

Office of Regulatory Management
Economic Review Form

Agency name	Department of Environmental Quality
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC25-900
VAC Chapter title(s)	Certification of Nonpoint Source Nutrient Credits
Action title	Periodic Review
Date this document prepared	8/19/24
Regulatory Stage (including Issuance of Guidance Documents)	Periodic Review

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)

Omitted pursuant to ORM Regulatory Economic Analysis Manual

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

Omitted pursuant to ORM Regulatory Economic Analysis Manual

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

Omitted pursuant to ORM Regulatory Economic Analysis Manual

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

<p>(1) Direct & Indirect Costs & Benefits (Monetized)</p>	<p><u>Background:</u></p> <p>In 2005, the state legislature created the Chesapeake Bay Watershed Nutrient Credit Exchange Program to allow Virginia’s point and nonpoint sources (NPS) of nutrient pollution in the Chesapeake Bay Watershed to meet required nutrient reductions through trading (VA Code § 62.1-44.19:14 et seq). In 2020, the State Water Control Board adopted 9VAC25-900, Certification of Nonpoint Source Nutrient Credits.</p> <p>This regulation effectively establishes a state-wide free market for nonpoint source nutrient reductions and through the Department of Environmental Quality’s (Department or DEQ) certification of NPS nutrient credits (NPS Trading Program), these credits can be sold or transferred to stormwater construction general permit (CGP) holders for offsetting phosphorus loads from new development or redevelopment cost-effectively. NPS nutrient credits may also be utilized for meeting nutrient Total Maximum Daily Load (TMDL) waste load allocations (WLAs) and Chesapeake Bay TMDL special conditions in municipal separate storm sewer system (MS4) and industrial stormwater permits, also providing a cost-effective strategy for meeting Virginia’s Chesapeake Bay TMDL Watershed Implementation Plan (WIP) obligations.</p> <p>Virginia’s NPS trading program is the most robust NPS trading program in the country with hundreds of credit transactions being made annually in order to achieve compliance with DEQ water permits. In 2023, approximately 2,123 pounds of phosphorus were sold and the estimated 2023 market value of the NPS trading program was approximately \$31,845,000. This market would not exist without DEQ’s promulgation of 9VAC25-900 and the implementation of the NPS Trading Program.</p> <p>NPS nutrient credit generating activities (such as land use conversions or stream restorations) may be voluntarily implemented on unregulated lands with higher nutrient pollution loads, such as agricultural lands, to achieve cost-effective nutrient reductions. These reductions can be transferred or sold to regulated entities within nutrient source sectors, such as new development, where the cost per pound of nutrient reduction for stormwater best management practices (BMPs) are often much higher than the cost of typical credit generating activities.</p>
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	<p>Direct Costs: As a voluntary program, the NPS nutrient trading program does not impose any direct costs on localities. Both NPS nutrient credit certification and NPS nutrient credit use are voluntary for all stakeholders – including localities. Under no circumstance does the Department expect participation in the NPS trading market if credit generation is not profitable or credit use does not provide cost savings for water permit compliance.</p> <p>Indirect Costs: None. Participation in the program is voluntary.</p> <p>Direct and Indirect Benefits: Participation in the NPS nutrient trading market is completely discretionary through individual or entity determination that the generation or purchase NPS nutrient credits is either profitable or reduces the cost of water permit compliance.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) As a voluntary program, there are no direct and indirect costs.	(b) NPS nutrient credit certification or NPS credit use provides water permittees with an alternative to meeting onsite treatment requirements or TMDL WLAs. The Department is unable to precisely quantify the benefits of NPS nutrient credit certification or credit use because the benefits are dependent on site or system specific parameters such as (1) the geographic location of the permitted activity within a watershed, (2) whether the permitted activity discharges to impaired waters, or (3) market rates for nutrient credit purchase. Market rates can vary based on (1) and (2), as well as watershed urbanization and NPS credit demand within a specific watershed. These factors determine the cost-effectiveness of NPS nutrient credit certification or credit purchase.
(3) Other Costs & Benefits (Non-Monetized)	<p>Direct Benefit: Localities may obtain non-point source nutrient credit certification and may also purchase certified nonpoint source nutrient credits. Certified credits may be applied to the locality’s construction</p>	

	<p>projects that meet the conditions of offsite compliance options requirements for CGP compliance cost savings.</p> <p>Direct Benefit: MS4 permittee localities may also purchase NPS credits as a cost-effective strategy for achieving Chesapeake Bay TMDL special conditions.</p> <p>Indirect Benefit: Purchase of NPS nutrient credits can reduce or prevent the burden of stormwater BMP maintenance costs.</p> <p>Indirect Benefit: Purchase of NPS nutrient credits may also conserve a locality’s developable land resources.</p>
(4) Assistance	Local governments may apply for Stormwater Local Assistance Fund (SLAF) grants for the purchase of NPS nutrient credits.
(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)	<p>Direct and Indirect Costs: As a voluntary program, the NPS nutrient trading program does not impose any direct costs on families. Both NPS nutrient credit certification and NPS nutrient credit use are voluntary for all stakeholders. Under no circumstance does the Department expect participation in the NPS trading market if credit generation is not profitable or credit use does not provide cost savings for water permit compliance.</p> <p>Indirect Costs: None. Participation in the program is voluntary.</p> <p>Direct and Indirect Benefits: Participation in the NPS nutrient trading market is completely discretionary through individual or entity determination that the generation or purchase NPS nutrient credits is either profitable or reduces the cost of water permit compliance.</p>	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) As a voluntary program, there are no direct and indirect costs.	(b) NPS nutrient credit certification can provide landowners with a with a revenue stream for land

		<p>conservation practices. NPS credit use provides water permittees with a cost-effective alternative to meeting onsite treatment requirements. The Department is unable to precisely quantify the benefits of NPS nutrient credit certification or credit use because the benefits are dependent on site or specific parameters such as (1) the geographic location of the permitted activity within a watershed, (2) whether the permitted activity discharges to impaired waters, or (3) market rates for nutrient credit purchase. Market rates can vary based on (1) and (2), as well as watershed urbanization and NPS credit demand within a specific watershed. These factors determine the cost-effectiveness of NPS nutrient credit certification or credit purchase.</p>
(3) Other Costs & Benefits (Non-Monetized)	<p>Direct Benefit: NPS nutrient credit certification can provide landowners with a revenue stream for land conservation practices.</p> <p>Direct Benefit: Certified nonpoint source nutrient credits may be purchased to cost-effectively satisfy CGP requirements for single family homes.</p> <p>Indirect Benefit: Purchase of NPS nutrient credits can reduce or prevent the burden of stormwater BMP maintenance costs for single family homes.</p>	
(4) Information Sources	N/A	

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

<p>(1) Direct & Indirect Costs & Benefits (Monetized)</p>	<p>Direct Costs: As a voluntary program, the NPS nutrient trading program does not impose any direct costs on either stakeholders or the Department. Both NPS nutrient credit certification and NPS nutrient credit use are voluntary for all stakeholders. Under no circumstance does the Department expect participation in the NPS trading market if credit generation is not profitable or credit use does not provide cost savings for water permit compliance.</p> <p>Indirect Costs: None. Participation in the program is voluntary.</p> <p>Direct and Indirect Benefits: Participation in the NPS nutrient trading market is completely discretionary through individual or entity determination that the generation or purchase NPS nutrient credits is either profitable or reduces the cost of water permit compliance.</p>	
<p>(2) Present Monetized Values</p>	<p>Direct & Indirect Costs</p>	<p>Direct & Indirect Benefits</p>
	<p>(a) As a voluntary program, there are no direct and indirect costs.</p>	<p>(b) NPS nutrient credit certification can provide landowners with a with a revenue stream for land conservation practices. NPS credit use provides water permittees with a cost-effective alternative to meeting onsite treatment requirements. The Department is unable to precisely quantify the benefits of NPS nutrient credit certification or credit use because the benefits are dependent on site or specific parameters such as (1) the geographic location of the permitted activity within a watershed, (2) whether the permitted activity discharges to impaired waters, or (3) market rates for nutrient credit purchase. Market rates can vary based on (1) and (2), as well as watershed urbanization and NPS credit demand within a specific watershed. These factors determine the cost-effectiveness of NPS nutrient credit certification or credit purchase.</p>

(3) Other Costs & Benefits (Non-Monetized)	<p>Direct Benefit: NPS nutrient credit certification can provide landowners with a with a revenue stream for land conservation practices.</p> <p>Direct Benefit: Certified nonpoint source nutrient credits may be purchased to cost-effectively satisfy CGP requirements for commercial development.</p> <p>Indirect Benefit: Purchase of NPS nutrient credits can reduce or prevent the burden of stormwater BMP maintenance costs for commercial development.</p>
(4) Alternatives	Stormwater treatment for CGP requirements may be achieved onsite.
(5) Information Sources	N/A

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 periodic review. No changes to the regulation are being proposed at this time.