



Fostering Collaboration  
on Water Issues

Training Environmental  
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January 3, 2011

Administrator Lisa Jackson  
USEPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code: 1101A  
Washington, DC 20460

Dear Administrator Jackson,

The Northeast states recognize that nutrient pollution is a significant environmental problem that impacts many waterbodies in our region and nationwide. Efforts such as the Long Island Sound and Lake Champlain TMDLs and the Massachusetts Estuaries Project provide concrete examples of our commitment to reducing nutrient inputs to our waters. We appreciate EPA's continued focus on this issue and fully support EPA Region 1's attention to how nutrient issues in the Northeast are distinct from those in other parts of the country. Furthermore, all of our states have put significant effort and resources into the process of developing numeric nutrient criteria. While we have no intention of abandoning our efforts to develop and establish these criteria, we have significant concerns with the direction EPA is now taking regarding the independent applicability of numeric nutrient criteria. The New England Interstate Water Pollution Control Commission recently represented its member states at an Office of Water briefing hosted by EPA Region 1. There, we had the opportunity to share some of our concerns with your staff, and have highlighted them for you below.

A number of Northeast states have advanced numeric nutrient criteria development to the point of initiating the rulemaking process within their state to establish these criteria as part of their Water Quality Standards. The technical approach favored by many states bases criteria on strong scientific evidence using stressor-response relationships, where nitrogen and phosphorus are the stressors and environmental indicators are the response (e.g. chlorophyll-a, Secchi disk, indices of biological health). Because the relationship between nutrients and environmental responses is based on many site-specific factors and varies from waterbody to waterbody, these responses consolidate the many site-specific factors that must be considered for efficient application of criteria, and therefore are the most appropriate indicators of a waterbody's impairment status.

Thus, both Maine and Vermont are proposing criteria for freshwater that are based on a decision framework that takes into account both causal variables (nitrogen and phosphorus) and environmental responses relevant to each waterbody. While EPA has argued that single number criteria approaches should be used, no such uniformity of condition exists in the natural world. Because nutrients are not toxic contaminants with threshold responses, conditions demonstrated by acceptable biological responses that are reflective of a range of nutrient conditions are the most appropriate way to

Connecticut  
Maine  
Massachusetts  
New Hampshire  
New York  
Rhode Island  
Vermont

116 John Street  
Lowell, Massachusetts  
01852-1124  
mail@neiwpc.org  
www.neiwpc.org  
p: 978-323-7929  
f: 978-323-7919

apply criteria. While ambient concentrations may be helpful in screening potential impairments, under a decision framework approach, a waterbody would be considered impaired only if one or more measured environmental response criteria did not meet limits, regardless of whether or not the established phosphorus or nitrogen criteria were exceeded. In the case that all measured environmental response criteria are met, the waterbody would not be considered impaired, even if nitrogen or phosphorus concentrations were above the state's numeric criteria.

Based on the final criteria established by EPA for the state of Florida, and feedback provided to the states of Maine and Vermont by EPA Region 1, EPA is not supportive of response-based approaches. EPA has taken the position that states can incorporate response variables but must include numeric nutrient criteria for both nitrogen and phosphorus and that each criterion must be independently applicable to determine a waterbody's impairment status. By taking this position, a waterbody could be determined to be in violation of water quality standards even when a biological impairment does not exist. In addition, by requiring both nitrogen and phosphorus criteria to be incorporated into state water quality standards and applied independently, technological controls could be required to remove both nutrients even though most systems are controlled by the most limiting nutrient (i.e., typically phosphorus in freshwater and nitrogen in marine waters). This added burden could result in significant increases in sludge production and treatment and energy costs, despite not being necessary to control eutrophication in most cases. We recognize that there are some POTWs that discharge to both freshwater and marine systems, but this is the exception and not the rule.

EPA Region 1 has recently suggested a framework that allows for a waterbody exceeding a numeric criterion but meeting acceptable levels for environmental response variables to be listed as "indeterminate" for its attainment status. We appreciate the Region's continued dedication to finding a solution that is workable for both parties, but we still have the same fundamental objection that a waterbody that is meeting environmental response criteria should be listed as attaining standards even if it exceeds a numeric nutrient criterion. We understand that EPA has concerns about implementing response-based criteria, but we feel that this is a question that is dealt with in permitting, not standards development. Further, the Northeast states have solid experience in crafting defensible and robust permits with effluent limits derived from these same response-based criteria. We are committed to working with both of our EPA regions to continue implementing these valid and defensible limits using already endorsed EPA methodologies.

In summary, the Northeast states believe that EPA has failed to produce sufficient scientific evidence or a viable legal or policy basis for the imposition of independent applicability of numeric nutrient criteria. In addition, the Northeast states do not agree that numeric criteria for both nitrogen and phosphorus are necessary for all waterbodies. Numeric criteria should only be required for the limiting nutrient in a system unless dual limitation is demonstrated.

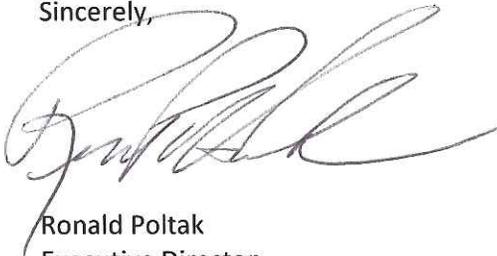
The Northeast states have amply demonstrated that using environmental response variables to develop nutrient criteria is a scientifically valid approach that is highly protective of water quality. Many years of data collection and analysis have gone into development of these criteria. Furthermore, in their review of EPA's *Technical Guidance on Empirical Approaches for Numeric Nutrient Criteria Development*, EPA's Scientific Advisory Board (SAB) recognized that a stressor-response approach is a legitimate, scientifically-based method for developing numeric nutrient criteria when it is applied appropriately,

such as part of a tiered weight-of-evidence approach. The approaches being proposed by the Northeast states fall in line with this recommendation by the SAB, especially with respect to the potential range of acceptable nutrient concentrations, and their site-specificity, that a weight-of-evidence approach supports.

The Northeast states are very appreciative of the assistance provided by EPA Region 1 throughout the nutrient criteria development process and have every intention of continuing the scientific work that will build the foundation of their numeric nutrient criteria. We also plan to continue to address nutrient impairments through NPDES permitting, TMDLs, and adaptive watershed management, while criteria are being developed and put in place. However, the Northeast states are concerned about EPA's approach, and many states are taking the position that they will not proceed any further with adoption of numeric nutrient criteria until EPA has provided sufficient explanation of the legal requirement and scientific basis for the requirement for independent applicability of criteria. Once those concerns can be addressed, we will renew our commitment to the process of establishing these important criteria in earnest.

Thank you for your consideration of the concerns we have described. We are eager to continue working with you on this important environmental issue and look forward to your response.

Sincerely,



Ronald Poltak  
Executive Director

Cc: Curt Spalding, Regional Administrator, EPA Region 1  
Judith Enck, Regional Administrator, EPA Region 2  
NEIWPCC Executive Committee