



Virginia
Regulatory
Town Hall

Final Regulation Agency Background Document

Agency Name:	Department of Environmental Quality
VAC Chapter Number:	9 VAC 25-260
Regulation Title:	Water Quality Standards
Action Title:	State Water Control Board Adoption of Amendments to the Water Quality Standards for Bacteria and a Site-Specific Chronic Winter Ammonia Criteria for Some Waters in the Potomac River Basin
Date:	June 5, 2002

Please refer to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), Executive Order Fifty-Eight (99) , and the *Virginia Register Form, Style and Procedure Manual* for more information and other materials required to be submitted in the final regulatory action package.

Summary

Please provide a brief summary of the new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment; instead give a summary of the regulatory action. If applicable, generally describe the existing regulation. Do not restate the regulation or the purpose and intent of the regulation in the summary. Rather, alert the reader to all substantive matters or changes contained in the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. Please briefly and generally summarize any substantive changes made since the proposed action was published.

Water Quality Standards consist of designated uses of the water body and narrative and numeric criteria that protect those uses by describing water quality in general terms and specifically as numerical limits for physical, chemical and biological characteristics of water.

The State Water Control Board adopted amendments to the State's Water Quality Standards Regulation at 9 VAC 25-260-5, 160, 170, 310 and 390. The amendments update the statewide bacteria criteria to match updates published by the Environmental Protection Agency (EPA). The bacteria criteria proposed are designed to protect all state waters for primary contact recreation (swimming). Also included are reworded shellfish bacteria criteria that reflect the

National Shellfish Sanitation Commission recommendations for fecal coliform levels in shellfish waters. The amendments also incorporate a site specific chronic ammonia criterion for some Potomac River tributaries. All of these amendments will be used in calculating Virginia Pollutant Discharge Elimination System permit limits where appropriate and for water quality assessments per the Clean Water Act 305(b) and 303(d) reports.

The State Water Control Board deferred making a decision on 9 VAC 25-260-140 and 155 that included revised statewide ammonia criteria. The criteria will be reconsidered at the July State Water Control Board meeting.

The adopted amendments to 9 VAC 25-260-5, 160, 170, 310 and 390 will become effective 30 days after publication in the Virginia Register of Regulations of a notice that the amendments have been approved by the U.S. Environmental Protection Agency.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency: including the date the action was taken, the name of the agency taking the action, and the title of the regulation.

At their May 6, 2002 meeting, the State Water Control Board adopted the amendments to the Water Quality Standards regulation in 9 VAC 25-260-5, 160, 170, 310 and 390 and deferred action on proposed amendments to 9 VAC 25-260-140 and 155.

Basis

Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable, please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and, if available, web site addresses for locating the text of the cited authority, shall be provided. If the final text differs from that of the proposed, please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the final regulation and that it comports with applicable state and/or federal law.

§ 62.1-44.15(3a) of the Code of Virginia, as amended, mandates and authorizes the Board to establish water quality standards and policies for any State waters consistent with the purpose and general policy of the State Water Control Law, and to modify, amend or cancel any such standards or policies established. The federal Clean Water Act at 303(c) mandates the State Water Control Board to review and, as appropriate, modify and adopt water quality standards. The corresponding federal water quality standards regulation at 40 CFR 131.6 describes the minimum requirements for water quality standards. The minimum requirements are use designations, water quality criteria to protect the designated uses and an antidegradation policy. All of the citations mentioned describe mandates for water quality standards.

Web Address sites where citations can be found:

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>

The content of the statutory authority is related to the specific regulation in that the amendments are modifications of existing criteria that will protect designated uses and criteria and designated uses are requirements of the water quality standards.

The proposed amendments do not exceed federal minimum requirements.

The Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and it comports with applicable state and/or federal law.

Purpose

Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the final regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.

Water Quality Standards establish the requirements for the protection of water quality and of beneficial uses of these waters. The purpose of this rulemaking is to update the statewide ammonia and bacteria criteria and recreational uses to match updates published by the Environmental Protection Agency.

The amendments are needed because EPA has published updates to these criteria for the states to incorporate into their water quality standards. EPA's updates contain more recent scientific information. All states are required to consider these updates when amending their water quality standards. The updates to the bacteria criteria are particularly important because EPA disapproved Virginia's fecal coliform bacteria criteria and has specifically required Virginia to update these standards to match EPA's guidelines. If the new bacteria criteria are not adopted, EPA will promulgate the new criteria for Virginia.

This provision of the regulation is justified from the standpoint of the public's health, safety or welfare in that it allows for the protection of designated uses of the water bodies. Proper criteria protect water quality and living resources of Virginia's waters for consumption of fish and shellfish, recreational uses and conservation in general.

The goal of the proposal is to protect state waters at levels that are scientifically correct and protective of human health and aquatic life. The proposal will allow EPA to approve Virginia's bacteria criteria, which is a required approval under the Clean Water Act. The site-specific ammonia criterion is also based on EPA guidance; therefore, it is protective of water quality and will gain approval by EPA. It will also help implement the ammonia criterion in such a way that the localities in the northern Virginia area will be able to meet their winter ammonia limits.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement of the regulatory action's detail.

There were several changes made with regard to bacteria criteria. In 9 VAC 25-260-5, a definition for primary contact recreation in support of the new bacteria criteria was included. The bacteria criteria in 9 VAC 25-260-160 and 310 (special standard "a") were updated to match National Shellfish Sanitation Commission (NSSC) recommendations for fecal coliform levels in shellfish waters. The bacteria criteria in 9 VAC 25-260-170 were expanded to include EPA's 1986 designated swimming area criteria recommendations for enterococci and *E. coli* in all state waters and the fecal coliform criteria were revised to match EPA's 1976 criteria for fecal coliform. The fecal coliform criterion has a "sunset clause" associated with it to phase out the fecal coliform criteria as DEQ collects more data on the new bacterial indicators (enterococci and *E. coli*). The Board's disinfection policy for sewage effluents was updated in 9 VAC 25-260-170 B to reflect the new bacteria criteria.

The State Water Control Board deferred VAC 25-260-140 and 155, which contained the deletion of the existing ammonia criteria and the proposed new ammonia criteria. A decision on these sections will be made at the next meeting of the State Water Control Board in July.

In 9 VAC 25-260-310 and 390, several localities in the northern Virginia area conducted a site-specific study that demonstrates what the appropriate ammonia criterion should be in some of the tidal Potomac River tributaries. The site-specific criterion is applicable November through February. This determination is incorporated into the regulation as an amendment to the special standards section as "y".

Issues

Please provide a statement identifying the issues associated with the final regulatory action. The term "issues" means: 1) the advantages and disadvantages to the public of implementing the new provisions; 2) the advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

The primary advantage to the public is that the updated criteria are based on better scientific information to protect water quality. For example, the updated bacteria criteria (enterococci and

E. coli) are proven to be better indicators of the risk of contracting a gastrointestinal illness while swimming than the existing indicator (fecal coliform).

A potential disadvantage to the public may occur in the implementation of the new indicator bacteria criteria. The new indicators are more expensive to analyze than the existing criteria. These expenses have been outlined in the Economic Impact Assessment. However, the DEQ is studying the levels at which chlorine disinfection reduces the levels of these bacteria to the levels specified by the criteria. This type of study was done to implement the existing fecal coliform criteria and that study resulted in most permittees getting a specified chlorine residual limit rather than a fecal coliform limit. If DEQ cannot demonstrate that chlorine disinfection of effluent is sufficient to remove the indicator bacteria to acceptable levels, then the wastewater treatment facilities permittees may be required to measure these additional indicators directly in the effluent rather than just measuring for chlorine residual for discharge monitoring reporting requirements.

Regarding the advantages or disadvantages to the agency for the bacteria amendments, limited data indicate that there may be equal and possibly more impaired waters using the new bacterial indicators. In addition, the agency may be disadvantaged financially because the new bacteria criteria will require more monitoring expenses. These expenses are outlined in the Economic Impact Assessment.

Statement of Changes Made Since the Proposed Stage

Please highlight any changes, other than strictly editorial changes, made to the text of the proposed regulation since its publication.

The bacteria criteria in section 9 VAC 25-260-170 were changed from the proposed so that only one criterion (*E. coli*) applies in freshwaters (previously, both enterococci and *E. coli* applied in freshwaters). Enterococci still is the only criterion in saltwater and the final text was modified so that the enterococci criterion now applies in transition zone waters.

One clarification was made in 9 VAC 25-260-170 paragraph B (disinfection policy) to make it clear that permit limits only have to meet the criteria set forth in paragraph A 2 of that section rather than all the criteria in the paragraph A. This results in permit limits being based on just the new criteria and not both fecal coliform and the new criteria.

In 9 VAC 25-260-310, staff changed special standard "a" (Shellfish Waters) in this section to also match the reworded National Shellfish Sanitation Commission (NSSC) shellfish fecal coliform criteria. This was done to match the changes that were proposed in Section 9 VAC 25-260-160.

Also, in 9 VAC 25-260-310 special standard "y" was revised from the proposal to incorporate the site-specific equation to calculate the criterion rather than a reference to the equation in 9 VAC 25-260-155 since that section was deferred.

All other changes in the text were strictly editorial.

Public Comment

Please summarize all public comment received during the public comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

Alexandria Sanitation Authority, Arlington County, Fairfax County and Prince William County Service Authority, Christopher Pomeroy, McGuire Woods LLP:

- Support the adoption of the revised EPA ammonia criteria and the applicability of the early life stages absent provision to those waters identified in prior comments. The revised criteria reflect the latest scientific understanding of ammonia toxicity.
- Agree that antibacksliding does not apply to implementing a winter tiered limit based on the early life stage absent provisions.
- Incorporated by reference previous comments and information submitted by the localities. Previously, the localities had submitted all the data information to support a site-specific criterion for some northern Virginia waters based on EPA's early life stage absent provision.

Chesapeake Bay Foundation, Jeff Corbin, Senior Scientist:

- Supports the new bacteria criteria as long as the revised criteria were applied to all waters to be protective of a full contact, frequent swimming designated use.
- Opposes downgrading recreational uses because this is inconsistent with the goal of the Clean Water Act to improve waters to support recreation in and on the waters.
- Should focus on improving water quality instead of expending efforts to alter standards and designated uses.
- Citizens assume that all waters are available to swim and to change uses based on frequency of use is not appropriate.
- Questions whether changing the level of recreational use is beneficial to point or nonpoint sources since the data show that waters are still highly contaminated even at lower use designations.
- For all these reasons, DEQ should promulgate the new bacteria indicators and apply them to all state waters at the level of a designated swimming beach.
- The proposed ammonia criteria are in direct conflict with the toxic goals in the 2000 Bay Agreement.
- Under no obligation to adopt revised criteria that would result in a significant increase in pollution discharge to state waters (four times as much ammonia under certain situations).
- Should suspend adoption of the new ammonia criteria until the federal review of the protectiveness of the new criteria to endangered species is completed.
- Pollution prevention must be considered before any less stringent criteria are allowed in a permit if the more stringent limits can be attained through enhancements in treatment processes or pollution prevention measures. This is a state law requirement.
- For these reasons, the DEQ should continue to implement the current acute and chronic criteria for ammonia.

Dominion Virginia Power, Pamela Faggert:

- Supports DEQ's proposal to adopt EPA's 1999 freshwater ammonia criteria which have a more current and sound technical basis than Virginia's existing ammonia criteria.

Franklin County Richard E Huff, II, County Administrator and Bonnie Johnson, Assistant County Administrator:

- Supports reasonable efforts to improve water quality and some creeks and streams should be designated as primary where appropriate.
- Objects to primary contact designation as a blanket designation for all waters as this disregards and precludes the legitimate use of state waters for agriculture.
- Farmers should use their local creeks for their highest and best use, which is to support adjoining agricultural operations.
- Franklin County has been an agrarian community for over 200 years and is the second largest dairy farming county in the Commonwealth.
- Primary contact will cause drastic changes in agricultural operations and all the public and private expenditures will not result in increased recreation in these areas (streams would still be inaccessible, shallow, and low flow).
- Presence of wildlife also precludes meeting the primary use in these areas.
- Mistaken assumption that all waters are primary contact would lead to classifying waters as "polluted" which would trigger a costly TMDL. The TMDL identifies the source as wildlife or livestock and unless the Board intends to eliminate these sources, will result in another rulemaking to change the use.
- Funding plan and funding sources must be developed for the proposal. The Board acknowledges the "significant costs" to this proposal for costs for fencing or buffer areas. Why does the Board want farmers and other citizens to expend limited resources when there is no desire by the public to use those creeks and streams for swimming? The public wants to use some waters to continue to support agriculture.
- Economic impact on families to implement best management practices (BMP) must be included. A BMP program can cost a farmer as much as \$120,000 and implementation of these programs statewide over a 10-yr period can cost more than \$1 billion. Farm families are subject to low milk prices so more debt is not possible.
- Impact on groundwater if farmers are prohibited from watering their stock in stream should be analyzed. Ground water supplies are already low.
- Agriculture is a necessity for jobs, maintenance of open space and protection of groundwater supplies, provision of needed goods in the economy, stimulation of associate services and contributions to the cultural vitality of the community.
- Proposal should include a "petitioning process" for designation of waters for agriculture so that the historic levels associated with agricultural operations remain the same.

James River Association, Patricia Jackson, Executive Director:

- Agrees with the use of both enterococci and *E. coli* criteria to replace the present fecal coliform criteria but support the continuance for fecal coliform monitoring (for several years) to determine a correlation between past and future data.
- Opposes any effort to reduce the level of protection provided by primary contact recreation in all state waters.
- Opposes the proposed ammonia standards because DEQ must reduce ammonia in state waters to reduce toxic impacts and to meet the nutrient reduction goals of the Chesapeake Bay Agreement and tributary strategies. Therefore, the existing ammonia standards should be retained.

Senator Wm. Roscoe Reynolds, 20th Senatorial District:

- Supports the requests made by Franklin County and urges the Board to modify the proposed regulation to minimize adverse impacts on agriculture.

Southern Environmental Law Center, Katherine Slaughter and Pilar Penn:

- Opposed to the proposed ammonia criterion because it runs counter to toxics reduction goals and may allow up to four times as much ammonia discharge under certain situations.
- Should maintain the existing more stringent criteria in order to protect endangered mussels or at least suspend adoption of the new criteria until there has been a federal review validating that the proposed criteria will protect endangered fresh water mussels.
- Site-specific modifications for early life stages should include a determination that there are no amphibious species present.
- Focus on the toxicity of ammonia in these situations rather than the engineering capacity problems mentioned by the municipalities, which favors higher ammonia discharge in order to shift more capacity in winter to nitrogen removal.
- Supports the change in the bacteria standards from fecal coliform to *E. coli* or enterococci provided that DEQ focus on improving water quality statewide so all waters meet the swimmable/fishable designation.
- Many children and families swim or wade or play in a local swimming hole. If it is not safe to swim, the DEQ and the Health Department should inform the public.
- Should focus on improving water quality, not altering standards or designated uses to fit existing conditions.
- Concerned that the analysis of the data shows that the exceedance rate for the *E. coli* standard is significantly less than the exceedance rate of the fecal coliform standard.

Virginia Association of Muncipal Wastewater Agencies, Christopher Pomeroy, McGuire Woods LLP:

- Supportive of the revised EPA ammonia criteria proposed by the DEQ with the early life stage provision. These criteria are more scientifically accurate and promote the concept of protecting aquatic life during the time frame they are actually present in the water body. These are not a lowering of protection or uses, but a more accurate threshold to protect the existing uses.
- Agrees with comments made in support of the four Northern VA communities seeking site-specific ammonia criteria (see comment summary for Alexandria, Arlington, Fairfax and Prince William).
- Previous submissions to DEQ on the EPA bacteria criteria have questioned the validity of the low bacteria criteria values and the scientific inappropriateness of using a maximum concentration that is less than one order of magnitude higher than the geometric mean. Bacterial measurements can not adequately distinguish between geometric means set forth in the proposal and the single sample maximums.
- Concerned that there is no approved 40 CFR Part 136 methods for effluent monitoring of these criteria. The methods that are available are for ambient waters and not for use in effluent.
- Concerned about DEQ accepting without documentation the Health Department's January 11, 2001 request to use both *E. coli* and enterococcus in fresh water. There is nothing in the

record to support the dual adoption of equally stringent criteria. The costs of an additional standard beyond the recommended Federal action must be justified.

- Shellfish criteria and the disinfection policy (which refers to the saltwater enterococcus criteria) both apply in most saltwater and contradict one another. There is no justification for one effluent to have two limits, one for each variation of the bacteria criterion. The impact of this dual standard has not been considered.
- Concerned over how the change in bacteria criteria will affect effluent limits. Current effluent limits are protective of primary contact and shellfish. It is well documented that wet weather runoff rather than POTW effluents are the causes of fecal criteria violations.
- Support maintaining current fecal limits or using process monitoring parameters such as chlorine residual in lieu of effluent limits forth new indicators. Recommendation is supported by the fact the 40 CFR 136 analytical methods are not approved for these new criteria in effluents. If DEQ believes new effluent limits are needed, VAMWA will cooperate in studies that demonstrate what types of effluent limits are needed.

Virginia Department of Health, Robert Stroube, M.D. M.P.H., Acting State Health Commissioner:

- Supportive of DEQ replacing the existing fecal coliform criteria with EPA's 1986 Ambient Water Quality for Bacteria.
- Previous concern was that using only enterococci as an indicator might result in losing sensitivity in their analysis to animal fecal contamination of Virginia's waters (*E. coli* is found in all warm blooded animals and enterococci are a subset of the fecal streptococci more commonly found in humans).
- Had originally recommended both indicators for freshwater.
- Believes the data collected by DEQ for enterococci, *E. coli* and fecal coliform shows that enterococci would be protective of human health in waters know to be impaired by animal fecal contamination.
- Advised by the scientists at the Virginia Institute of Marine Science that the use of enterococci as an indicator in freshwater results in a large number of false positive results. The false positive rate was verified at EPA laboratories. From this, the VDH believe the use of *E. coli* as the indicator for freshwaters and enterococci as the indicator for marine waters is appropriate.

Virginia State Dairymen's Association, Dale Gardner, Executive Secretary-Treasurer:

- Believe the Board is injecting common sense into the regulation by considering a designation other than primary for some streams.
- Supports reasonable efforts to clean up waterways, but regulations must be scientifically based and attainable.
- Designation other than primary should be considered a more accurate designation for streams with wildlife, streams that are inaccessible to humans and thereby have little chance of causing illness rather than a lessening of water quality standards.
- Should use the process EPA allows to give stream secondary or alternative status (emphasize highest use, potential for human contact and wildlife contribution).
- Should not shift the economic burden to the landowner and the communities to meet or change the standards.

- Should explore every option EPA allows because to act otherwise will increase the economic pressure on farmers in Virginia, result in the continued exodus from agriculture and increase urban sprawl.
- Research does not show that these more stringent standards in secondary streams result in better human health.
- Many dairy farmers (30-40%) in Virginia that do not participate in the regulatory process because of religious beliefs and these individuals and their limited resources must also be considered.

AGENCY RESPONSE:

- Agree that only one bacteria criteria should apply after fecal coliform criteria are removed and that criteria will be *E. coli* for freshwater and enterococci for saltwater,
- Agree that only one criterion need apply to permits. Therefore, added a reference to 9 VAC 25-260-170 B to clarify that all sewage discharges are disinfected to achieve the bacteria concentrations in subsection A 2. This will remove dual requirements for fecal coliform and the new indicators in permits.
- Disagree there is a discrepancy between the disinfection policy and shellfish waters. Two criteria apply in these waters to protect different uses. One protects the shellfish use and the other protects the recreation use. Permit requirements are stated in the disinfection policy and do not result in two different effluent limits.
- Agree that other process monitoring parameters such as chlorine residual can be used in lieu of bacterial limits (as is currently allowed with fecal coliform) and is gathering data to support this current implementation practice for the new criteria.
- Agree other recreational uses may be applicable and has proposed an amendment to the regulation that addresses secondary contact bacteria criteria in a separate rulemaking called "triennial review".
- Disagree that we can set up a process in the regulation for removing primary contact uses that is similar to the dual ammonia requirements for presence or absence of early life stages of fish. EPA does not view the early life stage absent provision as a use removal and therefore provided DEQ with this procedure. We have been unsuccessful in the past with EPA allowing VA DEQ to set up alternate uses or criteria for streams based on definitions or procedures (EPA required site specific amendments to the regulation). In addition, EPA has provided draft guidance that reiterates their requirements for recreational use removals. In this draft guidance, EPA accepts only the allowances for use removals provided in 40 CFR 131 (Water Quality Standards Regulation) which includes EPA's review and approval after the public participation process. They also recommend a socio-economic demonstration along with any demonstration of a recreational use removal. DEQ understands that this guidance will be published later in 2002 for public comment. However, any person may petition the Board at any time to change a regulation by following the requirements in the public participation guidelines at 9 VAC 25-10-20. Bear in mind that DEQ is setting up a framework for secondary contact waters in the triennial review rulemaking. If this new framework is adopted, this may be a more appropriate time to recommend specific waters for use changes.
- Since the ammonia criterion has been deferred, all responses to the ammonia criteria comments will be published when that criterion is finally adopted.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description - or crosswalk - of changes implemented by the proposed regulatory action. Include citations to the specific sections of an existing regulation being amended and explain the consequences of the changes.

In 9 VAC 25-260-5, a definition for primary contact recreation has been added in support of the new bacteria criteria.

The State Water Control Board deferred VAC 25-260-140 and 155, which contained the deletion of the existing ammonia criteria and the proposed new ammonia criteria. A decision on these sections will be made at the next meeting of the State Water Control Board in July.

In 9 VAC 25-260-160, the shellfish bacteria criteria were reworded to reflect the National Shellfish Sanitation Commission (NSSC) recommendations for fecal coliform levels in shellfish waters. One change from the proposal was made that is related to these shellfish criteria. Since these shellfish criteria are mentioned in another section of the regulation (special standards), staff changed special standard "a" (shellfish water) in 9 VAC 25-260-310 to also match the reworded NSSC shellfish fecal coliform criteria. These changes are corrections and have no consequence to the Department of Environmental Quality or the Division of Shellfish Sanitation.

The bacteria criteria for swimming waters (primary contact recreation) were updated in 9 VAC 25-260-170 to include the EPA 1986 designated swimming area criteria recommendations for enterococci and *E. coli*. These criteria apply in all state waters since all waters of the Commonwealth are designated for recreation (e.g. swimming and boating). A substantive change to this section was made in response to public comment. In the proposal two bacteria criteria for freshwater were recommended; the final amendment contained only one bacteria criteria for freshwater (*E. coli*). The saltwater criterion was not changed and enterococci remains the sole indicator in saltwater. Furthermore, the saltwater criterion was adjusted so that it applies to transition zones as well as saltwater. Transition zones are defined in the regulation at 9 VAC 25-260-140 C. These changes will allow EPA to approve Virginia's bacteria criteria. These criteria will be used to do water quality assessments, determine which waters in Virginia are impaired and in need of a Total Maximum Daily Load (TMDL), and to calculate Virginia Pollutant Discharge Elimination System permit limits for bacteria.

The existing fecal coliform bacteria in 9 VAC 25-260-170 were revised to match the fecal coliform criteria published by EPA in 1976. This criterion has a "sunset clause" associated with it to phase out the fecal coliform criteria as DEQ collects more data on the new bacterial indicators (enterococci and *E. coli*). This will allow for a transition to the new criteria for assessment purposes and will support the finalization of those fecal coliform TMDLs that are near completion to keep up with the EPA's TMDL development schedule.

The Board's disinfection policy for sewage effluents was updated to reflect the new bacteria criteria. This paragraph (9 VAC 25-260-170 B) describes permit implementation of the new bacteria criteria. Staff made one clarification in this policy from the proposed version that permit limits would be based on the new criteria and not both fecal coliform and the new criteria.

In 9 VAC 25-260-310 and 390, several localities in the northern Virginia area conducted a site-specific study that demonstrates what the appropriate ammonia criterion should be in some of the tidal Potomac River tributaries. The site-specific criterion is applicable November through February. This determination is incorporated into the regulation as an amendment to the special standards section as “y”. This special standard was revised from the proposal to incorporate the site-specific equation to calculate the criterion rather than a reference to the equation in 9 VAC 25-260-155 since that section was deferred. The special standard “y” is added to the appropriate column in the River Basin Section Tables at 9 VAC 25-260-390. This changes the chronic water quality criterion for ammonia in these waters. Water quality assessments will be based on this new value as well as winter permit limits for discharges to these waters.

Family Impact Statement

Please provide an analysis of the regulatory action that assesses the impact on the institution of the family and family stability including the extent to which 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 development of water quality standards is for the protection of public health and safety, which has only an indirect impact on families.