting comments on the Action Plan from August 6, 2026, until August 22, 2026.

5. What will the city do with my comment?

a. All comments received during the comment window will be summarized and responded to in Appendix B of the final plan submitted to DEQ; the City may revise the plan based on input.

Your participation in this process helps DPU protect Richmond's waterways and serve the community better!