



Town Hall

Periodic Review and Retention of Existing Regulations Agency Background Document

Agency Name:	Department of Environmental Quality
VAC Chapter Number:	9 VAC 25-40
Regulation Title:	Policy for Nutrient Enriched Waters
Action Title:	State Water Control Board review pursuant to Executive Order Number Twenty-five (1998) determines the regulation should be retained in its current form.
Date:	June 28, 2001

This information is required pursuant to the Administrative Process Act § 9-6.14:25, Executive Order Twenty-Five (98), and Executive Order Fifty-Eight (99) which outline procedures for periodic review of regulations of agencies within the executive branch. Each existing regulation is to be reviewed at least once every three years and measured against the specific public health, safety, and welfare goals assigned by agencies during the promulgation process.

This form should be used where the agency is planning to retain an existing regulation.

Summary

Please provide a brief summary of the regulation. There is no need to state each provision; instead give a general description of the regulation and alert the reader to its subject matter and intent.

This policy provides for the control of discharges of nutrients from point sources affecting state Waters that have been designated “nutrient enriched waters” in section 9 VAC 25-260-350.

The policy requires certain municipal and industrial discharge permit holders that discharge effluent containing phosphorus to maintain a monthly average total phosphorus concentration of 2 mg/L or less. Municipal and industrial dischargers that release phosphorus in concentrations above 2 mg/L to these “nutrient enriched waters” are subject to this policy if they have a design flow of 1.0 MGD or greater and a VPDES permit issued on or before July 1, 1988. These dischargers were required to meet the 2 mg/L effluent limitation as quickly as possible, and in any event, within three years following modification of the VPDES permit. If the discharger voluntarily accepted a permit to require installation and operation of nitrogen removal facilities

to meet a monthly average total nitrogen effluent limitation of 10 mg/L for April through October, the discharger was allowed an additional year to meet the phosphorus effluent limitation.

All new source dischargers with permits issued after July 1, 1988 and a design flow greater than or equal to 0.05 MGD that propose to discharge to “nutrient enriched waters” are also required to meet a monthly average total phosphorus effluent limitation of 2 mg/L. All discharges to “nutrient enriched waters” that, at the time of that designation were subject to effluent limitations more stringent than the 2 mg/L monthly average total phosphorus are required to continue to meet the more stringent phosphorus limitation.

The regulation also contains language that allows the SWCB to require monitoring of discharges where the permittee has the potential for discharging monthly average total phosphorus greater than 2 mg/L and also allows adjoining States to petition the Board to consider rulemakings to control nutrients entering tributaries to their nutrient enriched waters.

The regulation states that after the point source controls are implemented and the effects of this policy and the nonpoint source control programs are evaluated, the State Water Control Board should recognize that it may be necessary to impose further limitations on nutrient discharges to control undesirable growths of aquatic plants. This policy can thus be viewed as the initial phase of a strategy to protect Virginia’s waters from the effects of nutrient enrichment.

Basis

Please identify the state and/or federal source of legal authority for the regulation. The discussion of this authority should include a description of its scope and the extent to which the authority is mandatory or discretionary. Where applicable, explain where the regulation exceeds the minimum requirements of the state and/or federal mandate.

The State Water Control Board adopted this policy under the authority of Sections 62.1-44.15(3a), 62.1-44.15(10) and 62.1-44.15(14) of the Code of Virginia and section 303(c)(1) of the Federal Clean Water Act.

Since the SWCB has authority under Section 62.1-44.15(5) of the Code of Virginia to issue National Pollution Discharge elimination System (NPDES) permits and thereby control point source discharges of nutrients, this policy for controlling certain point source nutrients to those waters designated as “nutrient enriched” was established.

In a letter dated April 5, 1998 the Office of the Attorney General indicated that the Board had the authority to adopt the standards and policy for nutrient enriched waters (9 VAC 25-260-350 and 9 VAC 25-40).

The regulation does exceed the minimum requirements of the state and federal statutory mandates, but the regulation was strongly recommended by a joint legislative subcommittee of the General Assembly because regulatory controls were needed to protect the quality of the waters of the Chesapeake Bay and tributaries and thus the health, safety and welfare of the

citizens of the Commonwealth who utilize these waters as a source of recreation, commercial fishing, and, in some of the freshwater sections, drinking water.

The expansion of this regulation to control point source dischargers of phosphorus in waters outside the Bay drainage which were officially designated as nutrient enriched was viewed by the SWCB as a logical extension of protection to these waters from the effects of excessive amounts of nutrients, such as excessive growths of plants, fluctuating levels of dissolved oxygen, water discoloration, taste and odor problems, reduced water clarity, and impairment in primary contact recreation due to the aesthetically displeasing appearance of the water.

Public Comment

Please summarize all public comment received as the result of the Notice of Periodic Review published in the Virginia Register and provide the agency response. Where applicable, describe critical issues or particular areas of concern in the regulation. Also please indicate if an informal advisory group was formed for purposes of assisting in the periodic review.

Comment: The James River Association said they were supportive of this policy when it was originally adopted by the State Water Control Board and they remain supportive of it today. They said this policy should remain in place, and should be supplemented by nutrient standards and permit limits designed to achieve the nutrient reduction goals set for the Bay and its tributaries. They strongly urged the State Water Control Board and the Department of Environmental Quality to keep this policy in place and to explore regulatory programs that will expeditiously reduce nutrient loadings to the Bay and its tributaries. They said that this policy has contributed significantly to the reduction of nutrients in the Chesapeake Bay and its tidal tributaries that are nutrient enriched. However, additional controls are needed to further reduce nitrogen to an acceptable level to improve water quality and living resources.

Response: As mentioned in the public comments from the James River Association, this policy has contributed significantly to the reduction of nutrients in the Chesapeake Bay and its tidal tributaries, but the need for complementary supplemental strategies are recognized.

In addition to this regulatory approach, there have been statutory approaches to managing nutrients in Virginia waters, including a ban – effective January 1, 1988 – on the sale, manufacture or distribution for use of any cleaning agent containing more than 0.5 percent phosphorus. More recently, the Virginia Legislature mandated the development of tributary plans for restoration of the water quality and living resources of the Chesapeake Bay. The Legislature also enacted the Water Quality Improvement Act, which became effective July 1, 1997, and provides monetary incentives for point source and non-point source control of nitrogen to achieve nutrient reduction goals in the tributary plans.

The Environmental Protection Agency initiated in 1997 as part of the “President’s Clean Water Action Plan” an accelerated nutrient water quality criteria development plan. This is a regional and waterbody-type approach to the development of nutrient criteria in partnership with the states. States are expected to either adopt the EPA waterbody and region specific nutrient

criteria or develop their own alternative criteria by the year 2003 for estuarine waters and by 2004 for freshwaters. The Chesapeake 2000 Agreement calls for Virginia and other Bay states to make their best efforts to adopt water quality criteria to address nutrient enrichment by 2003.

Comment: The Chesapeake Bay Foundation (CBF) requested an extension of the deadline for submitting comment on the policy. CBF felt that it was appropriate to consider changes to this policy and the nutrient enriched waters portion of the water quality standards regulation on a parallel time frame as all policy determinations of “nutrient enriched waters” are also accompanied by a regulatory amendment and listing in the Water Quality Standards. CBF stated that the policy warranted a detailed review because the Chesapeake Bay and virtually all of the waters throughout the watershed are experiencing devastating impacts from excessive nutrient loadings.

Response: DEQ staff advised CBF that the time period could not be extended to coincide with the close of comment period for the triennial review NOIRA because there was a 90 day time period limit per Executive Order between the periodic regulation review and report preparation. Staff suggested that CBF include their comments regarding the nutrient policy along with their comments about the nutrient enriched waters section of the water quality standards regulation by the June 22, 2001 close of comments for the triennial review NOIRA for the Water Quality Standards regulation.

An informal advisory group was not formed to assist in this periodic review.

Effectiveness

Please provide a description of the specific and measurable goals of the regulation. Detail the effectiveness of the regulation in achieving such goals and the specific reasons the agency has determined that the regulation is essential to protect the health, safety or welfare of citizens. Please assess the regulation's impact on the institution of the family and family stability. In addition, please indicate whether the regulation is clearly written and easily understandable by the individuals and entities affected.

Specific and measurable goals associated with this regulation have been demonstrated via the reduction of phosphorus in many state waters via nutrient removal technologies in effluents to 2 mg/L.

This provision is justified from the standpoint of public health, safety or welfare in that it allows protection of designated uses of water bodies. Nutrient control protects water quality and living resources of Virginia's waters for aquatic life, recreation use and conservation in general.

The development of water quality policies for the protection of designated/beneficial uses of state waters only has an indirect effect on families and family stability.

Through examination of the regulation and relevant public comments, the agency has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

Alternatives

Please describe the specific alternatives for achieving the purpose of the existing regulation that have been considered as a part of the periodic review process. This description should include an explanation of why such alternatives were rejected and this regulation reflects the least burdensome alternative available for achieving the purpose of the regulation.

The agency considered several alternatives besides the option selected including incorporating the nutrient policy into the section of the water quality standard regulation which designates nutrient enriched waters and including nitrogen requirements and more stringent phosphorus requirements. The choice made was determined to be the less burdensome alternative because:

1. there was no technical basis at the time for determining where nitrogen removal should occur and a voluntary nitrogen removal clause in the regulation allowed for but did not mandate expensive nitrogen removal treatment,
2. the 2 mg/L level of phosphorus removal was achievable with a less burdensome cost alternative for treatment of BNR,
3. a separate, stand alone regulation for nutrient control would avoid the extra burden of requiring EPA review and approval of the regulation every time it was amended whereas EPA review and approval would be required if it were part of the water quality standards regulation, and
4. the policy would achieve point source controls at phosphorus levels targeted for meeting the 40% reduction in the Chesapeake Bay agreement.

Recommendation

Please state that the agency is recommending that the regulation should stay in effect without change.

The Department recommends that the regulation should stay in effect without change.

This recommendation is made in recognition that the Environmental Protection Agency is developing - with state input – water body and region specific nutrient criteria. States must adopt these Environmental Protection Agency nutrient criteria or develop their own criteria for estuarine waters by 2003 and freshwaters by 2004. Therefore, the Department will retain this regulation for now and decide as part of a future nutrient criteria rulemaking whether or not to

amend or delete this current regulation and the accompanying section of the Water Quality Standards regulation.

Family Impact Statement

Please provide an analysis of the regulation's impact on the institution of the family and family stability including the extent to which it: 1) strengthens or erodes the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourages or discourages economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthens or erodes the marital commitment; and 4) increases or decreases disposable family income.

The development of water quality policies for the protection of designated/beneficial uses of state waters only has an indirect impact on the institution of the family and family stability.