ACWA STANDING PRINCIPLES ON NUTRIENT REDUCTION

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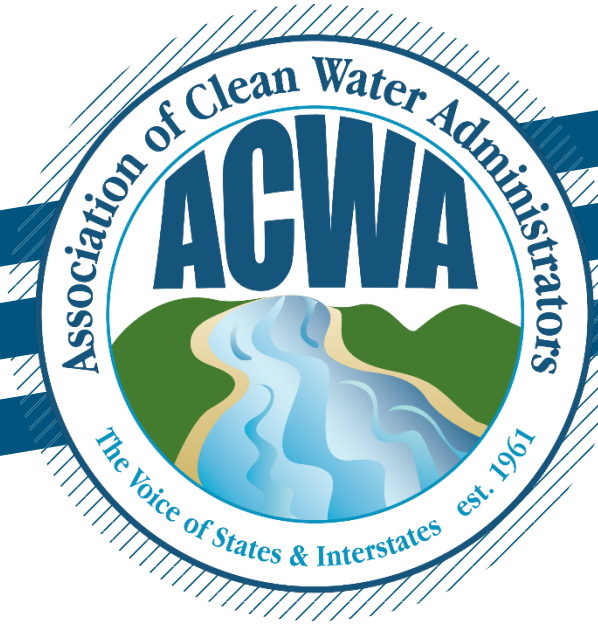

Association of Clean Water Administrators

These Standing Principles on Nutrient Reduction were developed by State staff through ACWA's Nutrient Policy Committee and a series of discussions at ACWA's Nutrient Permitting Workshops, held over 2017 - 2023. The discussions held throughout this process prodded states and EPA to identify challenges & barriers to nutrient permitting program implementation, improve effectiveness of nutrient reduction approaches, including market-based efforts, clarify roles and responsibilities of the water quality standards, 303d/TMDL and NPDES programs, build stronger links between those programs and others, such as monitoring, modernize permitting and data management, and identify program areas where targeted technical assistance and technology transfer would be most beneficial.

These principles were drafted as a reflection of the diverse state perspectives on water quality standards, permitting and on-ground implementation through regulation, infrastructure investment and operational optimization. As such, these principles are intended to be a resource for State nutrient reduction strategies with innate flexibility, allowing States to select certain principles and customize them to fit each State's philosophy and strategic direction on nutrient reduction.

ACWA Standing Principles on Nutrient Reduction

1. While many nutrient issues are typically chronic in nature and not acute, the eutrophication issue is not one of toxicity, but one of excess availability. Goals for nutrient reduction, including achievement of numeric criteria, need not be framed as pass/fail to determine success; rather, nutrient reductions may be expressed in terms of declining trends leading to the achievement of desirable ranges of concentrations. Therefore, reduction efforts should emphasize a lowering of downstream ambient nutrient levels as much as strict adherence to numeric criteria.

2. Narrative criteria expressing the impact of excess nutrients on designated uses are the foundation of each state's reduction strategy. They should not be discounted as ineffectual because they are not quantitative. Progress in improved water quality can be demonstrated by anecdotal observation and quantitative data of actual environmental responses (e.g., decreased frequency and severity of harmful algal blooms) indicating the designated uses of surface water are increasingly being supported over time.

3. Establishing numeric nutrient criteria requires natural science (ecology, geography, and hydrology) to analyze complex data on cause-and-effect relations across varied space and time. Implementing and achieving any nutrient reduction, including through numeric criteria, requires social science (economics, sociology, and political science) to address factors influencing changes in behavior that determine what reductions are feasible. Successful nutrient reduction needs both sciences.

4. At baseflow under dry weather conditions, wastewater from NPDES permitted facilities is often the predominant influence. At many existing facilities, technology-based limits may be

much more physically and fiscally achievable in reducing nutrients than applying water quality based effluent limitations. Water quality -based limits should be considered in tandem with installation of higher-end reduction technology at new wastewater treatment plants or existing facilities undergoing significant expansion.

5. Wet weather reductions in nutrient loading integrate control efforts among point and non-point sources within a watershed. For point sources, reduction in nutrients may be realized through asset management of the sanitary wastewater collection system and significant reduction of inflow and infiltration to that system. Across the urban landscape, best management practices, particularly fertilizer management, riparian buffers and first flush capture, remain the most effective means of reducing nutrients in stormwater.

6. The spatial extent of non-point sources and the limited ability to exert control of runoff across a watershed, along with their largely unregulated status under the authority of the Clean Water Act, make wet weather nutrient reduction a significant challenge and narrow the efficacy of numeric criteria.

7. The solutions to non-point source nutrient pollution lie in the States' ability to develop and implement nutrient reduction strategies that may include, market-driven approaches and state regulated alterations to the landscape and focus on the strategic, targeted, and cumulative placement of management practices within watersheds.

8. Across the nation, a leveraged strategy of State reduction measures should be employed to address nutrients at geographically and demographically diverse locations using various tactics including any combination of numeric criteria, TMDLs, facility optimization, NPDES permitting, as justifiable via regulations and scientific information, source minimization, integrated planning, land use management, infrastructure investment, market-based efforts, funding from the 319 program, programs under the farm security act, and investments from the private sector.

9. Engagement and coordination among the three levels of government, each fulfilling their role in scientific investigation, technical and financial assistance, strategic prioritization, tactical regulation, resource delivery, on-site implementation, and adaptive management, is essential to effective nutrient reduction.

10. Given the wide extent of nutrient impacted waters, states must set priorities to focus efforts on selected state waters, considering the severity of impairments, the need to protect unimpaired waterbodies, probability of successful implementation and impacts to downstream waters.

11. State programs should commit to providing transparent documentation of the efforts to effectively direct action, note challenges and assemble successful environmental outcomes. States should strive to make the transparency of their reduction efforts a common practice.