

# ENFORCING WATER QUALITY STANDARDS

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## EXECUTIVE SUMMARY

Many Virginia streams are degraded by excessive sediments, nutrients, and pollutants that cause unnatural colors and odors.<sup>1,2,3</sup> Toxic pollutants not covered by numeric criteria are found at dangerous levels in public water supplies.<sup>4</sup> These conditions violate the narrative water quality criteria set by the State Water Control Board (SWCB). Failure to fully enforce narrative criteria harms drinking water, recreation, biodiversity, and the overall health of aquatic ecosystems. The state must assess compliance with narrative criteria in all regulatory actions, impose appropriate permit limits, and make impaired waterbody designations based on the narrative criteria.

## CHALLENGE

Water quality standards are the bedrock of the Clean Water Act and State Water Control Law, but important requirements in Virginia's standards are not being met decades after their adoption.

To address such problems, Virginia must fully implement its narrative water quality criteria, which describe conditions that must be prevented in all state waters. Waterbodies must "be free from substances...which interfere directly or indirectly with designated uses or which are inimical or harmful to human, animal, plant, or aquatic life."<sup>5</sup> Thus, narrative criteria broadly prohibit conditions that negatively affect human uses or threaten people or wildlife. By contrast, numeric criteria comprise measurable levels of specific pollutants that are supposed to support all uses. Permit limits based on numeric criteria have been highly effective at improving water quality where they have been applied, but they cannot stand alone.<sup>6</sup>

Narrative criteria are necessary where the state has neither determined protective levels of pollutants nor adopted enforceable numeric criteria. Also, they are uniquely suited to situations where subjective judgments will determine whether human uses are supported.<sup>7</sup> The use of narrative criteria is necessary to stop ongoing problems that interfere with the use of streams for human consumption

or recreation, including nuisance or harmful algae blooms. Absent numeric nutrient standards, polluters currently know that they can continue business as usual unless or until the Commonwealth finally decides to impose narrative standards.

## SOLUTION

Virginia regulates water pollution sources through Virginia Pollutant Discharge Elimination System (VPDES) permits, Virginia Water Protection (VWP) permits, and Clean Water Act section 401 water quality certifications. For each of these regulatory processes, the state is required to determine whether proposed activities could result in water quality standards violations. If analyses show that standards may be violated, the state must deny the permit or impose requirements to prevent the violation. For every new permit or certification, the state must now begin to perform these analyses for narrative criteria.

Sometimes, predictions of water quality standards violations prove incorrect, because knowledge as to how activities will alter natural systems and affect human uses is incomplete. In cases where permit or certification requirements are met but water quality standards are still violated, the state and citizens must be able to demand heightened protections. Therefore, in addition to limitations or technical requirements, each permit or certification should state that violation of in-stream water quality standards is a violation of that approval.

Finally, when Virginia conducts water quality assessments, it must incorporate information and data about violations of narrative criteria and make "impaired waterbody" designations based upon those criteria, as it does for numeric criteria. Listings will mandate further assessments, development of pollution diets for listed waters, and implementation plans to clean up pollution. This process has worked where violations of numeric criteria prompted impairment listings and resulted in permit limits, and must be followed for all narrative criteria.

## POLICY RECOMMENDATIONS

Perform reasonable potential analyses for all narrative criteria when issuing permits or certifications through the DEQ and State Water Control Board.

Require that compliance with all parts of the water quality standards is a condition of all water permits.

Impaired waterbody listings should include those based on violations of narrative water quality criteria.

Fund harmful algae bloom testing and identification for non-tidal waterways through the VDH and fund the collection of water samples through DEQ for VDH testing.