

Office of Regulatory Management  
Economic Review Form

<b>Agency name</b>	Virginia Department of Environmental Quality
<b>Virginia Administrative Code (VAC) Chapter citation(s)</b>	not applicable
<b>VAC Chapter title(s)</b>	not applicable
<b>Action title</b>	
<b>Date this document prepared</b>	June 21, 2023
<b>Regulatory Stage (including Issuance of Guidance Documents)</b>	Issuance of Guidance Document Final 2024 Water Quality Assessment Guidance Manual

**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.

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

<p>(1) Direct &amp; Indirect Costs &amp; Benefits (Monetized)</p>	<p>Both the federal Clean Water Act and the state Water Quality Monitoring, Information, and Restoration Act (WQMIRA) require a biannual water quality assessment and impaired waters report, often referred to as the 305(b) and 303(d) reports in reference to the relevant CWA sections. Additionally, WQMIRA directs DEQ to develop and publish a water quality assessment guidance document governing the process for defining and determining impaired waters, and to provide an opportunity for public comment on the assessment guidance. The purpose of this guidance manual is to guide DEQ staff in the development and reporting of the 2024 Integrated Report (305(b) Water Quality Assessment/303(d) Impaired Waters List). It is also intended to assist the public in understanding the monitoring and assessment process. This guidance manual is updated and issued on a biannual basis at the start of each Integrated Report (IR) cycle. The updates aim to streamline and/or refine assessment processes from previous cycles. Significant updates that have been made to the Virginia 2024 Water Quality Assessment Guidance Manual include:</p> <ol style="list-style-type: none"> <li>1. New methodology for assessing benthic chlorophyll-a in parts of the North and South Forks and mainstem of the Shenandoah River.</li> <li>2. The addition of Category 3E to categorize parameters identified as stressors in TMDL development that do not have water quality standards.</li> <li>3. A streamlined data submittal and data management process for volunteer and non-agency data using the new Virginia Data Explorer database.</li> </ol> <p>Direct Costs: It is estimated, using best professional judgement, that DEQ assessment staff will spend a total of 100 additional hours to make assessment determinations using the new benthic chlorophyll-a methodology. Using an average salary of \$40.00 per hour, a total of \$4,000 will be expended to make assessment determinations using the new methodology. No additional costs will be incurred with the other guidance updates.</p> <p>Indirect Costs: Water quality assessment methodologies that are based on new or updated water quality criteria, or updated EPA IR guidance may result in increased costs to the regulated community as a result of newly identified impaired waters. Waterbodies that are identified as impaired in the IR comprise the Clean Water Act §303(d) impaired waters list and require a clean-up plan or Total Maximum Daily Load (TMDL) per the Clean Water Act and § 62.1-44.19:7 of state code. The TMDLs identify sources of pollutants contributing to impairments and establish reductions needed to achieve water quality standards in the waterbody,</p>
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	<p>which could include permitted point sources. However, the results of the future 2024 IR assessment are not known, and any subsequent costs to the regulated or non-regulated communities cannot be gaged. Additionally, future potential costs to impacted communities would be captured in future TMDL development. Lastly, use of outdated water quality assessment guidelines not reflective of updated Water Quality Standards and guidelines from EPA may result in inaccurate assessments and impairment determinations. The incorrect assessment of certain waters (such as trout waters) could lead to inappropriate identification of impaired waters and possibly unnecessary TMDL development.</p> <p>Direct Benefits: It is estimated that the new Virginia Data Explorer database and resulting streamlined data submittal and data management processes has saved 960 hours of staff time across all DEQ regions or \$38,400 (using the assumed hourly rate of \$40/hr).</p> <p>Indirect Benefits: The updated assessment methodologies produce indirect benefits by accurately reporting on the status of designated uses in waters of the Commonwealth, including aquatic life, wildlife, recreation, public water supply, shellfish consumption, and fish consumption. While monetization of these benefits cannot be easily determined, the use of the updated methodology 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. The updated methodologies further ensure that public water supply 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 assessments and TMDLs to restore water quality.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Direct costs = \$4,000 Indirect costs are unable to be monetized.	(b) Direct benefits = \$38,400 Indirect benefits are unable to be monetized.
(3) Net Monetized Benefit	\$34,400	
(4) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.	
(5) Information Sources	The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law. The Federal Water Pollution Control Act.	

	DEQ Staff best professional judgement to estimate regional staff time and costs.
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**Table 1b: Costs and Benefits under the Status Quo (No change to the regulation)**

(1) Direct & Indirect Costs & Benefits (Monetized)	<p>There is no status quo option as WQMIRA requires a guidance document to be developed for each Integrated Reporting cycle. The 2024 Water Quality Assessment Guidance Manual builds on the previous cycle guidance with the aim to streamline and/or refine assessment processes to make the process more efficient for DEQ staff.</p> <p>Direct Costs: not applicable</p> <p>Indirect Costs: not applicable</p> <p>Direct Benefits: not applicable</p> <p>Indirect Benefits: The 2024 assessment process started with the data solicitation deadline on March 6, 2023. To produce a timely IR, the non-DEQ data collection and management has been completed per the Draft 2024 Water Quality Assessment Guidance Manual and has saved an estimated 960 hours of staff time across all DEQ regions or \$38,400 (using an assumed hourly rate of \$40/hr).</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) not applicable	(b) Indirect Benefit = \$38,400
(3) Net Monetized Benefit	\$38,400	
(4) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.	
(5) Information Sources	<p>The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law.</p> <p>The Federal Water Pollution Control Act.</p> <p>DEQ Staff best professional judgement to estimate regional staff time and costs.</p>	

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

(1) Direct & Indirect Costs & Benefits	There are no alternative options as WQMIRA requires a guidance document to be developed for each Integrated Reporting cycle. The 2024 Water Quality Assessment Guidance Manual builds on the previous
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Benefits (Monetized)	cycle guidance with the aim to streamline and/or refine assessment processes to make the process more efficient for DEQ staff.	
	Direct Costs: not applicable	
	Indirect Costs: not applicable	
	Direct Benefits: not applicable	
	Indirect Benefits: not applicable.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) not applicable	(b) not applicable
(3) Net Monetized Benefit	not applicable	
(4) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.	
(5) Information Sources	The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law. The Federal Water Pollution Control Act. DEQ Staff best professional judgement to estimate regional staff time and costs.	

**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)	<p>Direct Costs: It is not anticipated that this guidance will have a direct impact on local partners.</p> <p>Indirect Costs: not applicable</p> <p>Direct Benefits: Updated water quality assessment methodologies broadly benefit the public by ensuring they are based on best available scientific information and current water quality standards.</p> <p>Indirect Benefits: The updated assessment methodologies produce indirect benefits by accurately reporting the condition of water quality and living resources in Virginia's waters; specifically, the support of the designated uses: aquatic life, wildlife, recreation, public water supply,</p>
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	shellfish consumption, and fish consumption. This awareness 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. These indirect benefits may also benefit local partners.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) unable to be monetized	(b) unable to be monetized
(3) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.	
(4) Assistance	Not applicable	
(5) Information Sources	The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law. The Federal Water Pollution Control Act.	

**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)	<p>Direct Costs: It is not anticipated that this guidance will have a direct impact on families.</p> <p>Indirect Costs: not applicable</p> <p>Direct Benefits: Updated water quality assessment methodologies broadly benefit the public by ensuring they are based on best available scientific information and current water quality standards.</p> <p>Indirect Benefits: The updated assessment methodologies produce indirect benefits by accurately reporting the condition of water quality and living resources in Virginia's waters; specifically, the support of the designated uses: aquatic life, wildlife, recreation, public water supply, shellfish consumption, and fish consumption. This awareness 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</p>
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	recreational fishing industries. These indirect benefits may also benefit families.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) unable to be monetized	(b) unable to be monetized
(3) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.	
(4) Information Sources	The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law. The Federal Water Pollution Control Act.	

**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)	<p>Direct Costs: It is not anticipated that this guidance will have a direct impact on small businesses.</p> <p>Indirect Costs: not applicable</p> <p>Direct Benefits: Updated water quality assessment methodologies broadly benefit the public by ensuring they are based on best available scientific information and current water quality standards.</p> <p>Indirect Benefits: The updated assessment methodologies produce indirect benefits by accurately reporting the condition of water quality and living resources in Virginia's waters; specifically, the support of the designated uses: aquatic life, wildlife, recreation, public water supply, shellfish consumption, and fish consumption. This awareness 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. These indirect benefits may also benefit small businesses.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) unable to be monetized	(b) unable to be monetized

(3) Other Costs & Benefits (Non-Monetized)	The methods included in this guidance document assist with the assessment and protection of state waters and the benefits are unable to be monetized.
(4) Alternatives	Not applicable
(5) Information Sources	The Water Quality Monitoring, Information and Restoration Act as contained in State Water Control Law. The Federal Water Pollution Control Act.

**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.

This is a new guidance document and the guidance document does not contain any regulatory requirements.

<b>Title of Guidance Document</b>	<b>Original Length</b>	<b>New Length</b>	<b>Net Change in Length</b>
Final 2024 Water Quality Assessment Guidance		112 Pages	

The 2018, 2020 and 2022 versions of this guidance manual will be removed from the TownHall website and be available as historical references through the DEQ website. Rescinding of the 2018, 2020 and 2022 manuals will remove 353 pages of current guidance documents. The 2024 guidance document is 112 pages, still achieving a net reduction of 241 pages of guidance.