



Virginia  
Regulatory  
Town Hall

[townhall.state.va.us](http://townhall.state.va.us)

## Notice of Intended Regulatory Action (NOIRA) Agency Background Document

<b>Approving authority name</b>	State Water Control Board
<b>Virginia Administrative Code (VAC) citation</b>	9 VAC 25-260
<b>Regulation title</b>	Water Quality Standards
<b>Action title</b>	Amendments to Water Quality Standards – Criteria to Protect the Designated Uses of Lakes and Reservoirs from the Impacts of Nutrients
<b>Document preparation date</b>	October 26, 2004

This information is required for executive review ([www.townhall.state.va.us/dpbpages/apaintro.htm#execreview](http://www.townhall.state.va.us/dpbpages/apaintro.htm#execreview)) and the Virginia Registrar of Regulations ([legis.state.va.us/codecomm/register/regindex.htm](http://legis.state.va.us/codecomm/register/regindex.htm)), pursuant to the Virginia Administrative Process Act ([www.townhall.state.va.us/dpbpages/dpb\\_apa.htm](http://www.townhall.state.va.us/dpbpages/dpb_apa.htm)), Executive Orders 21 (2002) and 58 (1999) ([www.governor.state.va.us/Press\\_Policy/Executive\\_Orders/EOHome.html](http://www.governor.state.va.us/Press_Policy/Executive_Orders/EOHome.html)), and the *Virginia Register Form, Style, and Procedure Manual* ([http://legis.state.va.us/codecomm/register/download/styl8\\_95.rtf](http://legis.state.va.us/codecomm/register/download/styl8_95.rtf)).

### Purpose

*Please describe the subject matter and intent of the planned regulatory action. Also include a brief explanation of the need for and the goals of the new or amended regulation.*

The subject matter of the rulemaking will include new numerical and narrative criteria to protect designated uses of lakes and reservoirs from the impacts of nutrients. The rulemaking may also include new and/or revised use designations for certain categories of lakes and reservoirs.

The intent of this rulemaking is to protect state waters by adopting regulations that are technically correct, necessary and reasonable. These standards will be used in setting Virginia Pollutant Discharge Elimination System Permit limits and for evaluating the waters of the Commonwealth for inclusion in the Clean Water Act 305(b) report and on the 303(d) list. Waters not meeting standards will require development of a Total Maximum Daily Load (TMDL) under section 303(d) of the Clean Water Act.

This rulemaking is needed to establish the appropriate criteria for lakes and reservoirs in the Commonwealth of Virginia because:

- 1) The U.S. Environmental Protection Agency (EPA) has published ecoregion water body specific nutrient related criteria and stated its intent in a National Nutrient Strategy (1998) to promulgate these default nutrient criteria for a state if the state does not adopt nutrient criteria by December 31, 2004 or

submit a nutrient development plan with timelines for adoption of this criteria that are accepted by EPA, and

- 2) Adoption of water body type specific criteria and uses is necessary to define the most accurate water quality goals for clean up or TMDL development and to protect the appropriate aquatic life and recreational uses of lakes and reservoirs.

Since Virginia intends to develop state specific criteria rather than adopt the EPA published national 304(b) nutrient criteria, the state submitted to EPA a nutrient criteria development plan for Virginia which EPA has accepted. EPA will use the plan to track the State's progress in nutrient criteria development. If the Commonwealth keeps to the schedule contained in the Plan, EPA is not expected to promulgate nutrient criteria for the State. Virginia is committed through its Nutrient Criteria Development Plan to adopt new and revised water quality standards for estuaries, lakes and reservoirs, and rivers and streams. The Department of Environmental Quality (DEQ) is using a two step process - technical development of nutrient criteria and administrative adoption of the criteria - for each water body type. Prioritization of waters for criteria development and adoption is based on availability of data to proceed with a rulemaking. This sequential approach to the development and regulatory adoption of nutrient criteria was initiated in 2003 for estuaries; the current rulemaking is for lakes and reservoirs and in 2005 a separate rulemaking will be initiated for rivers and streams. Since mid 2003 an Academic Advisory Committee (AAC) on Freshwater Nutrient Criteria - which was formed by the Virginia Water Resources Research Center under contract to DEQ - has been providing advice to DEQ on nutrient criteria development for lakes and reservoirs. In 2004 a separate general stakeholders group was formed to assist in issues related to implementation of the criteria recommended by the AAC.

**Legal Basis**

*Please identify the state and/or federal source of legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly bill and chapter numbers, if applicable, and (2) promulgating entity, i.e., the agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.*

Federal and state mandates in the Clean Water Act at 303(c), 40 CFR 131 and the Code of Virginia in §62.1-44.15(3a) are the sources of legal authority identified to promulgate these amendments. The most relevant law is the Code of Virginia at §62.1-44.15(3a). The promulgating entity is the State Water Control Board.

The scope and objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The Clean Water Act at 303(c)(1) requires that the states hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards.

The scope of the Federal regulations at 40 CFR 131 is to describe the requirements and procedures for developing, reviewing, revising and approving water quality standards by the States as authorized by section 303(c) of the Clean Water Act 40 CFR 131 specifically requires the states to adopt criteria to protect designated uses.

The scope and purpose of the State Water Control Law is to protect and to restore the quality of state waters, to safeguard the clean waters from pollution, to prevent and to reduce pollution and to promote water conservation. The State Water Control Law (Code of Virginia) at §62.1-44.15(3a) requires the Board to establish standards of quality and to modify, amend or cancel any such standards or policies. It also requires the Board to hold public hearings from time to time for the purpose of reviewing the water quality standards, and, as appropriate, adopting, modifying or canceling such standards.

The correlation between the proposed regulatory action and the legal authority identified above is that criteria and designated uses are requirements of the Water Quality Standards and the amendments being considered are modifications of criteria that will protect designated uses.

The authority to adopt standards is mandated, although the specific standards to be adopted or modified are discretionary to the Environmental Protection Agency and the state.

Federal Regulation web site:

<http://www.epa.gov/epahome/cfr40.htm>

Clean Water Act web site:

<http://www4.law.cornell.edu/uscode/33/1313.html>

State Water Control Law (Code of Virginia) web site:

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+62.1-44.2>

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+62.1-44.15>

## Need

*Please detail the specific reasons why the agency has determined that the proposed regulatory action is essential to protect the health, safety, or welfare of citizens. In addition, delineate any potential issues that may need to be addressed as the regulation is developed.*

---

The rulemaking is essential to the protection of health, safety or welfare of the citizens of the Commonwealth. Proper water quality standards protect water quality and living resources of Virginia's waters for consumption of fish and shellfish, recreational uses and conservation in general.

Potential issues that may need to be addressed are listed in the alternatives section.

## Substance

*Please detail any changes that will be proposed. For new regulations, include a summary of the proposed regulatory action. Where provisions of an existing regulation are being amended, explain how the existing regulation will be changed.*

---

The proposed regulatory action will constitute an amendment of existing regulatory provisions. Criteria will be proposed to protect the uses of lakes and reservoirs from the effects of nutrient enrichment.

This effort will also involve an evaluation of the applicability of Virginia's current regulatory program (Nutrient Enriched Waters) for controlling nutrients in surface waters, including lakes and reservoirs. Regulatory designations of Nutrient Enriched Waters are based upon an evaluation of local water quality data for one or more indicators of nutrient enrichment (chlorophyll a, total phosphorus and dissolved oxygen fluctuations); the waters are protected from further enrichment by a companion regulation for control of total phosphorus from point sources. This evaluation will consider expansion of the existing State approach to include designations of additional lakes and reservoirs experiencing nutrient enriched problems. If the concept of Nutrient Enriched Waters is not incorporated into the final approach selected by the State, a plan will have to be developed to transition from the existing regulatory Nutrient Enriched Waters listings to the new regulatory approach by sequentially deleting currently designated Nutrient Enriched Waters as the Commonwealth adopts nutrient criteria for those waters.

## Alternatives

*Please describe all viable alternatives to the proposed regulatory action that have been or will be considered to meet the essential purpose of the action. Also, describe the process by which the agency has considered or will consider, other alternatives for achieving the need in the most cost-effective manner.*

---

The following are alternatives for consideration, but DEQ staff will work in conjunction with other Commonwealth of Virginia and federal agencies, the Academic Advisory Committee, a stakeholder workgroup, and neighboring states to find other alternatives. Alternatives provided by the public will also be considered.

Some alternatives considered by the agency include, but are not limited to, the following:

- Whether nutrient criteria should be adopted for lakes and reservoirs.
- Whether the EPA published 304(a) default criteria recommendations for lakes and reservoirs for ecoregions IX, XI, and XIV for causal (total phosphorus and total nitrogen) and response (chlorophyll a and water clarity) variables are appropriate for Virginia lakes and reservoirs or should some other approach be taken to control nutrients in lakes and reservoirs such as effects based criteria (the effects based criteria approach is favored).
- Whether criteria development for natural lakes and constructed impoundments should be considered separately.
- Whether recreational fish population status can be an indicator of suitability for aquatic life in constructed impoundments.
- Whether lake user perception surveys or a literature survey of user perception of lakes would be an appropriate means for assessing suitable criteria and concentrations for support and maintenance of recreational uses.
- Whether different nutrient criteria should be developed for lakes and reservoirs that have a public water supply designated use.
- Whether nutrient criteria should be expressed as water column chlorophyll a.
- Whether criteria should be expressed as total phosphorus only if total phosphorus - chlorophyll a relationships are predictable since these relationships are more variable in impoundments than in natural systems.
- Whether nitrogen criteria should not be established because of the potential for nitrogen reductions, if applied independently of phosphorus, to stimulate blue-green algae, which affect designated use negatively.
- Whether downstream loading effects should be considered for lakes and reservoirs since constructed impoundments often act as nutrient traps.
- Whether the existing Policy for Nutrient Enriched Waters Policy (9 VAC 25-40-10 et.seq.) or the Designation of Nutrient Enriched Waters (9 VAC 25-260-350) should be revised (e.g. remove the lakes and reservoirs from the list of nutrient enriched waters) if these nutrient response variables are adopted.

- Whether Virginia should consider adoption of ecoregion and water body type specific criteria developed by neighboring states with shared waters?
- Whether the existing dissolved oxygen criterion should be revised as a response variable in lakes and impoundments.
- Whether Virginia should utilize “use attainability” studies to refine uses, especially for lakes with multiple uses.
- Whether any of the individual alternatives listed here be placed in agency guidance or should it be placed in the water quality standards regulation (e.g. implementation issues).

## Public Participation

*Please indicate the agency is seeking comments on the intended regulatory action, to include ideas to assist the agency in the development of the proposal and the costs and benefits of the alternatives stated in this notice or other alternatives. Also indicate whether a public meeting is to be held to receive comments on this notice. Indicate that 1) the agency is not holding a public meeting because the agency has authorized proceeding without holding a meeting or 2) the agency is holding a meeting. If a public meeting is to be held, indicate that the date, time and place of the meeting may be found in the calendar of events section of the Virginia Register of Regulations.*

The Board is seeking comments on the intended regulatory action, including but not limited to 1) ideas to assist in the development of a proposal, 2) the costs and benefits of the alternatives stated in this notice or other alternatives and 3) impacts of the regulation on farm and forest land preservation.

The Board also seeks comment from the public on any aspects of technical support documentation for this rulemaking provided by the Environmental Protection Agency and Academic Advisory Committee that should or should not relate to the Commonwealth of Virginia or should be modified in some way to better protect water quality in the Commonwealth.

All of the EPA documents can be found at <http://www.epa.gov/waterscience/standards/nutrient.html>.

All of the DEQ documents can be found at <http://www.deq.virginia.gov/wqs/rule.html#NUT2>

These technical documents include:

Report to the Academic Advisory Committee to Virginia Department of Environmental Quality - Freshwater Nutrient Criteria, Virginia Water Resources Research Center, July 20, 2004.

Nutrient Criteria Development Plan for the Commonwealth of Virginia, including attachments and time lines, March 24, 2004

National Strategy for the Development of Regional Nutrient Criteria, USEPA 822-R-98-022, June, 1998.

Technical Guidance Manual on Lakes/Reservoirs, USEPA May 2000

304(a) Nutrient Criteria Documents for 8 ecoregions for Lakes/Reservoirs (see ecoregions IX, XI, and XIV), USEPA January 2001

Memo: Development and Adoption of Nutrient Criteria into Water Quality Standards, USEPA November 14, 2001

The Board is also seeking comment on ad hoc advisory committee membership. Names of individuals or organizations for the ad hoc committee should be submitted to the contact person 30 days after publication of the Notice of Intended Regulatory Action in the Virginia Register of Regulations.

Anyone wishing to submit written comments for the public comment file may do so at the public meeting, or by mail, email or fax to Jean W. Gregory, Department of Environmental Quality, P.O. Box 10009, Richmond, VA 23240-0009, phone number (804) 698-4113, fax (804) 698-4116, email [jwgregory@deg.virginia.gov](mailto:jwgregory@deg.virginia.gov). Written comments must include the name and address of the commenter. In order to be considered comments must be received by 5:00 p.m. on the date established as the close of the comment period.

A public meeting will be held and notice of the meeting can be found in the Calendar of Events section of the Virginia Register of Regulations. Both oral and written comments may be submitted at that time.

### Participatory Approach

*Please indicate the extent to which an ad hoc advisory group will be used in the development of the proposed regulation. Indicate that 1) the agency is not using the participatory approach in the development of the proposal because the agency has authorized proceeding without using the participatory approach; 2) the agency is using the participatory approach in the development of the proposal; or 3) the agency is inviting comment on whether to use the participatory approach to assist the agency in the development of a proposal.*

---

The Board is using the participatory approach in the development of this proposal. This will involve the formation of an ad hoc advisory committee to assist in the development of the proposal.

### Impact on family

*Assess the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.*

---

The direct impact resulting from the development of water quality standards is for the protection of public health and safety, which has only an indirect impact on families.