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Proposed Regulation
Agency Background Document

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9 VAC25-260
VAC Chapter title(s)	Water Quality Standards
Action title	**Triennial Review 2024 Rulemaking to adopt new, update, or cancel existing water quality standards as required by § 62.1-44.15 of the Code of Virginia and the Federal Clean Water Act, 33 U.S.C. §§ 1251**
Date this document prepared	September 22, 2025 (revised 4/10/2026)

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The subject matter of the rulemaking includes updated numerical and narrative criteria, use designations and other policies contained in the Water Quality Standards Regulation (9 VAC 25-260).

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 (VPDES) 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 may require development of a Total Maximum Daily Load, effluent limitations, or further analysis of use removal or modification under the Clean Water Act at 303(e) and Code of Virginia § 62.1-44.19:7.

This rulemaking is needed because the last triennial review was completed in August 2022, and new scientific information is available to update the water quality standards. Changes to the regulation are also needed to ensure Department permitting, monitoring and assessment programs are based on the most recent science and policies. In addition, the State Water Control Board (Board) must fulfill the legal mandates for a three-year review under the Code of Virginia, per § 62.1-44.15(3a), and federal regulations at 40 CFR 131.

Acronyms and Definitions

Define all acronyms used in this form, and any technical terms that are not also defined in the "Definitions" section of the regulation.

BLM	Biotic Ligand Model
Board	State Water Control Board
CAS	Chemical Abstracts Service
Department	Virginia Department of Environmental Quality (or DEQ)
DO	Dissolved Oxygen
DWR	Virginia Department of Wildlife Resources
EPA	U.S. Environmental Protection Agency
PFAS	Per- and polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PWS	Public Water Supply
RAP	Regulatory Advisory Panel
TMDL	Total Maximum Daily Load
VDH	Virginia Department of Health
VPDES	Virginia Pollutant Discharge Elimination System

Mandate and Impetus

Identify the mandate for this regulatory change and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, petition for rulemaking, periodic review, or board decision). For purposes of executive branch review, "mandate" has the same meaning as defined in the ORM procedures, "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Federal and state mandates in the Clean Water Act at 303(c), federal regulations at 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.

Legal Basis

Identify (1) the promulgating agency, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia and Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating agency to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.

The promulgating entity is the State Water Control Board (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.

Purpose

Explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it is intended to solve.

The rulemaking is essential to the protection of health, safety or welfare of the citizens of the Commonwealth because proper water quality standards protect water quality and living resources of Virginia's waters for the designated uses of aquatic life, wildlife, recreation, public water supply, shellfish consumption, and fish consumption.

The intent of this rulemaking is to protect designated and beneficial uses of state waters by adopting a regulation that is technically correct, necessary, and reasonable. Changes to the regulation are also needed to ensure Department permitting, monitoring and assessment programs are based on the most recent science and policies. In addition, the Board must fulfill the legal mandates for a three-year review under the Code of Virginia, per § 62.1-44.15(3a), and federal regulations at 40 CFR 131.

Substance

Briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of Changes" section below.

This rulemaking revises DEQ's Water Quality Standards for designated uses, surface water criteria, analytical procedures and special standards and requirements. The proposed amendments to the Water Quality Standards are summarized below.

Section 9VAC25-260-10 (Designation of uses):

- Added reference to DEQ-authored technical support document that provides the technical basis for expanding the Deep Water use in Virginia's Chesapeake Bay mainstem and Mobjack Bay.

Section 9VAC25-260-140 (Criteria for surface water):

- Addition of aquatic life criteria for PFOA and PFOS.
- Amended language for Biotic Ligand Model (BLM) option for copper criteria (9VAC25-260-140.G).
- Corrected a Chemical Abstracts Service (CAS) number for tributyltin.
- Modified upstream boundary for Chickahominy River transition zone to indicate upstream terminus at Walker's Dam.

Section 9VAC25-260-185 (Criteria to protect designated uses from the impacts of nutrients and suspended sediment in the Chesapeake Bay and its tidal tributaries):

- Inserted a decimal place to the Migratory Fish Spawning and Nursery, Open Water, and Deep Water Bay DO criteria currently expressed as whole numbers.
- Amended implementation language in subsection D to allow for use of other DEQ-approved assessment methods.

Section 9VAC25-260-187 (Criteria for man-made lakes and reservoirs to protect aquatic life and recreational designated uses from the impacts of nutrients):

- Name change: Lake Pelham to Lake Culpeper.

Section 9VAC25-260-280 (Analytical procedures):

- Removed "as amended" in reference to documents incorporated by reference. This is required by the Virginia Code Commission's regulations.

Section 9VAC25-260-310 (Special standards and requirements):

- Added special DO criteria for tidal Chickahominy and Pocomoke-Oligohaline Rivers.

Section 9VAC25-260-370 (Classification column):

- Changed “DGIF” to “DWR” to reflect the name change of this state agency.

Section 9VAC25-260-390, Potomac River Basin (Potomac River Subbasin):

- Amended section 7g to replace “proposed impoundment” with “Germantown Lake” and tributaries.
- Amended to correct pH special standard in section 11 (Stockable trout waters Turkey Run). It was previously 9.6 and has been changed to 9.5.

Section 9VAC25-260-400, Potomac River Basin (Shenandoah River Subbasin):

- Amended PWS segment for Front Royal to accommodate relocated intake in section 2b. Modified language to accommodate relocation of raw water intake approximately 3,600 feet downriver.

Section 9VAC25-260-410, James River Basin (Lower):

- Added notation in special standards column of section 1 for tidal Chickahominy River DO special standard.

Section 9VAC25-260-450, Roanoke River Basin:

- Amended to clarify Stockable trout water in section 7b, Roanoke vs “South Roanoke”. Revised segment description to clarify the inclusion of South Fork Roanoke River, which was not addressed when originally adopted. Corrected upstream terminus to “confluence of Bottom and Goose creeks near the Floyd-Montgomery County line.”

Section 9VAC25-260-520, Chesapeake Bay, Atlantic Ocean and small coastal basins:

- Added notation in special standards column of section 1 for the Pocomoke River DO special standard.

Section 9VAC25-260-540, New River Basin:

- Amended section 2 to change “Big Wilson Creek” to “Wilson Creek” and moved to maintain alphabetic listing.

Documents Incorporated by Reference:

- .Boundary of the Deep Water Designated Use in Virginia's Chesapeake Bay Mainstem (VADEQ, 2025)

Issues

Identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary 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, include a specific statement to that effect.

The primary advantage to the public is that the updated water quality standards amendments are based on better scientific information to protect aquatic life and human health. The disadvantage is that criteria that become more stringent may result in increased costs to the regulated community. However, the goal is to set realistic, protective goals in water quality management and to maintain the most scientifically defensible criteria in the Water Quality Standards regulation. EPA has also provided guidance that these criteria are "approvable" under the federal Clean Water Act.

The advantage to the agency or the Commonwealth that will result from the adoption of these amendments will be more accurate and scientifically defensible permit limits, assessments and clean-up plans (TMDLs). These are discussed under the “Purpose” section where the goals of the proposal, the environmental benefits, and the problems the proposal is intended to solve are discussed.

The regulated community may find that some of the amendments pertinent to their operations provide greater flexibility and may be economically advantageous. Other amendments may require additional capital or operating costs by the regulated community to control their discharges, particularly where the numerical criteria are more stringent (see Economic Impact). In some instances, individual members of the regulated community may view some cases as disadvantageous.

There is no disadvantage to the agency or the Commonwealth that will result from the adoption of these amendments.

Requirements More Restrictive than Federal

Identify and describe any requirement of the regulatory change which is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

There are no requirements that exceed applicable federal requirements.

Agencies, Localities, and Other Entities Particularly Affected

Consistent with § 2.2-4007.04 of the Code of Virginia, identify any other state agencies, localities, or other entities particularly affected by the regulatory change. Other entities could include local partners such as tribal governments, school boards, community services boards, and similar regional organizations. "Particularly affected" are those that are likely to bear any identified disproportionate material impact which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected
No other state agencies are anticipated to be particularly affected by these regulations with the exception of those which operate facilities subject to VPDES permitting that may potentially be impacted by the proposed amendments as related to discharge permits. Staff do not anticipate this to impact many facilities.

Localities Particularly Affected
Localities which operate facilities subject to VPDES permitting may potentially be impacted by the proposed amendments as related to discharge permits.

Other Entities Particularly Affected
Entities which operate facilities subject to VPDES permitting may potentially be impacted by the proposed amendments as related to discharge permits.

For purposes of "Locality Particularly Affected" under the Board's statutes
No locality is anticipated to be particularly affected.

Economic Impact

Consistent with § 2.2-4007.04 of the Code of Virginia, identify all specific economic impacts (costs and/or benefits) anticipated to result from the regulatory change. When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Keep in mind that this is the proposed change versus the status quo.

Impact on State Agencies

For your agency: projected costs, savings, fees, or revenues resulting from the regulatory change, including: a) fund source / fund detail; b) delineation of one-time versus on-going expenditures; and c) whether any costs or revenue loss can be absorbed within existing resources.	There will be no additional costs to the state/agency. Existing water quality monitoring programs (and related funding sources) will continue to support the proposed changes.
For other state agencies: projected costs, savings, fees, or revenues resulting from the regulatory change, including a delineation of one-time versus on-going expenditures.	No other state agencies are anticipated to be particularly affected by these regulations with the exception of those which operate facilities subject to VPDES permitting. The proposed changes could have an economic impact on permittees if

	PFOS/PFOA or copper compounds are present in their effluent. Facilities that are found to discharge PFOS and PFOA contaminants at levels that exceed the proposed aquatic life criteria may incur costs. While the new criteria could lead to increased monitoring and treatment requirements and costs for facilities that discharge these substances, the costs cannot be quantified because of the variability of facilities across Virginia. As such, no immediate costs are quantified, though future impacts will depend on the results of ongoing monitoring and facility-specific discharges. Regarding the amendment that involves the optional use of the BLM for assessing copper toxicity in freshwater systems: In 2015, EPA estimated costs ranging from $443 to $1,772 (adjusted for inflation) per seasonal sampling event. Although the BLM requires more extensive data collection, it can lead to long-term cost savings by better characterizing copper toxicity, allowing for less stringent permit limits and lower treatment or monitoring costs. Since the BLM is already allowed in the regulation, the amendment only requires that approved procedures must be used, making the submittals to the agency more consistent and that BLM results should be used over hardness criteria. Thus, the amendment does not create any new costs.
For all agencies: Benefits the regulatory change is designed to produce.	The regulatory changes produce indirect benefits through protection of water quality and living resources of Virginia's waters for the designated uses of aquatic life, wildlife, recreation, public water supply, shellfish consumption, and fish consumption. A general benefit of the proposed amendments will be scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia. Allowing additional assessment methods and correcting river basin tables streamlines water quality evaluations, reduces the likelihood of unnecessary remediation, ensures that resources are allocated where they are most needed, and allows Virginia to realize the full benefits of its continuous water quality monitoring datasets in Chesapeake Bay since they cannot currently be used for water quality assessments.

Impact on Localities

If this analysis has been reported on the ORM Economic Impact form, indicate the tables (1a or 2) on which it was reported. Information provided on that form need not be repeated here.

Projected costs, savings, fees, or revenues resulting from the regulatory change.	The proposed changes to the Water Quality Standards (WQS) do not impose direct costs. No indirect costs are expected from amendments proposed that allow additional water quality assessment methods and to correct errors in the River Basin Tables. These changes are administrative in nature and serve to streamline

	evaluations and improve data accuracy. They do not introduce new regulatory burdens and are not anticipated to result in any direct or indirect costs to the agency or regulated entities. Also, no indirect costs are expected for proposed changes to the deep water designated uses or revising the DO criteria for the tidal Chickahominy River and Pocomoke River. These revised criteria account for naturally low oxygen levels in these systems, especially during warmer months, and may reduce regulatory burden by making criteria less stringent. Regarding the amendment that involves the optional use of the BLM for assessing copper toxicity in freshwater systems: In 2015, EPA estimated costs ranging from $443 to $1,772 (adjusted for inflation) per seasonal sampling event. Although the BLM requires more extensive data collection, it can lead to long-term cost savings by better characterizing copper toxicity, allowing for less stringent permit limits and lower treatment or monitoring costs. Importantly, the proposed amendment does not mandate BLM use; it simply clarifies its availability by facilities to use the method to determine their permit limits. Since the BLM is already allowed in the regulation, the amendment only requires that approved procedures must be used, making the submittals to the agency more consistent and that BLM results should be used over hardness criteria. Thus, the amendment does not create any new costs. Facilities that are found to discharge PFOS and PFOA contaminants at levels that exceed the proposed aquatic life criteria may incur costs. While the new criteria could lead to increased monitoring and treatment requirements and costs for facilities that discharge these substances, the costs cannot be quantified because of the variability of facilities across Virginia. As such, no immediate costs are quantified, though future impacts will depend on the results of ongoing monitoring and facility-specific discharges.
Benefits the regulatory change is designed to produce.	Local partners and their citizens will benefit from improved water quality that protects human health and aquatic life, resulting in healthier fisheries and safer, more reliable public water supplies. These improvements will also contribute to economic benefits from tourism and economic development and produce edible and marketable natural resources, such as by commercial and recreational fishing industries. Reducing exposure to PFOS and PFOA helps safeguard public health and aquatic life by reducing exposure to harmful contaminants and can lead to reduced healthcare costs and increased productivity. More accurate DO criteria and designated use boundaries help protect aquatic ecosystems, supporting biodiversity and enhancing the long-term sustainability of fisheries and tourism. Facilities may also benefit from cost reductions

	where criteria reflect natural conditions and are less stringent. Allowing additional assessment methods and correcting river basin tables streamlines water quality evaluations and reducing the likelihood of unnecessary remediation and ensures that resources are allocated where they are most needed. Allowing additional assessment methods will allow Virginia to realize the full benefits of its continuous water quality monitoring datasets in Chesapeake Bay since they cannot currently be used for water quality assessments. Permittees could benefit from using the BLM method where it results in more flexible permit conditions and cost savings.

Impact on Other Entities

If this analysis has been reported on the ORM Economic Impact form, indicate the tables (1a, 3, or 4) on which it was reported. Information provided on that form need not be repeated here.

Description of the individuals, businesses, or other entities likely to be affected by the regulatory change. If no other entities will be affected, include a specific statement to that effect.	The proposed changes could have an economic impact on VPDES permittees if PFOS/PFOA or copper compounds are present in their effluent.
Agency's best estimate of the number of such entities that will be affected. Include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that: a) is independently owned and operated, and; b) employs fewer than 500 full-time employees or has gross annual sales of less than $6 million.	146 permittees may be affected by the modified language for the copper BLM. These permittees currently have copper limits. Municipally-owned wastewater treatment plants comprise 36% of these permittees, while industrial facilities make up the rest. There are other permittees that currently do not have copper limits but they may be required to have them when their permits are renewed, if this amendment is adopted. Adding new aquatic life criteria for these new contaminants, PFOS and PFOA, requires permitted dischargers with these contaminants in their effluent to meet the criteria. This could lead to treatment or monitoring costs that cannot be quantified at this time. The Department estimates that 268 industrial dischargers may be subject to additional monitoring requirements due to the potential for manufacturing sources of PFAS.
All projected costs for affected individuals, businesses, or other entities resulting from the regulatory change. Be specific and include all costs including, but not limited to: a) projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the regulatory change; c) fees; d) purchases of equipment or services; and e) time required to comply with the requirements.	No administrative costs are projected nor are costs for real estate development or additional services.
Benefits the regulatory change is designed to produce.	The regulatory changes produce indirect benefits through protection of water quality and living resources of Virginia's waters for the designated uses of aquatic life, wildlife, recreation, public

	water supply, shellfish consumption, and fish consumption. A general benefit of the proposed amendments will be scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia.

Alternatives to Regulation

Describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

One alternative is to keep the current water quality standard regulation unchanged or to delay the triennial review. Since triennial review is required by law to occur every three years this alternative was rejected.
The most likely alternative that would be less costly or less intrusive for small businesses would be to not update the criteria for surface water in §9 VAC 25-260-140 to include the aquatic life criteria for PFOA and PFOS and the modification to language pertaining to the copper BLM. Those alternatives were not chosen because impacts specific to small businesses are not anticipated and the proposed amendments are based upon more recent scientific information and data that provide for improved protection of the designated uses for Virginia's surface waters. Comments submitted in response to the NOIRA were considered, and a Regulatory Advisory Panel (RAP) was established to assist the Department in developing the proposed amendments to the Water Quality Standards and to identify any less burdensome or intrusive alternatives. The proposed amendments are necessary to achieve the purpose of the regulatory change.

If this analysis has been reported on the ORM Economic Impact form, indicate the tables on which it was reported. Information provided on that form need not be repeated here.

Regulatory Flexibility Analysis

Consistent with § 2.2-4007.1 B of the Code of Virginia, describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

Water Quality Standards do not establish compliance or reporting requirements. The proposed changes in the Water Quality Standards Regulation are implemented through established Department programs, including the VPDES permitting program, the water quality monitoring and assessment programs, and the TMDL program. These programs have the flexibility to implement the existing and proposed amendments to the Water Quality Standards to provide for flexibility in regulatory recordkeeping and water quality monitoring efforts. Economic estimates of the same are provided above.

If this analysis has been reported on the ORM Economic Impact form, indicate the tables on which it was reported. Information provided on that form need not be repeated here.

Periodic Review and Small Business Impact Review Report of Findings

If you are using this form to report the result of a periodic review/small business impact review that is being conducted as part of this regulatory action, and was announced during the NOIRA stage, indicate whether the regulatory change meets the criteria set out in EO 19 and the ORM procedures, e.g., is necessary for the protection of public health, safety, and welfare; minimizes the economic impact on small businesses consistent with the stated objectives of applicable law; and is clearly written and easily understandable.

In addition, as required by § 2.2-4007.1 E and F of the Code of Virginia, discuss the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation; (3) the complexity of the regulation; (4) the extent to the which the regulation overlaps, duplicates, or

conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation. Also, discuss why the agency's decision, consistent with applicable law, will minimize the economic impact of regulations on small businesses.

This regulatory action is necessary for the protection of public health and for the protection of the Commonwealth's surface waters and aquatic life. The Water Quality Standards regulation forms the basis upon which effluent discharge limits are set in VPDES permits and upon which it is determined whether or not waters are attaining applicable designated uses. Comment received during the Notice of Intended Regulatory Action (NOIRA) ranged from agreement that the proposed amendments are necessary to protect designated uses (i.e. PFOS and PFOA aquatic life criteria) to suggestions for changes to certain sections to address mixing zone determinations, narrative criteria implementation, public water supply determinations, and the need to include certain pollutant parameters in the regulation (i.e. polyfluoroalkyl substances, algal toxins). Federal and state mandates in the federal Clean Water Act at 303(c), federal regulations at 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. This rulemaking is needed because the last triennial review was completed in August 2022, and new scientific information is available to update the water quality standards. Potential economic impacts would be the result of possibly more stringent VPDES permit limits. Impacts specific to small businesses are not anticipated.

Public Comment

Summarize all comments received during the public comment period following the publication of the previous stage, and provide the agency's response. Include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency. If no comment was received, enter a specific statement to that effect.

See Attachment 1.

Public Participation

Indicate how the public should contact the agency to submit comments on this regulation, and whether a public hearing will be held, by completing the text below.

In addition to any other comments, the Board is seeking comments on the costs and benefits of the proposal and the potential impacts of this regulatory proposal. Also, the Board is 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 by mail or email to Jeanette Ruiz, VA Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218; Phone: (804) 494-9636; Email: Jeanette.Ruiz@deq.virginia.gov. Comments may also be submitted through the Public Forum feature of the Virginia Regulatory Town Hall (http://www.townhall.virginia.gov). Written comments must include the name and address of the commenter. In order to be considered, comments must be received by 11:59 pm on the last day of the public comment period.

A public hearing will be held following the publication of this stage and notice of the hearing will be posted on the Virginia Regulatory Town Hall (http://www.townhall.virginia.gov) and on the Commonwealth Calendar (https://commonwealthcalendar.virginia.gov/). Both oral and written comments may be submitted at that time.

A formal hearing will be held on a date and time and at a place to be determined, if a request for a formal hearing is received by the contact person listed above within 30 days of publication of the notice of public comment period in the Virginia Register of Regulations.

Detail of Changes

List all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. For example, describe the intent of the language and

the expected impact. Describe the difference between existing requirement(s) and/or agency practice(s) and what is being proposed in this regulatory change. Use all tables that apply, but delete inapplicable tables.

If an existing VAC Chapter(s) is being amended or repealed, use Table 1 to describe the changes between the existing VAC Chapter(s) and the proposed regulation. If the existing VAC Chapter(s) or sections are being repealed and replaced, ensure Table 1 clearly shows both the current number and the new number for each repealed section and the replacement section.

Table 1: Changes to Existing VAC Chapter(s)

Current chapter-section number	New chapter-section number, if applicable	Current requirements in VAC	Change, intent, rationale, and likely impact of new requirements
9VAC25-260-10. Designation of uses.		Currently Item 4 contains a reference to an EPA (2004) document that provides the technical rationale for the designation of the Deep Water use in the tidal waters of the Chesapeake Bay. It delineates the Deep Water use in only a small portion of Virginia's mainstem of the Chesapeake Bay.	Inserted an additional reference to a document authored by DEQ that provides the technical basis for an expanded Deep Water use boundary in Virginia's mainstem of the Chesapeake Bay and a portion of Mobjack Bay. This change expands the area currently designated for the Deep Water use by 84%. The impact of this change is that less stringent dissolved oxygen criteria will be appropriately applied to the areas newly included in this expansion. The impact to dischargers is not known.
9VAC25-260-140. Criteria for surface water.		Currently no freshwater aquatic life criteria for PFOA and PFOS are included in the regulation. Language pertaining to BLM does not make it clear that BLM-based copper criteria supersede hardness-based criteria and that a BLM dataset should be collected with a DEQ-approved study plan. CAS number for tributyltin is E1790678. Upstream boundary for Chickahominy River transition zone is at Holly Landing.	Addition of EPA's aquatic life criteria for PFOA and PFOS, which are designed to safeguard aquatic life by reducing exposure to these contaminants. This change could have an economic impact on permittees if these compounds are present in their effluent, as described in the Economic Impact section above. Amended the copper BLM language to clarify that BLM-based criteria supersede hardness-based criteria and that a BLM dataset should be collected with a DEQ-approved study plan. This change could have an economic impact on permittees if copper is present in their effluent, as described in the Economic Impact section above. Corrected CAS number for tributyltin to E1790679. No impacts are expected. Upstream boundary for Chickahominy River transition zone changed to Walker's Dam. The existing upstream terminus of tidal waters at Holly Landing is upriver from Walker's Dam. Tidal action does not occur above the dam. This change enables a more accurate assessment of the tidal Chickahominy River segment (CHOH) and ensures that data representing tidal waters are evaluated for this Chesapeake Bay segment. No impacts are expected.

9VAC25-260-280. Analytical procedures.		Includes “as amended” language that refers to documents incorporated by reference.	Removed “as amended” in reference to documents incorporated by reference to comply with the Virginia Code Commission’s regulations at 1VAC7-10-140 C. No impacts are expected.
9VAC25-260-185. Criteria to protect designated uses from the impacts of nutrients and suspended sediment in the Chesapeake Bay and its tidal tributaries.		Currently 6 of 11 dissolved oxygen criteria are expressed as whole numbers. Implementation language states that the cumulative frequency distribution method shall be used to assess Chesapeake Bay dissolved oxygen criteria	A tenths’ placeholder has been added to five of the whole-numbered criteria to provide greater consistency within the regulation for dissolved oxygen criteria within the regulation and to alleviate confusion in implementation programs. The impact is that these criteria will be slightly more stringent when used in assessment. Amended implementation language in subsection D to allow for use of other DEQ-approved assessment methods. The impact is that DEQ will conduct more complete assessments of the dissolved oxygen criteria.
9VAC25-260-187. Lake and Reservoir criteria.		Currently it refers to Lake Pelham.	Updated name of Lake Pelham to Lake Culpeper following the renaming of the lake in 2022. No impacts are expected.
9VAC25-260-310. Special standards and requirements.		Currently there is no special DO criteria for the tidal Chickahominy and Pocomoke rivers.	Added special DO criteria for tidal Chickahominy and Pocomoke-Oligohaline Rivers. The impact is that less stringent criteria will apply to these waters, potentially resulting in them being assessed as meeting water quality standards.
9VAC25-260-370. Classification column.		Currently references the formerly named agency “Department of Game and Inland Fisheries” and “DGIF”	Amended to reference “Department of Wildlife Resources” and “DWR” in response to the agency’s name being revised. No impacts expected.
9VAC25-260-390. Potomac River Basin (Potomac River Subbasin).		Current language describing Section 7g refers to “The proposed impounded waters of Licking Run above the multiple purpose impoundment structure in Licking Run near Midland (Fauquier County) upstream to points 5 miles above the proposed impoundment. Typographic error in Section 11 special standards column for Turkey Run Stockable Trout Waters segment. Upper boundary of pH reads “9.6”.	Proposed impoundment was constructed and called Germantown Lake. Amended language removes reference to “proposed impoundment”. No impacts expected. Amended to correct pH in section 11 (Stockable trout waters Turkey Run). Changed upper pH to 9.5. No impacts expected.
9VAC25-260-400. Potomac River Basin (Shenandoah River Subbasin).		Current language for Section 2b describes Front Royal's PWS intake at the State Route 619 bridge in Front Royal.	PWS intake was moved approximately 3600 feet downriver. Amended language for PWS segment in Front Royal to accommodate relocated intake. No impacts expected.
9VAC25-260-410. James River Basin (Lower).		Currently there is no notation in Section 1 special standards column to denote the addition of proposed Chickahominy River	Amended to add “kk” notation for dissolved oxygen special standard. This special standard is applicable to the tidal Chickahominy River which is in section 9VAC25-260-410. The special dissolved oxygen criterion is

		dissolved oxygen special standard (kk) in that section.	recommended by EPA for tidal waters that are influenced by wetlands, which DEQ staff have determined to be the case for this waterbody. No impacts expected.
9VAC25-260-450. Roanoke River Basin.		Current segment description reads “Roanoke River from the Spring Hollow Reservoir intake to the Floyd-Montgomery County line.”	Amended to clarify delineation of stockable trout waters in section 7b and greater specificity to the upstream terminus. The Roanoke River is formed by the North and South Fork Roanoke rivers a short distance upriver from the Spring Hollow Reservoir intake. (“Roanoke” vs “South Roanoke”) No impacts expected.
9VAC25-260-520. Chesapeake Bay, Atlantic Ocean and small coastal basins.		Currently no notation in Section 2 special standards column to denote the addition of proposed Pocomoke River dissolved oxygen special standard (ll) in that section.	Amended to add “ll” notation for dissolved oxygen special standard. This special standard is applicable to the tidal Pocomoke River which is in section 9VAC25-260-520. The special dissolved oxygen criterion is recommended by EPA for tidal waters that are influenced by wetlands, which DEQ staff have determined to be the case for this waterbody. This change will result in Virginia’s portion of this waterbody being assessed against the same criterion that Maryland adopted for its portion. No impacts expected.
9VAC25-260-540, New River Basin.		Natural Trout Waters in Section 2 lists 3 segments of Big Wilson Creek as natural trout waters.	“Big Wilson Creek” is misnamed. Amended to change “Big Wilson Creek” to “Wilson Creek” and moved to maintain alphabetic listing. Deleted the word “Big” from other trout water descriptions using “Big Wilson Creek” as a demarcation reference. No impacts expected.
Documents Incorporated by Reference		Current documents incorporated by reference remain.	Boundary of the Deep Water Designated Use in Virginia's Chesapeake Bay Mainstem (VADEQ, October 9, 2025)

Family Impact

In accordance with § 2.2-606 of the Code of Virginia, please 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.

It is not anticipated that this regulation will have a direct impact on the institution of the family and family stability.

ATTACHMENT 1

Summary of Comments from the Triennial Review
Notice of Intended Regulatory Action
Comment period April 21, 2025 – May 21, 2025

Commenter	Comments – General/Miscellaneous	Agency Response
James River Association (JRA)	They state that they have previously raised concerns about turbidity issues related to permitted activities, including land development upstream of restoration projects and freshwater mussel habitat. The State Water Control Board previously directed DEQ to propose numeric turbidity criteria, but progress has stalled. They stated that now is the time to move forward and include turbidity standards in the review.	Regarding turbidity controls, the Board directed DEQ to develop numeric criteria for turbidity in 2019. DEQ has initiated this process but has not yet developed candidate criteria. However, DEQ has updated the Construction Stormwater General Permit with new turbidity requirements. Turbidity criteria, or a component thereof, will be handled in its own rulemaking process.
Chesapeake Bay Foundation (CBF)	Virginia currently has narrative water quality standards that encompass turbidity but lack a quantitative standard to assess ambient turbidity levels. Lack of a quantitative target has had clear negative implications in the past and limits the state's ability to address turbidity-related water quality concerns, as evidenced during the Atlantic Coast Pipeline project. Analysis of DEQ probabilistic monitoring data sets on an ecoregion basis indicated a significant relationship between elevated dry weather turbidity and multiple habitat scoring metrics in specific ecoregions (i.e., Blue Ridge, Mountain). They urge DEQ to evaluate these relationships to develop ambient water quality standards for relevant ecoregions.	See above response.
Wild Virginia (Wild VA)	They stated that there is no excuse for continued delay in adopting numeric criteria for turbidity and/or solids. They stated the Mountain Valley Pipeline (MVP) has caused serious problems in dozens of waterbodies, but DEQ has refused to acknowledge WQS violations due to resistance to the use of narrative criteria, or develop numeric criteria, to control solids or turbidity.	See above response.
Environmental Protection Agency, Region 3 (EPA)	They recommended that, in addition to the background documents, rationale documents be made available during the public comment period.	The comment is noted.
Hampton Roads Planning District Commission	They stated that the triennial review will be valuable to Hampton Roads localities that are affected by local Total Maximum Daily Loads (TMDLs) and to those who comply with the Chesapeake Bay TMDL.	The comment is noted.
Virginia Association of Municipal Wastewater Administrators (VAMWA)	They stated their strong support for protection of Public Water Supplies (PWS) and wish to see the regulation more effective and efficient in doing so by fully implementing VDH's policy that PWS intakes enjoy protection not only at the point of the intake but generally to a point five miles above the intake. They mentioned that the regulation is currently vague or ambiguous due to expressing PWS intake protection in various and inconsistent ways. They believe it would be better to provide clarity on beneficial use protection in the regulation, protecting all existing PWS uses by covering to a point five miles above the	Limiting the PWS designation to only waters within 5 miles upstream of a raw water intake would require the removal of the PWS use from waters that are currently designated as PWS that are beyond this extent. Under federal code, states cannot remove uses that existed on or after November 28, 1975. States also cannot remove designated uses that are attained/attainable.

	intake consistent with VDH's drinking water protection policy, while maintaining and providing assimilative capacity in waterbodies at points more than five miles upstream.	
Virginia Manufacturers Association (VMA)	The commenter noted that its members are affected by Virginia's WQS as implemented through Virginia Pollutant Discharge Elimination System (VPDES) permitting actions and Total Maximum Daily Loads (TMDLs). They stated that there are a number of water quality-related issues in play at the federal level and they look forward to participating in Virginia's efforts to integrate them into Virginia's WQS regulations.	The comments are noted.
Commenter	**Comments – Section 20: Narrative Criteria**	**Agency Response**
Wild Virginia (Wild VA)	They stated that DEQ fails to base regulatory decisions on important parts of the narrative criteria. Wild VA and other groups included extensive comments during the last triennial review process explaining deficiencies in DEQ's approach and proposing specific amendment language to address those deficiencies. They resubmitted their comment letter dated March 18, 2022. In that letter, they recommended that the State Water Control Board (Board) should adopt guidelines for the implementation of the state's narrative water quality criteria as part of the water quality standards regulations. They asserted that it is necessary and appropriate for the state to incorporate policies or guidelines into the regulations to ensure the narrative criteria are applied consistently. The approach they proposed would be consistent with other implementation in the standards such as the policy for mixing zones. They also provided DEQ's use of the Stream Condition Index as applied through the biological monitoring program for assessment purposes. They stated that the fact that applying regulations such as narrative criteria is difficult is not a valid or acceptable excuse for failing to do so.	DEQ water quality programs address narrative water quality criteria by using translators for assessing impacts to designated uses for which numeric criteria do not exist in the WQS. Among these translators are: biological indices, probabilistic weight-of-evidence assessments, fish tissue screening values, fish consumption advisories, swimming advisories, beach closures, shellfish harvesting closures, Harmful Algal Bloom (HAB) swimming advisories, and others. Also, public-generated reports and photos are frequently the basis of follow-up monitoring or compliance actions. Program-specific implementation guidance manuals are revised periodically through the public participation procedures stipulated by § 2.2-4002.1 of the Administrative Process Act and there are more benefits to keeping implementation policies outside of the water quality standards regulation than there are downsides.
Commenter	**Comments – Section 20: Mixing Zones**	
James River Association (JRA)	They raised concerns related to mixing zones, including with the 2015 draft VPDES permit for Bremo Power Station, which proposed a nearly 10-mile mixing zone in the middle James River, and with the 2024 draft VPDES permit for AdvanSix Resins and Chemicals, which proposed the continued use of a mixing zone which vastly exceeds the footprint of the receiving watercourse. They urge DEQ to review the extent of mixing zone use in the state, gather data and evaluate the impact of existing mixing zones individually as well as areas where they overlap, and consider regulatory updates that would reduce the commonwealth's reliance on mixing zones as a substitute for other pollution controls.	DEQ acknowledges the concerns raised regarding mixing zones.. Overlapping mixing zones and temperature criteria are considered by modeling staff when reviewing regulatory mixing zones. No regulatory changes are currently proposed.
Chesapeake Bay Foundation (CBF)	They stated there is a need for greater clarity around the limited circumstances under which mixing zones may be appropriate and the requirements for permittees to provide DEQ with sufficient information to carefully consider whether they are appropriate. Mixing zones for ammonia are in use that allow for	See above response.

	mussel lethality within the mixing zone and they are interested in understanding how mixing zone use is considered by DEQ related to updated ammonia water quality criteria. They would appreciate DEQ providing details about the number and extent of such mixing zones during the RAP process.	
Commenter	**Comments – Section 140: Criteria**	**Agency Response**
James River Association (JRA)	They appreciate the inclusion of EPA's 2024 aquatic life criteria for PFOA and PFOS. They urge the Board and DEQ to apply existing narrative water quality standards to cover PFAS chemicals and, further, to develop numeric standards for PFAS as part of this review.	EPA has developed draft nationally recommended water quality criteria for additional PFAS substances protective of human health but has not yet finalized these recommendations. DEQ staff will consider their adoption when they have been finalized. DEQ will continue to use VDH fish consumption advisories for PFOS in assessment determinations.
Chesapeake Bay Foundation (CBF)	They stated their appreciation for including the promulgation of PFOA and PFOS aquatic life criteria in this rulemaking. They suggested that DEQ consider adoption of water quality criteria for perfluorobutane sulfonic acid ("PFBS") recently developed by EPA as well as updating WQS regulations to assess other ways to protect public health and designated uses of state waters against the impacts of other per- and polyfluoroalkyl substances ("PFAS"). They expressed some concern regarding HABs and/or cyanotoxins negatively impacting the recreational use of some surface waters. They have concerns over DEQ assessment guidance that connects Virginia Department of Health (VDH) advisories and impairment status. Given the very limited nature of VDH's monitoring sites, they would appreciate DEQ providing a summary of such advisories and the corresponding impairment decisions. They stated it would be helpful if the DEQ could identify any TMDLs that resulted from advisories and a summary of the monitoring programs that have supported these initiatives.	PFAS: See response above HABs: In addition to responding to reports of potential HAB events by collecting samples for toxin analysis, DEQ added toxin samples to the routine monthly monitoring in Lake Anna and Smith Mountain Lake in 2025. DEQ plans to add toxin analyses to additional routine lake monitoring runs across the state beginning 2026. To date in 2025, HAB toxins have not been measured at levels of concern at any samples, and almost all sample results for toxins have been below lab detection levels. While toxins have not been observed at levels of concern in DEQ's sampling, this does not mean that algal blooms will no longer occur in the state. Regarding HAB studies: In 2022, the General Assembly appropriated $3.5 million to DEQ to conduct studies of HABs occurring in Lake Anna and the Shenandoah River basin. These studies have been carried out in partnership with VDH, the United States Geological Survey (USGS), the Interstate Commission on the Potomac River Basin (ICPRB), George Mason University, and Virginia Commonwealth University. As part of Phase I of the study, DEQ and USGS collected monitoring data in Lake Anna, beginning in 2023 and concluding in December 2024. The data collected is currently being analyzed to identify primary drivers and possible sources of HAB occurrences. This analysis will be

		used during Phase II of the project, which entails development of an implementation plan to identify strategies to mitigate and remediate the occurrence of HABs. To assist in identifying strategies, a computer model is currently being developed that will be used to understand the existing pollutant loads and needed reductions to meet water quality goals. The implementation plan development process will include public participation comprised of stakeholder meetings. DEQ anticipates initiating Phase II in Spring/Summer 2026.
Environmental Protection Agency, Region 3 (EPA)	They stated that, in addition to the PFOA and PFOS freshwater criteria, EPA also published benchmarks that are derived to protect aquatic life from short-term exposures to eight individual per- or polyfluoroalkyl (PFAS) in freshwaters (PFBA, PFHxA, PFNA, PFDA, PFBS, PFHxS, 8:2 FTUCA and 7:3 FTCA), as well as PFOA and PFOS in saltwater environments. They suggested that Virginia could consider these benchmarks in implementing its water quality protection programs. They also encourage DEQ to consider statewide application of: BLM-derived copper criteria (revised 2007), freshwater selenium criteria (revised 2021), nutrient criteria for lakes/reservoirs (revised 2021), ecoregional nutrient criteria for rivers/streams. They suggested that DEQ consider EPA recommendations for cyanotoxins and as well as their draft human health criteria for PFOA, PFOS, and PFBS during the rulemaking.	PFAS: DEQ staff will consider the adoption of additional PFAS criteria when the criteria recommendations have been finalized. Copper BLM: Under this triennial review, DEQ is proposing a process to enable the use of the copper BLM wherever sufficient data exists. The hardness-based criteria will be used by default in cases where there are not enough data to use the BLM to calculate freshwater copper criteria. Selenium: In 2025, the Board approved the adoption of the freshwater selenium criterion for four waterbodies in the Tug Fork watershed. DEQ will be using the four waterbodies in the Tug Fork watershed as a pilot study that will inform the agency on whether the criterion should be adopted statewide. Nutrient criteria: Virginia relies on implementation measures from existing programs that include the Chesapeake Bay Watershed Implementation Plan, lakes/reservoirs nutrient criteria, and local TMDLs. Actions on the ground are resulting in significant improvement to nutrient control and reduction. Cyanotoxins: States have the discretion to adopt the recommended thresholds as swimming advisory levels or as water quality criteria. Since 2021, Virginia has used these thresholds, in addition to thresholds for other cyanotoxins, as the basis for swimming advisories. DEQ

		considers Virginia Department of Health (VDH) swimming advisories when assessing the recreation use. Water quality assessments of the recreation use regarding HABs should rest on swimming advisories issued by VDH.
Southern Environmental Law Center, Allegheny-Blue Ridge Alliance, don't spread on me, Potomac Riverkeeper Network, Rockbridge Conservation, Sierra Club Virginia Chapter, Totier Creek Watershed Association, Virginia Conservation Network, and Waterkeepers Chesapeake (SELC, et al)	The commenter provided extensive information related to the toxicity of PFAS compounds and the ubiquitous nature of their presence in the environment and the hazards they represent to aquatic life and human health. The comments stated that water quality standards must protect public health and the designated uses of state waters and that the Board and DEQ should apply existing narrative water quality standards to cover PFAS. They also stated that the Board and DEQ should assess and adopt numeric water quality standards for PFAS. At a minimum, the Board and DEQ should adopt aquatic life criteria and human health criteria for PFOA and PFOS that are at least as stringent as the EPA recommendations. The Board and DEQ should also assess the development of criteria for other PFAS based on the recommended EPA benchmarks and other available data. In developing and adopting any PFAS aquatic life or human health criteria, the Board and DEQ should consider whether more stringent criteria are warranted given that the EPA recommendations do not account for potential mixture effects of multiple PFAS.	See response above
Commenter	**Comments – Section 160: Shellfish Bacteria Criteria**	
IDEXX	They recommended removing reference to "…MF (membrane filtration using mTEC culture media)" and replace the units "CFU" with "organisms" in this Section of the WQS regulation. They stated that removal of CFU allows the use of methods that report in different units accepted by US EPA for compliance with Clean Water Act testing. Removing CFU and stating 'organisms' will be less confusing to utilities and laboratories as they decide on using either a CFU or MPN reporting test method. Options on the market other then the mTEC method can provide better accuracy, ease of use, quicker results and ability to act upon those results faster.	The Virginia Department of Health -Division of Shellfish Safety (VDH-DSS) implements the shellfish bacteria criteria to determine shellfish growing areas and closures. VDH-DSS has requested that the current language not be revised.
Commenter	**Comments – Section 185: Chesapeake Bay Criteria**	
Environmental Protection Agency, Region 3 (EPA)	They recommended that the dissolved oxygen criteria for all Bay use designations in 9VAC25-260-185 be expressed as 2 significant digits. They recommended that VADEQ engage with the Chesapeake Bay Partnership where potential revisions to WQS regulations related to the Chesapeake Bay are being considered to ensure that any such revisions are consistent with Partnership agreements.	The comments are noted. DEQ has been in communication with the Chesapeake Bay Partnership regarding the development of these amendments. With the exception of the dissolved oxygen criteria for the Deep Channel use, all other dissolved oxygen criteria in section 9VAC25-260-185.A will be expressed as having 2 significant digits.