

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 site specific selenium aquatic life criteria for four streams which are tributaries to Knox Creek in Buchanan County.
Date this document prepared	February 6, 2025
Regulatory Stage (including Issuance of Guidance Documents)	Final – No changes have been made to the ORM form since the Proposed stage.

Cost Benefit Analysis

Complete Tables 1a and 1b for all regulatory actions. You do not need to complete Table 1c if the regulatory action is required by state statute or federal statute or regulation and leaves no discretion in its implementation.

Table 1a should provide analysis for the regulatory approach you are taking. Table 1b should provide analysis for the approach of leaving the current regulations intact (i.e., no further change is implemented). Table 1c should provide analysis for at least one alternative approach. You should not limit yourself to one alternative, however, and can add additional charts as needed.

Report both direct and indirect costs and benefits that can be monetized in Boxes 1 and 2. Report direct and indirect costs and benefits that cannot be monetized in Box 4. See the ORM Regulatory Economic Analysis Manual for additional guidance.

Introduction

DEQ received correspondence dated April 25, 2023, from Clintwood JOD, LLC (CJOD), a coal mining company operating in Virginia, petitioning the State Water Control Board to promulgate site-specific aquatic life criterion for selenium. Specifically, CJOD formally requested that the Board amend the existing surface water quality criteria for selenium to allow a special standard (9VAC25-260-310) incorporating EPA's 2016 Recommended Aquatic Life Ambient Water Quality Criterion for Selenium in Freshwater. In response to the petition, the State Water Control Board directed staff to initiate a rulemaking to amend the WQS (9VAC25-260) to incorporate a site-specific selenium criterion for the protection of freshwater aquatic life that

only applies in four streams which are tributaries to Knox Creek in Buchanan County, Virginia. The selenium criterion has fish tissue and water column concentration values. The selenium concentration values are hierarchical so that fish values take precedence over water column values. This site-specific criteria for these four streams would align with EPA's 2016 recommended selenium criteria and would replace the existing selenium criteria currently applicable statewide and in the subject watersheds. This rulemaking is in the Final stage. There have been no changes to this Economic Review Form since the proposed stage.

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

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: There are no anticipated direct costs resulting from the proposed change. Indirect Costs: Facilities with VPDES permits in the Knox creek watershed subject to this site specific selenium criteria may incur a cost to collect fish tissue data to demonstrate compliance with the criteria. As the current statewide criteria only allows for water column data, this provides permittees with an additional option to measure selenium levels. Fish tissue samples are expected to cost approximately \$4,000 per watershed sample according to a firm representing the petitioner. Direct Benefits: There are no direct economic benefits of the proposed change. Indirect Benefits: Indirect benefits are recognized through protection of water quality and living resources of Virginia's waters for the designated uses of aquatic life and wildlife while providing additional options for permittees in the subject watersheds to demonstrate compliance with water quality requirements contained in VPDES permits. Fish tissue data gathered will give the department additional information on the presence of selenium in aquatic life in this watershed.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Approx. \$4,000 per watershed sample event	(b) N/A
(3) Net Monetized Benefit	N/A	
(4) Other Costs & Benefits (Non-Monetized)	Water quality criteria that become more stringent may result in increased costs to the regulated community. Site specific conditions will determine whether the proposed criteria will be more, or less, stringent than the current statewide standard. The petition to adopt the criteria was submitted by a Virginia Pollutant Discharge Elimination System (VPDES) permittee to allow them to have additional flexibility to	

	comply with permit requirements ensuring protection of the aquatic life designated use.
(5) Information Sources	Discussions with Regulatory Advisory Panel NOIRA Comments Submitted RE: Site-Specific Selenium Criteria (9VAC25–260). The NOIRA comment period closed on March 27, 2024. NOPC Comments Submitted RE: Site-Specific Selenium Criteria (9VAC25-260). The NOPC comment period ended December 6, 2024. Artemis Consulting Services, LLC P.O. Box 1085 Abingdon, VA 24212

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

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: There are no direct costs of the status quo. Indirect Costs: There are no indirect costs of the status quo. Direct Benefits: There are no direct economic benefits status quo. Indirect Benefits: There are no indirect benefits of the status quo.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) N/A	(b) N/A
(3) Net Monetized Benefit	N/A	
(4) Other Costs & Benefits (Non-Monetized)	N/A	
(5) Information Sources	N/A	

Table 1c: Costs and Benefits under Alternative Approach(es)

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: No alternative to this regulatory change was considered aside from maintaining the status quo and leaving the regulation unchanged. This was not considered because the State Water Control Board directed staff to initiate a rulemaking to amend the WQS to include site-specific
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	selenium criteria that reflect EPA’s most recent recommendations in the subject watersheds. Indirect Costs: N/A Direct Benefits: N/A Indirect Benefits: N/A	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) N/A	(b) N/A
(3) Net Monetized Benefit	N/A	
(4) Other Costs & Benefits (Non-Monetized)	N/A	
(5) Information Sources	N/A	

Impact on Local Partners

Use this chart to describe impacts on local partners. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 2: Impact on Local Partners

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: There are no direct costs to localities. Indirect Costs: There are no indirect costs to localities. Direct Benefits: There are no direct benefits to localities. Indirect Benefits: There are no indirect economic benefits to localities.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) N/A	(b) N/A

(3) Other Costs & Benefits (Non-Monetized)	Scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia.
(4) Assistance	N/A
(5) Information Sources	N/A

Impacts on Families

Use this chart to describe impacts on families. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 3: Impact on Families

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: It is not anticipated that the proposed modification will have direct costs on the institution of the family and family stability. Indirect Costs: It is not anticipated that the proposed modification will have an indirect costs on the institution of the family and family stability. Direct Benefits: It is not anticipated that the proposed modification will have direct benefit on the institution of the family and family stability. Indirect Benefits: It is not anticipated that the proposed modification will have an indirect benefit on the institution of the family and family stability.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) N/A	(b) N/A
(3) Other Costs & Benefits (Non-Monetized)	Scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia.	
(4) Information Sources		

Impacts on Small Businesses

Use this chart to describe impacts on small businesses. See Part 8 of the ORM Cost Impact Analysis Guidance for additional guidance.

Table 4: Impact on Small Businesses

(1) Direct & Indirect Costs & Benefits (Monetized)	Direct Costs: There are no direct costs of the proposed change. Indirect Costs: There may be indirect costs of the proposed change in the form of data collection for fish tissue selenium concentrations in support of criteria implementation. Direct Benefits: There are no direct economic benefits. Indirect Benefits: There may be indirect benefits in providing VPDES permittees additional options to demonstrate compliance with permit requirements established to protect water quality and designated uses.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Approx. \$4,000 per watershed sample event	(b)
(3) Other Costs & Benefits (Non-Monetized)	Scientifically correct and legally defensible water quality standards to protect the surface waters of Virginia.	
(4) Alternatives	N/A	
(5) Information Sources	Artemis Consulting Services, LLC P.O. Box 1085 Abingdon, VA 24212	

Changes to Number of Regulatory Requirements**Table 5: Regulatory Reduction**

For each individual action, please fill out the appropriate chart to reflect any change in regulatory requirements, costs, regulatory stringency, or the overall length of any guidance documents.

Change in Regulatory Requirements

VAC Section(s) Involved*	Authority of Change	Initial Count	Additions	Subtractions	Total Net Change in Requirements
9VAC25-260-310	(M/A):	15	0	0	0
	(D/A):	0	0	0	0
	(M/R):	4	0	0	0
	(D/R):	0	0	0	0
				Grand Total of Changes in Requirements:	(M/A): 0 (D/A): 0 (M/R): 0

	(D/R): 0
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Key:

Please use the following coding if change is mandatory or discretionary and whether it affects externally regulated parties or only the agency itself:

(M/A): Mandatory requirements mandated by federal and/or state statute affecting the agency itself

(D/A): Discretionary requirements affecting agency itself

(M/R): Mandatory requirements mandated by federal and/or state statute affecting external parties, including other agencies

(D/R): Discretionary requirements affecting external parties, including other agencies

Cost Reductions or Increases (if applicable)

VAC Section(s) Involved*	Description of Regulatory Requirement	Initial Cost	New Cost	Overall Cost Savings/Increases
N/A				

Other Decreases or Increases in Regulatory Stringency (if applicable)

VAC Section(s) Involved*	Description of Regulatory Change	Overview of How It Reduces or Increases Regulatory Burden
N/A		

Length of Guidance Documents (only applicable if guidance document is being revised)

Title of Guidance Document	Original Word Count	New Word Count	Net Change in Word Count

*If the agency is modifying a guidance document that has regulatory requirements, it should report any change in requirements in the appropriate chart(s).