



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

MAR 21 2012

Ms. Jill Csekitz
Standards Group (MC-234)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Dear Ms. Csekitz:

At a Nutrient Criteria Development Advisory Workgroup (NCDAWG) meeting held on June 20, 2011, Texas Commission on Environmental Quality (TCEQ) staff provided a comprehensive overview and status update on numeric nutrient criteria development efforts in Texas. Previous nutrient criteria related efforts were discussed, including TCEQ's 2010 adoption of chlorophyll-a criteria for 75 reservoirs and development of nutrient criteria implementation procedures. In addition, several completed and ongoing nutrient-related water quality studies and projects were discussed, as well as options on potential approaches for future development of numeric nutrient criteria for rivers, streams, and estuaries. The purpose for this letter is to provide a status update on the U.S. Environmental Protection Agency (EPA) Region 6's review of TCEQ's chlorophyll-a criteria submittal, as well as to provide nutrient criteria-related comments for TCEQ's consideration in preparation for the upcoming 2013 triennial revision to the *Texas Surface Water Quality Standards*.

Status Update on EPA Review of Chlorophyll-a Criteria

On May 17, 2011, EPA Region 6 requested additional supporting documentation from TCEQ to facilitate our Clean Water Act (CWA) §303(c) review of Texas' chlorophyll-a criteria for 75 reservoirs. In response to this request, TCEQ submitted additional supporting documentation on July 7, 2011, October 7, 2011, and February 24, 2012. We greatly appreciate TCEQ's responsiveness to our request, and are currently reviewing the chlorophyll-a criteria in light of this additional information.

Nutrient Criteria-Related Comments for 2013 Triennial Revision

Please note that the comments provided below are preliminary in nature and do not constitute a disapproval or determination by EPA under CWA §303(c). Approval and disapproval decisions will be made by the Region following adoption of new or revised standards by the state and submittal to EPA. Any determination pursuant to CWA §304(c)(4)(B) may only be made by the Administrator.



1. ***Nutrient Criteria Development Plan Update.*** During the 2011 NCDAWG meeting, TCEQ staff asked meeting participants whether TCEQ should update its 2006 nutrient criteria development plan. As expressed in a recent December 20, 2011, letter from Jane Watson, EPA Region 6, EPA believes that state nutrient criteria development plans serve as important road maps to guide the process for developing numeric nutrient criteria and that updates to the state plans in Region 6 are needed. We appreciate TCEQ's willingness to update its plan, and understand TCEQ's need to consider stakeholder input as progress is made to update the plan. For TCEQ's consideration in updating the milestones schedule in the nutrient criteria development plan, we would also like to note that the eighth element described in the March 2011 EPA nutrient framework memo from Nancy Stoner¹ establishes a goal for states to complete development of numeric nitrogen and phosphorus criteria for at least one class of waters within three to five years. This same goal is reflected in EPA's draft Fiscal Year (FY) 2013 National Water Program Guidance.²
2. ***Numeric Criteria for Nitrogen (N) and Phosphorus (P).*** EPA Region 6 recognizes the significant effort put forth by TCEQ leading to the adoption of chlorophyll-a criteria for 75 reservoirs in Texas. We would also like to encourage TCEQ efforts toward development and adoption of numeric criteria for nitrogen and phosphorus for lakes and reservoirs, as well as for the other classes of water, as data to support such efforts in Texas becomes available. EPA considers state adoption of numeric criteria for nitrogen and phosphorus, the causal parameters directly responsible for eutrophication in near-field and/or downstream waters, a priority.³
3. ***Nutrient Criteria Development Approaches.*** In the handouts provided to meeting participants during the 2011 NCDAWG meeting, TCEQ describes options on potential approaches for future development of numeric nutrient criteria. The reference and stressor-response based approaches are described as options for developing numeric nutrient criteria for rivers and streams, as well as estuaries. A modeling based approach is also described as a third option for estuaries. EPA Region 6 agrees that all three of these approaches, as well as a weight of evidence approach that combines any or all of the these three approaches, can be used to develop numeric nutrient criteria as long as the criteria are protective of designated uses and scientifically defensible.
4. ***Utilization of Stream Studies in Texas.*** As also described in the handouts provided to meeting participants during the 2011 NCDAWG meeting, several stream nutrient studies for specific geographical regions in Texas have been completed or are ongoing. EPA Region 6 encourages TCEQ's utilization of these studies in developing numeric nutrient criteria for streams and rivers.

¹ *Working in Partnership With States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions.* Available at:

http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/memo_nitrogen_framework.pdf

² See draft program activity measure (PAM) WQ-26 in EPA's *Draft National Water Program Guidance: Fiscal Year 2013.* Available at:

http://water.epa.gov/resource_performance/planning/FY-2013-National-Water-Program-Guidance.cfm

³ See enclosed letter dated February 15, 2011, from H. Curtis Spalding, Regional Administrator, U.S. Environmental Protection Agency Region 1, to Honorable Susan Collins, Senator.

Thank you for the opportunity to provide this status update and these comments in preparation for the 2013 water quality standards revision. We appreciate Texas' progress in developing numeric nutrient criteria, and we look forward to continuing work with you and your staff on the protection of water resources. If you have any questions, please contact me at (214) 665-6644 or have your staff contact Melinda McCoy at (214) 665-8055 or Mike Bira at (214) 665-6668.

Sincerely,



Philip A. Crocker, Chief
Watershed Management Section

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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BOSTON, MA 02109-3912

February 15, 2011

The Honorable Susan Collins
United States Senate
413 Dirksen Senate Office Building
Washington, D.C. 20510

OFFICE OF THE
REGIONAL ADMINISTRATOR

Dear Senator Collins:

Thank you for your January 21, 2011 letter concerning the role of Maine's Department of Environmental Protection (Maine DEP) in determining the appropriate Clean Water Act (CWA) listings for nutrient impaired waters, and the state's ability to rely on narrative, rather than numeric, nutrient criteria. Maine DEP has made considerable progress in working towards mitigating nitrogen and phosphorus pollution, and the Environmental Protection Agency (EPA or Agency) appreciates and recognizes these important efforts. Administrator Jackson has asked me to respond on her behalf in coordination with her national program managers.

Nitrogen and phosphorus pollution impacts water supplies, aquatic life, and recreational water quality across the United States. EPA's regulations at 40 CFR Part 131.11 specify that criteria "must contain sufficient parameters or constituents to protect the designated use." Therefore, EPA considers state adoption of numeric criteria for nitrogen and phosphorus, the causal parameters directly responsible for eutrophication in near-field and/or downstream waters, a priority. While states may adopt a narrative nutrient criterion¹ in conjunction with numeric criteria for nitrogen and phosphorus, the numeric criteria will allow states to quantitatively evaluate waters for use attainment and promote consistency in assessment and permitting.

EPA recognizes that there is analytical, spatial, and temporal variability associated with environmental data, which should be considered in deriving numeric criteria for nitrogen and phosphorus. If desired, states may subcategorize waters (e.g., cool water aquatic life, warm water aquatic life) or use a tiered aquatic life use approach and apply the criteria accordingly. Regardless of how the state chooses to categorize its waters, the uses and the criteria to protect those uses must be consistent with 40 CFR Part 131.10 which implements CWA Sections 303 and 101(a)(2), and requires states to designate their navigable waters to provide for the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water, wherever attainable. Furthermore the state's designated uses should be supported by the appropriate technical and scientific data and analyses per 40 CFR Parts 131.6(b) and 131.11. EPA can work with states to adjust the state-adopted causal parameter criteria to account for site-specific conditions that continue to assure attainment of applicable water quality goals.

¹ EPA is aware of Maine's narrative nutrient criteria for Class GPA waters which apply to great ponds, natural lakes and ponds less than 10 acres in size (Maine Revised Statute, MRS, 38 §465-A Paragraph 1.B). However, Maine's Standards for Classification of Fresh Surface Waters (MRS 38 §465), for fresh waters which are not great ponds, and Standards for Classification of Estuarine and Marine Waters (MRS 38 §465-B) do not include narrative criteria specific to nutrients. Maine currently assesses rivers, streams, and estuarine and marine waters against general aquatic life use support and biological narrative standards. Assessment methods for measurement of these general standards, explained in Maine's Comprehensive Assessment and Listing Methodology (CALM), include nutrient enrichment measures such as excessive plant and algal growth.

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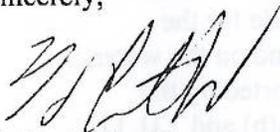
Maine DEP proposed draft rules in February 2010 that included numeric criteria for total phosphorus as well as for biological indicators of eutrophication, such as chlorophyll-a, secchi depth (transparency), and algal cover, for fresh waters. The February 2010 draft rule included a waterbody assessment approach to use only the biological eutrophication indicators to assess impairment. Once biological impairment was indicated, numeric phosphorus criteria were only to be used to identify whether phosphorus would be listed as the cause of the impairment. Therefore a water body could be exceeding the phosphorus criteria, but be found to meet water quality standards because biological criteria had been attained. In that case, no numeric phosphorus criteria would apply for the purposes of protecting the water body from future impairments. In EPA's March 2010 letter to Maine DEP, we agreed that the proposed numeric phosphorus thresholds were protective and approvable, but pointed out that criteria are applicable not just for assessment and restoration of impaired waters, but also to ensure that water bodies that are meeting designated uses do not become impaired. Establishing numeric criteria for nitrogen and phosphorus, the nutrient causal parameters directly responsible for eutrophication in immediate and/or downstream waters, is a protective approach which helps ensure compliance with 40 CFR 131.11(a) which states: "States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use."

Following discussions with EPA Region 1 staff, Maine DEP revised the draft rule to provide for the development of higher, site-specific phosphorus criteria within a defined range. Given the flexibility incorporated in Maine's revised approach, and the minimal number of waterbodies that would likely necessitate site specific criteria, Maine should have the ability to apply site-specific criteria as needed.

I appreciate Maine's interest and efforts in mitigating nitrogen and phosphorus pollution. EPA looks forward to continuing to work with Maine to develop a scientifically and legally defensible approach to protecting the state's waters from nitrogen and phosphorus pollution.

Again, thank you for your letter. If you have further questions, please contact me or your staff may call Ms. Michael Ochs in the Office of Government Relations at (617) 918-1066, or Stephen Silva, Water Quality Branch Chief, at (617) 918-1561.

Sincerely,



H. Curtis Spalding
Regional Administrator