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Notice of Intended Regulatory Action (NOIRA) Agency Background Document

Approving authority name	State Water Control Board
Virginia Administrative Code (VAC) citation	9 VAC 25-260
Regulation title	Water Quality Standards
Action title	Adopt, modify or cancel Water Quality Standards, including numerical and narrative criteria, use designations, classifications, site specific or special standards, stream descriptions, antidegradation and implementation procedures such as mixing zones, variances and assessment, monitoring and permitting procedures.
Document preparation date	March 21, 2006

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 21 (2002) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

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 updated numerical and narrative criteria, use designations and other policies contained in the Water Quality Standards.

The intent of this rulemaking is to protect designated and beneficial uses of 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 under the Clean Water Act at 303(e).

This rulemaking is needed because the last triennial review was completed in February 2004 and new scientific information is available to update the water quality standards. Changes to the regulation are also needed to improve permitting, monitoring and assessment programs. In

addition, the agency has to fulfill the legal mandates for a three-year review under the Code of Virginia §62.1-44.15(3a) and federal regulations 40 CFR 131.

The goal is to provide the citizens of the Commonwealth with a technical regulation that is protective of water quality in surface waters, reflects recent scientific information, reflects agency procedures and is reasonable and practical.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., 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) require that water quality standards be adopted, modified or cancelled every three years. These are the most relevant laws and regulations. The promulgating entity is the State Water Control Board.

The Clean Water Act authorizes restoration and maintenance of 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 Federal regulations at 40 CFR 131 authorize 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 State Water Control Law authorizes protection and restoration of the quality of state waters, safeguarding the clean waters from pollution, prevention and reduction of pollution and promotion of 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 the amendments being considered are modifications of criteria that will protect designated uses and criteria and designated uses are requirements of the Water Quality Standards.

The authority to adopt standards as provided by the provisions in the previously referenced citations is mandated, although the specific standards to be adopted or modified are discretionary to the Environmental Protection Agency and the state.

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 sections. It should be noted that all sections of the regulation are open for comment during this mandated triennial review and a revision, addition or deletion could potentially occur in any section of the regulation. However, revisions under consideration to date have been listed in the substance and alternatives sections.

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 existing regulation will be changed to reflect new scientific information and to clarify the regulation. Changes will also be proposed to improve implementation of these standards in Virginia Pollutant Discharge Elimination System permits and in monitoring and assessments of surface waters. Some of the changes will be to numerical and narrative criteria, use designations, classifications, site specific or special standards, stream descriptions, antidegradation and implementation procedures such as mixing zones, variances and assessment procedures.

The following are issues under consideration but DEQ staff will work in conjunction with other state and federal agencies and the public to include other amendments.

The Department has not accepted or rejected any of these issues as of yet. Some issues under consideration by the agency now include, but are not limited to, the following:

Water Quality Standards 9 VAC 25-250-5 et seq.

1. Modify, add or delete any section, criteria, use designation, standard, policy to conform with EPA guidance, clarify state intent, implement state programs (e.g. permitting, monitoring and assessments), improve water quality or protect beneficial uses.

Use Designation Issues 9 VAC 25-260-10:

2. Clarify that designated use removal option in subsection H.6 refers specifically to section CWA §301(b)(1)(A and B).

Mixing Zone Issues 9 VAC 25-260-20:

3. Clarify General Criteria and how it applies to mixing zones.
4. Clarify mixing zones for human health, pH, DO, temperature, nutrients.

5. Clarify mixing zone application to other water programs (e.g. Virginia Water Protection Permits).
6. Modify subsection B.11.b to match language in antidegradation section 30.A.2 which refers to 'new and existing dischargers' rather than 'new and increased dischargers'.

Antidegradation Issues 9 VAC 25-260-30:

7. Clarification of antidegradation subsection A.2 (tier 2) so that highest statutory and regulatory requirements that are applicable to all new or existing point source discharges refers to best available technology (BAT) or secondary treatment or new source performance standards, and any more stringent requirements imposed under State law or regulation for point source requirements. Non point source controls refer to only cost-effective and reasonable best management practices.
8. Incorporate an additional 'tier' designation (i.e. Tier 2.5) to maintain higher quality streams and/or clarify existing tier designations (subsections A.1, A.2 and A.3).
9. Clarify whether or not Exceptional (tier 3) waters in subsection A.3 include impaired waters.
10. Incorporate exceptional (tier 3) waters into the River Basin Section Tables.
11. Exclude the phrase 'is nominated' in the Lake Drummond exceptional waters description in subsection A.3.c.

Bacteria Issues 9 VAC 25-260-160 and 170:

12. Clarify the bacteria criteria so that implementation will be consistent, feasible and protective among all DEQ water programs and the Virginia Health Department.
13. Clarify recreation bacteria criteria also apply in shellfish waters.
14. Clarify disinfection policy and the use of bacteria criteria in permit limits for shellfish and recreational use protection.
15. Remove fecal coliform criterion for recreational use (keep *E. coli* and enterococci).
16. Address wet weather bacteria criteria and/or bacteria criteria applicable to combined sewer overflow areas. This may be accomplished through seasonal primary recreation uses, use removal or variance after certain rainfall or during certain flows, higher acceptable level for excursions, application of geometric mean or single sample maximum, alternate illness rates (risk level), or other methods as appropriate. Some of these options may be appropriate statewide.
17. Clarify how the bacteria maximum (or maximum percentile) and geometric mean are to be interpreted (e.g. if both the bacteria max and mean apply; if meeting the max or the mean is protective of the use; clarify how the max and mean are to be used for each program (monitoring, assessments, TMDL, beach closure, permits).
18. Adjust the bacteria criteria so the beach closings decisions are made consistent with the regulation (per the Virginia Department of Health). Options include but are not limited to using the mean for assessments, the max for beach closings, incorporate a weekly or seasonal mean, clarify number of samples needed.
19. Remove or clarify the site-specific standard deviation footnote #2 from the recreational bacteria criteria.
20. Address different illness rates (risk levels) for recreational criteria in marine vs. fresh waters.

21. Remove primary contact uses as appropriate using a use attainability analysis (seasonally, by stream order, site by site).
22. Clarify or exclude wildlife bacteria as 'natural' bacteria from the recreational bacteria criteria.

Criteria Issues 9 VAC 25-260-140:

23. Define dissolved oxygen criteria for Class VII (Swamp Waters).
24. Update pH criteria for Class VII (Swamp Waters).
25. Address a fixed rate percent method (i.e. 10% rule) to define allowable excursions of pollutants or some other method as an assessment tool to indicate whether waters are fully supporting or impaired.
26. Include enhanced biological narrative criteria (e.g. reference methodologies in regulation).
27. Define number of significant digits that criteria must be expressed as and how this will be used to judge compliance for permitting and assessments.
28. Remove chloride criterion from transition zones.
29. Address maximum temperature criteria and recreational uses.
30. Delete wildlife application statement from toxaphene criteria.
31. Update numerical criteria for aquatic life and human health protection (e.g. chlorine, lead, copper, methyl mercury, TBT, diazinon, toxaphene, nonylphenol fluoride, radionuclides, fish tissue (e.g. mercury), 19 other human health criteria or just include methodology) based on new scientific information.
32. Simplify duration and return frequency of toxics criteria.
33. Add total dissolved solids numerical criteria for aquatic life protection.
34. Correct 9 VAC 25-260-140 Paragraph A footnotes from #2 and 3 to #1 and 2.
35. Include low flow exemptions for non-conventional criteria (e.g. toxics).
36. Incorporate water quality criteria for PCBs, DDT and mercury to protect fish and aquatic-dependent wildlife resources.
37. Combine dibutyl phthalate and di-n-butyl phthalate and chlorobenzene and monochlorobenzene criteria.
38. Make consistent concentration units (i.e. ammonia is ppm in section 155 but ppb in 140).
39. Define conversion factors (listed as CFa and CFc) in table section 140.
40. Identify iron and manganese (taste and odor criteria applied at water supply intakes) as 'total' or 'dissolved.' Also identify mercury, selenium and human health criteria as total or dissolved.
41. Add sections 60, 70 and 80 to temperature criteria listing in table 140.
42. Make the freshwater, saltwater, transition zone boundaries in subsection C consistent with the Bay segmentation scheme (9 VAC 25-260-185 subsection D).

Bay Related Issues 9 VAC 25-260-185:

43. Identify whether shallow water use designations apply in SAV 'no grow zones' or segments with no historical SAV documented.
44. Clarify assessment methodology for shallow water use and application of SAV acreage criteria and/or water clarity acres.
45. Address assessment methodology for short term (i.e. 1 day, 7 day, instantaneous) oxygen criteria in Bay and tidal tributary waters.

46. Update Bay segmentation scheme to separate smaller tidal tributaries or embayments from larger Bay segments.
47. Update CFD curves in subsection D.
48. Clarify the period over which the DO assessment should be done (annual, seasonal or summer vs. rest of year).

Special Standards Issues 9 VAC 25-260-310:

49. Update Chickahominy special standard ‘m’ change exclusion to ‘discharges consisting solely of storm water.’ Update variance for total phosphorus for Tyson Foods and make consistent or clarify discharge limits for settleable solids and ammonia nitrogen.
50. Delete obsolete special standards (e.g. chloride special standard ‘s’).
51. Clarify special standard ‘y’ upstream boundaries (tidal fresh Potomac River ammonia criteria where early life stages of fish are not present).
52. Add special standard for pH in epilimnion of lakes where naturally higher than 9.0.
53. Include site specific criteria for manganese in the Roanoke River near Clover, VA due to high natural background.
54. Determine which streams in Upper James section 430 in paragraphs 12 and 12a are eastern slope streams that drain south and remove the special pH standards (e.g. St. Marys River)
55. Adjust limestone streams pH criteria to 6 – 9.5 in naturally affected areas.
56. Verify special pH standards of 6.5 – 9.5 in southwest VA.
57. Include site specific criteria for pH and dissolved oxygen for Lake Drummond.

Trout Water Issues 9 VAC 25-260-50, 310, 370, 380, 390 – 540:

58. Add, modify or delete trout waters as appropriate.
59. Verify trout water designation paragraph 7, 7a and 7b in section 450, Roanoke River in vicinity of Salem.
60. Adjust temperature criteria or application of temperature criteria to stockable streams in summer (e.g. Beaver Creek, Cedar (Shenandoah), Hawksbill, Hogue, Back, Cedar (Bath), Sweet Springs, Roanoke South Fork Roanoke (Salem and Roanoke), Tinker, Dan, Lovills, Big Indian, South Branch Potomac, Mill (Shenandoah and Rockbridge) but may have statewide application).
61. Verify trout water designation for Batie Creek in the Clinch River Subbasin in Lee County.
62. Revise section 540 New River, paragraph 1h Bluestone River natural trout waters routes 650 to 720.
63. Clarify in section 450 Roanoke River paragraph 6d Glade Creek stockable trout designation.

River Basin Issues (9 VAC 25-260-360 through 540):

64. Add Class VII (Swamp Water) designations as appropriate.
65. Add, modify or delete public water supply segments as appropriate.
66. Clarify that all public water supply segments are designated from point A to ‘points’ 5 miles upstream of all tributaries.
67. Subdivide section 1 of lower James section 410 for application of special standards ‘a’ and ‘z’.

68. Clarify in the Appomattox subbasin section 415 section 5b should say 'free flowing tributaries to section 5a.'
69. Delete section 7 in middle James section 420 and incorporate into lower James section 410.
70. Clarify section 430, section 12 James basin (Upper) description to indicate where special pH standard applies.
71. Clarify section 420 James (Middle) basin sections 10 and 10a to indicate public water supply designation and eliminate overlapping sections.
72. Extend public water supply designation in Rappahannock (section 440) between Golin Run and Rapidan River.
73. Remove the Smith Creek (Town of New Market) public water supply section 400 paragraph 6e.
74. Add public water supply latitude / longitude intake locations.
75. Clarify if Chickahominy tributaries in section 410 are also supposed to be public water supply (section 3a).
76. Clarify or delete Wythe-Bland public water supply in section 540, section 1k New River basin.
77. Update buoy numbers in tidal section descriptions.
78. Clarify if the Blackwater River in section 450, Roanoke basin sections 6a, 6f and 6i is Class III (non-tidal coastal and piedmont) or Class IV (mountainous zone).
79. Remove Yadkin River from the Roanoke Basin (section 460).
80. Close parenthesis in Tennessee and Big Sandy (Big Sandy section 490 paragraph 4e (around Elkhorn City).
81. Section 490 Tennessee and Big Sandy (Big Sandy) paragraph 4e Russell Fork should include Class V stockable trout water from paragraph 4.
82. Remove Nutrient Enriched Water special standard notations from the River Basin Section Tables if they have been deleted from 9 VAC 25-260-350.
83. Incorporate the hydrologic unit scheme from the Department of Conservation and Recreation.
84. Clarify southern boundaries to Lynnhaven and other streams in VA Beach that flow to the Chowan basin.
85. Clarify location and name of West Fork Peak Creek, New River basin section 540.
86. Incorporate Bay segmentation scheme into existing tidal river basins (sections 390, 410, 415, 440, 520 and 530).
87. Specify where the Bay watershed ends in the Lynnhaven and where the southern watersheds (drain to North Carolina) in the Chowan begins (sections 520 and 480).
88. Modify Single Creek Classification to a Class II-transition zone in section 410 section 1g.

Miscellaneous Issues:

89. Add alternate criteria or a variance for benthic aquatic life uses below dams.
90. Include various assessment procedures (e.g. narrative criterion translator for benthic assessment, weight of evidence approach to Bay toxics assessments, toxicity testing for toxics assessment, trend analysis methodology, trophic state index for lakes assessment, nutrient screening values, natural impairment methodology, fish tissue values).
91. Change section 140 E to new reference 9 VAC 25-260-10 H.
92. Update water effect ratio and variance procedures.

93. Clarify requirements in section 9 VAC 25-260-270 (Shellfish buffer zones; public hearing).
94. Remove or clarify section 290 (tidal water sampling requirement).
95. Update or remove scenic river listing in 9 VAC 25-260-320 as they have no regulatory requirements for DEQ.
96. Add Appomattox subbasin to basin descriptions in section 360.

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, please describe the process by which the agency has considered or will consider other alternatives for achieving the need in the most cost-effective manner.

One alternative is to keep the current water quality standard regulation unchanged or to delay the triennial review. This was not chosen since the state is mandated to review the water quality standards regulation every three years and another review is due. Also, many issues have been identified by monitoring, assessments and permitting staff that need to be addressed as soon as possible to meet other agency Clean Water Act deadlines (e.g. 2008 Clean Water Act 305(b) report). These issues are included in the ‘substance’ section. Each issue listed may have a more cost effective alternative or any individual issue may be accepted or rejected. The Department will solicit public input during the review and consider other alternatives and issues presented by the public which also meet the goals of the regulation and of the agency.

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.

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 background document or other alternatives and 3) impacts of the regulation on farm and forest land preservation. The Board is also seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include 1) projected reporting, recordkeeping and other administrative costs, 2) probable effect of the regulation on affected small businesses, and 3) description of less intrusive or costly alternative methods of achieving the purpose of the regulation.

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 Elleanore Daub, P.O. Box 10009, Richmond, VA 23240-0009, (804) 698-4116 (fax), emdaub@deq.virginia.gov. Written comments must include the name and address of the commenter. In order to be considered comments must be received on

the date established as the close of the comment period. Questions may also be directed to Ms. Daub at (804) 698-4111 or toll free in Virginia (800) 592-5482 ext. 4111.

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 to develop a proposal. Persons interested in assisting in the development of a proposal should notify the department contact person by the end of the comment period and provide their name, address, phone number, email address and the organization you represent (if any). Any persons who want to be on the advisory committee are encouraged to attend the public meeting mentioned above. The primary function of the advisory committee is to develop recommended regulation amendments for Department consideration through the collaborative approach of regulatory negotiation and consensus. Multi-applications from a single company, organization, group or other entity count as one for purposes of making the decision specified in the preceding sentence. Notification of the composition of the advisory committee will be sent to all applicants.

Family impact

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 and the protection of water quality in surface waters which has only an indirect impact on families.