

May 8, 2000

Geoffrey H. Grubbs, Director
Office of Science and Technology
US EPA (4503)
401 M Street, SW
Washington, DC 20460

Dear Mr. Grubbs,

The New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of the New England states, respectfully submits the following comments on the national and regional strategies for developing nutrient criteria. These comments were developed using a workgroup process in order to ensure that they are representative of NEIWPCC's Compact member states' views and opinions. NEIWPCC's role is to coordinate the individual efforts of its compact states to improve and maintain water quality. With this in mind, the needs of the state are of particular concern to the Commission.

The work of NEIWPCC's Nutrient workgroup has focused, to this point, on the regional development of nutrient criteria in lakes, with the acquisition of water quality data and the identification of reference lakes. This effort is aided by, welcome and beneficial funding support from EPA. As outlined in EPA's Nutrient Criteria Technical Guidance Manual for lakes, the New England states have been working with assistance from NEIWPCC to gather data on nutrients in lakes and recently on rivers, to support development of regional nutrient water quality criteria. This work has been coordinated in large part by the ENSR Corporation under a contract through NEIWPCC with funding from EPA. The effort has been very useful in collecting and organizing nutrient data for lakes in the New England area. The database provides not only a convenient and useful resource, but also is helping to identify gaps that need to be filled through additional monitoring.

However, with the initial outcome of this effort, the New England States have encountered several concerns regarding the Environmental Protection Agency's (EPA) national strategy to develop regional nutrient criteria for lakes, rivers and estuaries. While the States certainly agree that nutrient enrichment is a serious problem for waterbodies in our region, there is concern that regionally developed nutrient criteria assumes a commonality of waterbody conditions and management needs that clearly do not exist in our region. For decades, the states have established environmental goals tailored to site-specific conditions which consider the diversity of the ecosystems in the region.

To simplify management of lake trophic conditions based on "one size fits all" or even a range of regionally developed numbers, we feel, would result in some states being forced to develop TMDLs for waterbodies that are meeting their designated uses and showing

no evidence of pollutant stresses. The data analyses conducted by ENSR, on behalf of the nutrient workgroup, clearly demonstrates this to be the case when implementing the statistical approach to nutrient criteria development. Similar concerns apply to nutrient criteria for rivers and estuaries in the region.

Under the Clean Water Act, water quality criteria are supposed to protect and support the designated uses of the water body, based on sound scientific rationale. The most basic concern with the statistical approach to nutrient criteria development, as demonstrated in this effort, is that it leads to criteria that have no direct relationship to designated uses or ecological condition. For example, use of the 75th percentile of the total phosphorus distribution for reference lakes leads to an eco-region criterion that, by definition, would place 25% of the highest quality reference lakes, and an even larger percentage of all lakes, in violation of the criterion. This would be true regardless of whether these lakes were supporting their designated uses.

The technical work of the Nutrient Workgroup was conducted consistent with EPA guidance, and the results for our region clearly illustrate our concerns about the statistical approach to nutrient criteria. The December 1999 draft report by ENSR Corp. provides preliminary nutrient criteria for the three main lake eco-regions in New England. The midpoints of the criteria ranges result in the following proposed total phosphorus values.

Ecoregion	Proposed Phosphorus Criterion
Laurentian Plains and Hills	10.5 ug/L
New England Highlands	8.8 ug/L
New England Coastal Zone	10.9 ug/L

If the New England states were required by EPA to adopt either these criteria or stricter values, then the majority of the lakes in the region would be in violation of state water quality standards. Whereas, only a small percentage of the lakes in each state currently fail to support their designated uses. The situation by state is shown below:

State	Percent of monitored lakes that would violate the proposed criteria
Connecticut	58%
Maine	50-69%
New Hampshire	64%
Rhode Island	75%

Vermont

70%

Massachusetts

50%

The current draft EPA technical guidance manual on nutrient criteria for lakes and reservoirs includes an appendix with case studies of lake criteria development in several states and provinces. These case studies illustrate a broad variety of technical approaches that have proven useful. Unfortunately, the EPA guidance document itself makes little reference to these existing programs, many of which would be precluded by the guidance. The states urge EPA to broaden the technical guidance for lake nutrient criteria so that a more comprehensive list of scientifically sound approaches will be available to the states.

Therefore, we are asking EPA to give consideration to the other methodologies noted in the guidance before proceeding with further efforts on rivers and estuarine waters. We ask that EPA solicit input from the States to determine an approach that works for individual states on protecting lakes, rivers and estuaries from advancing trophic conditions and nutrient over-enrichment.

Please do not hesitate to contact me, or Beth Card of my staff, at (978) 323-7929 with any questions.

Sincerely,

Ronald Poltak
Executive Director

Cc: Ron Manfredonia, Roger Janson, and Max Liebman, EPA Region 1
NEIWPC Executive Committee
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ASIWPCA
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