

Office of Regulatory Management
Economic Review Form

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC25-260
VAC Chapter title(s)	Water Quality Standards
Action title	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	August 26, 2022

Cost Benefit Analysis

Table 1a must be completed for all actions. Tables 1b and 1c must be completed for actions (or portions thereof) where the agency is exercising discretion, including those where some of the changes are mandated by state or federal law or regulation. Tables 1b and 1c are not needed if **all** changes are mandated, and the agency is not exercising any discretion. In that case, enter a statement to that effect.

- (1) Direct Costs & Benefits: Identify all specific, direct economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (A direct impact is one that affects entities regulated by the agency and which directly results from the regulatory change itself, without any intervening steps or effects. For example, the direct impact of a regulatory fee change is the change in costs for these regulated entities.) 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. One bullet has been provided, add additional bullets as needed.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of total (overall) direct costs described above.
 - (b) Enter estimated dollar value of total (overall) direct benefits described above.
 - (c) Enter the present value of the direct costs based on the worksheet.
 - (d) Enter the present value of the direct benefits based on the worksheet.
- (3) Benefits-Costs Ratio: Calculate d divided by c OR enter it from the worksheet.
- (4) Net Benefit: Calculate d minus c OR enter it from the worksheet.
- (5) Indirect Costs & Benefits: Identify all specific, indirect economic impacts (costs and/or benefits), anticipated to result from the regulatory change. (An indirect impact is one that results from responses to the regulatory change, but which are not directly required by the regulation. Indirect impacts of a regulatory fee change on regulated entities could include a change in the prices they charge, changes in their operating procedures or employment levels, or decisions to enter or exit the regulated profession or market. Indirect impacts also include responses by other entities that have close economic ties to the regulated

entities, such as suppliers or partners.) If there are no indirect costs or benefits, include a specific statement to that effect.

- (6) Information Sources: Describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (7) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Table 1a: Costs and Benefits of the Proposed Changes (Primary Option)

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • Describe first proposed impactful change here. The State Water Control Board (Board) proposes to amend 9 VAC 25-260 Water Quality Standards (regulation) to update numerical and narrative criteria, use designations, and other policies based on current scientific information. The amendments were developed as part of a triennial review of the regulation, which is mandated by federal regulation and state law. The State Water Control Law (<i>Code of Virginia</i>, §62.1-44.15(3a)) requires the Board to establish standards of quality, and also modify, amend or cancel any such standards or policies; that section mirrors 40 CFR 131 in requiring that the Board conduct a triennial review of water quality standards, including holding public hearings. <p>The proposed changes include: (i) adding freshwater aluminum criteria; (ii) updating 20 human health criteria for 10 parameters of water quality; (iii) a change in the acreage for Submerged Aquatic Vegetation and Water Clarity for five Chesapeake Bay segments; (iv) applying lake nutrient criteria and a public water supply designation to Lake Mooney; (v) deleting a special standard for ammonia concentrations in freshwater tidal tributaries to the Potomac River, (vi) adding a special standard that would limit the quantity of the filamentous algae in certain sections of the Shenandoah river, and (vii) modifying some trout waters designations and public water supply designations, and adjusting the temporal application of temperature criteria for waters stocked with trout by the Virginia Department of Wildlife Resources in the winter.</p> <p>Direct Costs: There are no anticipated direct economic costs resulting from the regulatory change.</p> <p>Direct Benefits: There are no direct economic benefits.</p>
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(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) N/A	(c) N/A	
Direct Benefits	(b) N/A	(d) N/A	
(3) Benefits-Costs Ratio	N/A	(4) Net Benefit	N/A
(5) Indirect Costs & Benefits	<p>Indirect Costs – Water quality criteria that become more stringent may result in increased costs to the regulated community. The criteria are used to calculate permit limits under the Virginia Pollutant Discharge Elimination System (VPDES) regulation. Current permit holders as well as future permittees who are assessed for a new permit may face more stringent effluent limits or be subject to monitoring requirements, or may face higher indirect costs by having to process or treat their effluents to meet the new criteria.</p> <p>Indirect Benefits - The amendments broadly benefit the public by ensuring that the numerical toxics criteria that protect aquatic life and human health are updated based on better scientific information. This includes cleaner water, more abundant and healthier fisheries, and more reliable public water supplies, and contributes to economic benefits for tourism, economic development, and commercial and recreational fishing industries. The accurate classification of water bodies further ensures that public water sources for household consumption, water bodies used for recreational purposes, and aquatic life uses are correctly assessed and protected for such use. The Commonwealth would benefit from more accurate and scientifically defensible permit limits, assessments and clean-up plans (TMDLs), or if there are legal proceedings brought either by the regulated community or by conservation groups.</p>		
(6) Information Sources	<p>Virginia Department of Planning and Budget Economic Impact Analysis - November 19, 2021 Discussions with Regulatory Advisory Panel Comments Submitted on Virginia’s Proposed Triennial Review Rulemaking to Adopt New, Update or Cancel Existing Water Quality Standards (9VAC 25 – 260) dated March 18, 2022.</p>		
(7) Optional			

Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)

This table addresses current requirements and the implications of not making any changes. In other words, describe the costs and benefits of maintaining the current regulatory requirements as is.

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • Describe the current requirement associated with the first proposed impactful change described in Table 1a here. If the current regulatory requirements are maintained, the regulation would contain outdated criteria and water quality goals no longer representative of current science and not reflective of the information gathered through the regulatory advisory panel participatory process. The affected elements are listed in Table 1a. <p>Direct Costs: There are no anticipated direct economic costs with maintaining the current requirements.</p> <p>Direct Benefits: There are no direct economic benefits with maintaining the current requirements.</p>		
<p>(2) Quantitative Factors</p>	<p>Estimated Dollar Amount</p>	<p>Present Value</p>	
<p>Direct Costs</p>	<p>(a) N/A</p>	<p>(c) N/A</p>	
<p>Direct Benefits</p>	<p>(b) N/A</p>	<p>(d) N/A</p>	
<p>(3) Benefits-Costs Ratio</p>	<p>N/A</p>	<p>(4) Net Benefit</p>	<p>N/A</p>
<p>(5) Indirect Costs & Benefits</p>	<p>Indirect Costs – Continued loss of income related to the recreational use of the above described river segments due to excessive nuisance algae growth. Also, incorrect classification of certain waters (such as trout waters) could lead to inappropriate identification of impaired waters and possibly unnecessary TMDL development. There may also be increased human health risk due to inaccurate risk assessment assumptions utilized to calculate criteria for the protection of human health.</p> <p>Indirect Benefits - No indirect benefit of maintaining the status quo have been identified.</p>		

(6) Information Sources	Virginia Department of Planning and Budget Economic Impact Analysis - November 19, 2021 Discussions with Regulatory Advisory Panel Comments Submitted on Virginia’s Proposed Triennial Review Rulemaking to Adopt New, Update or Cancel Existing Water Quality Standards (9VAC 25 – 260) dated March 18, 2022.
(7) Optional	

Table 1c: Costs and Benefits under an Alternative Approach

This table addresses an alternative approach to accomplishing the objectives with different requirements. These alternative approaches may include the use of reasonably available alternatives in lieu of regulation, or information disclosure requirements or performance standards instead of regulatory mandates.

(1) Direct Costs & Benefits	<ul style="list-style-type: none"> • Describe first alternative proposed impactful change here. Comments submitted during the NOIRA and NOPC comment periods as well as discussions during the Regulatory Advisory Panel meetings were considered. No other reasonably available alternatives in lieu of these regulatory amendments were identified. <p>Direct Costs: N/A</p> <p>Direct Benefits: N/A</p> <ul style="list-style-type: none"> • 		
(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) N/A	(c) N/A	
Direct Benefits	(b) N/A	(d) N/A	
(3) Benefits-Costs Ratio		(4) Net Benefit	
(5) Indirect Costs & Benefits	N/A		
(6) Information Sources	N/A		

(7) Optional	N/A
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Impact on Local Partners

- (1) Describe the direct costs and benefits (as defined on page 1) for local partners in terms of real monetary costs and FTEs. Local partners include local or tribal governments, school divisions, or other local or regional authorities, boards, or commissions. If local partners are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of total (overall) direct costs described above.
 - (b) Enter estimated dollar value of total (overall) direct benefits described above.
- (3) Indirect Costs & Benefits: Describe any indirect benefits and costs (as defined on page 1) for local partners that are associated with all significant changes. If there are no indirect costs or benefits, include a specific statement to that effect.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why they are not.
- (5) Assistance: Identify the amount and source of assistance provided for compliance in both funding and training or other technical implementation assistance.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 2: Impact on Local Partners

(1) Direct Costs & Benefits	Some localities that operate wastewater treatment plants may be affected by the proposed changes to the Table of Parameters or the Special Standards section. While a commenter expressed cost concerns during the comment period associated with proposed regulations, no comments were raised or reiterated to the State Water Control Board with the final regulatory amendments. A general benefit of the proposed amendments will be scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) N/A
Direct Benefits	(b) N/A

(3) Indirect Costs & Benefits	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. This may result in cleaner water, more abundant and healthier fisheries, and more reliable public water supplies, and may contribute to economic benefits, for example with tourism, economic development, and commercial and recreational fishing industries.
(4) Information Sources	Virginia Department of Planning and Budget Economic Impact Analysis - November 19, 2021 Discussions with Regulatory Advisory Panel
(5) Assistance	
(6) Optional	

Economic Impacts on Families

- (1) Describe the direct costs and benefits (as defined on page 1) to a typical family of three (average family size in Virginia according to the U. S. Census) arising from any proposed regulatory changes that would affect the costs of food, energy, housing, transportation, healthcare, and education. If families are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe any indirect costs and benefits (as defined on page 1) to a typical family of three that are most likely to result from the proposed changes.
- (4) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (5) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 3: Impact on Families

(1) Direct Costs & Benefits	It is not anticipated that this regulation will have a direct impact on the institution of the family and family stability.
(2) Quantitative Factors	Estimated Dollar Amount

Direct Costs	(a) N/A
Direct Benefits	(b) N/A
(3) Indirect Costs & Benefits	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. This may result in cleaner water, more abundant and healthier fisheries, and more reliable public water supplies, and may contribute to economic benefits, for example with tourism, economic development, and commercial and recreational fishing industries.
(4) Information Sources	Final Regulation Agency Background Document (TH-03)
(5) Optional	

Impacts on Small Businesses

- (1) Describe the direct costs and benefits (as defined on page 1) for small businesses. For purposes of this analysis, “small business” means the same as that term is defined in § 2.2-4007.1. If small businesses are not affected, include a specific statement to that effect and a brief explanation of the rationale.
- (2) Quantitative Factors:
 - (a) Enter estimated dollar value of direct costs.
 - (b) Enter estimated dollar value of direct benefits.
- (3) Indirect Costs & Benefits: Describe the indirect benefits and costs (as defined on page 1) for small businesses that are most likely to result from the proposed changes.
- (4) Alternatives: Add a qualitative discussion of any equally effective alternatives that would make the regulatory burden on small business more equitable compared to other affected business sectors, and how those alternatives were identified.
- (5) Information Sources: describe the sources of information used to determine the benefits and costs, including the source of the Quantitative Factors. If dollar amounts are not available, indicate why not.
- (6) Optional: Use this space to add any further information regarding the data provided in this table, including calculations, qualitative assessments, etc.

Note: If any of the above information was included in Table 1, use the same information here.

Table 4: Impact on Small Businesses

(1) Direct Costs & Benefits	Impacts specific to small businesses are not anticipated. The direct impact resulting from the development of water quality standards is for the protection of public health and safety and the protection of water quality in surface waters.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a) N/A
Direct Benefits	(b) N/A
(3) Indirect Costs & Benefits	N/A
(4) Alternatives	N/A
(5) Information Sources	Final Regulation Agency Background Document (TH-03), Virginia Department of Planning and Budget, Economic Impact Analysis - November 19, 2021
(6) Optional	

Changes to Number of Regulatory Requirements

For each individual VAC Chapter amended, repealed, or promulgated by this regulatory action, list (a) the initial requirement count, (b) the count of requirements that this regulatory package is adding, (c) the count of requirements that this regulatory package is reducing, (d) the net change in the number of requirements. This count should be based upon the text as written when this stage was presented for executive branch review. Five rows have been provided, add or delete rows as needed.

Table 5: Total Number of Requirements

	Number of Requirements			
Chapter number	Initial Count	Additions	Subtractions	Net Change
9VAC25-260	106 (Source: Regulatory Baseline Catalog. July 2020)	1 (Added: 9VAC25- 260-310. ii)	1 (Deleted: 9VAC25-260- 310.y)	0