

Office of Regulatory Management
Economic Review Form

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC25-800
VAC Chapter title(s)	VPDES General Permit Regulation for Discharges Resulting From the Application of Pesticides to Surface Waters
Action title	Amend and Reissue the Existing General Permit Regulation
Date this document prepared	9/8/2022

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.

VPDES general permit regulations expire every 5 years and must be re-issued in order for permit coverage to be available to new permittees and existing permittees that do not submit a registration statement in a timely manner. If the general permit is not re-issued, the regulated community will need to obtain an individual permit to conduct the regulated activity. For this reason, the costs associated with obtaining an individual permit are compared with the costs associated with general permit coverage. General permits provide the regulated community with a streamlined, less burdensome approach to obtain coverage for conducting a specific regulated activity. This form was completed initially for the proposed regulation. Only editorial changes have been made between the proposed and final regulatory stages, the information on this Economic Review Form remains accurate.

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

<p>(1) Direct Costs & Benefits</p>	<ul style="list-style-type: none"> • For animal pest control, added “cultural methods” to the five existing pest management measures that must be evaluated in order to identify the measures that are most efficient and effective to minimize discharges from the application of pesticides. <p>Direct Costs: Unknown. Expected to be minimal. No existing available cost analysis is broken down at the necessary level of detail.</p> <p>EPA’s “Cost Impact Analysis for the EPA’s Draft 2016 Pesticide General Permit (PGP)” (the most recent cost document identified) estimates \$0 annual technology-based effluent limit (TBEL)¹ cost (excluding NMFS List Resources) for Animal Pest Control (Table 3; pg.8). Note that the item being added is one management measure among five existing management measures that must be evaluated for animal pest control (and that animal pest control is one pesticide use pattern among five covered by the general permit). DEQ does not have data for the number and size of aquatic pesticide applications.</p>
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¹ TBELs for this general permit include requirements to minimize pesticide discharges to surface waters (e.g., use the lowest effective amount and optimum frequency, use equipment that is in sound condition, use equipment that allows operators to pass over non-target areas, and assess weather conditions to ensure application is consistent with label requirements). In addition, operators with control over financing or the decision to apply pesticides that result in discharges must, to the extent practicable, consider integrated pest management practices to ensure pesticide discharge are minimized (e.g., characterize the problem, evaluate a set of pest management measures, and utilize action thresholds if pesticides are used).

	<p>Direct Benefits: Unknown. No existing quantitative benefits analysis has been identified. EPA’s 2011 “Economic Analysis of the Pesticide General Permit (PGP) for Point Source Discharges from the Application of Pesticides” includes in section 7 a qualitative discussion of benefits. It states in part “[i]nformation is not available to quantify or monetize beneficial impacts. Reducing discharges of these pesticides through compliance with the technology-based and water quality-based effluent limitations as well as the documentation and monitoring requirements in the PGP may lead to ecological benefits and associated values. (Sec. 7, pg. 97).</p>		
(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) See above.	(c)	
Direct Benefits	(b) See above.	(d)	
(3) Benefits-Costs Ratio		(4) Net Benefit	
(5) Indirect Costs & Benefits	<p>No indirect costs or benefits are expected due to the limited extent of changes being made to the general permit regulation.</p>		
(6) Information Sources	<p>Cost Impact Analysis for the EPA’s Draft 2016 Pesticide General Permit (PGP), U.S. EPA, January 14, 2016. https://www.regulations.gov/document/EPA-HQ-OW-2015-0499-0111</p> <p>ECONOMIC ANALYSIS OF THE PESTICIDE GENERAL PERMIT (PGP) FOR POINT SOURCE DISCHARGES FROM THE APPLICATION OF PESTICIDES, United States Environmental Protection Agency Office of Wastewater Management, October 28, 2011 https://www.regulations.gov/document/EPA-HQ-OW-2010-0257-0151</p> <p>9VAC25-800, NOPC, 7/25/2022.</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.

(1) Direct Costs & Benefits	<ul style="list-style-type: none"> • The limited changes in this general permit regulation are being made to maintain consistency with the EPA 2021 reissuance of its pesticide general permit. • Direct Costs of Maintaining the Current Regulatory Requirements (no changes): Unknown. No existing available cost analysis addresses the VPDES Pesticide general permit. In terms of available estimated costs, EPA’s 2011 “Economic Analysis of the Pesticide General Permit (PGP) for Point Source Discharges from the Application of Pesticides” estimated total costs ranging from \$76,932 to \$2,722,428 per year for the six unauthorized states and the District of Columbia that were analyzed (Table 5-29, pg. 88). Note that the VPDES Pesticide general permit is similar, but not identical to, the EPA pesticide general permit (e.g., the VPDES permit does not require the submittal of a registration statement). So the cost of the existing VPDES Pesticide general permit would be less than the EPA permit. • Direct Benefits of Maintaining the Current Regulatory Requirements (no changes): Unknown. No existing quantitative benefits analysis has been identified. EPA’s 2011 “Economic Analysis of the Pesticide General Permit (PGP) for Point Source Discharges from the Application of Pesticides” includes in section 7 a qualitative discussion of benefits. It states in part “[i]nformation is not available to quantify or monetize beneficial impacts. Reducing discharges of these pesticides through compliance with the technology-based and water quality-based effluent limitations as well as the documentation and monitoring requirements in the PGP may lead to ecological benefits and associated values. (Sec. 7, pg. 97). 		
(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) See above.	(c)	
Direct Benefits	(b) See above.	(d)	
(3) Benefits-Costs Ratio		(4) Net Benefit	
(5) Indirect Costs & Benefits			
(6) Information Sources			

(7) Optional	
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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"> • No regulatory alternatives were considered during this phase of general permit reissuance. • Under the decision of the Sixth Circuit Court of Appeals in National Cotton Council of America v. EPA (553 F.3d 927 (6th Cir., 2009)), DEQ does not have flexibility to adopt a non-regulatory approach to addressing discharges of aquatic pesticides to surface waters. Such discharges have been determined to be point source discharges of a pollutant that require a VPDES permit. • This general permit already incorporates and is coordinated with VDACS pesticide regulations to the extent possible. For example, this general permit does not require the submittal of a registration statement based in part on information collected by VDACS, which reduces the cost and burden on operators. • A benefit of this general permit is its lower cost to permittees relative to the cost of obtaining an individual permit. The permit fee for operators to obtain coverage under this general permit is \$0. If this general permit were not available these operators would be required to obtain an individual VPDES permit, and the initial application fee would be \$3,300 (assumes industrial minor, standard limits). An annual permit maintenance fee of \$1,969 would also apply (total of \$11,176 per permittee/ 5-year permit term). This does not account for the longer lead time to obtain an individual permit and the increased burden on DEQ staff resources that would result. EPA acknowledges the lower costs of its pesticide general permit in its 2011 “Economic Analysis of the Pesticide General Permit (PGP) for Point Source Discharges from the Application of Pesticides,” which states “[n]ote that the administrative and monitoring costs presented herein likely are much less than if NPDES individual permits were issued to each of the affected entities in the areas for which the U.S. Environmental Protection Agency (EPA) is developing this NPDES general permit. (ES, pg. vi).
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(2) Quantitative Factors	Estimated Dollar Amount	Present Value	
Direct Costs	(a) NA	(c)	
Direct Benefits	(b) NA	(d)	
(3) Benefits-Costs Ratio		(4) Net Benefit	
(5) Indirect Costs & Benefits			
(6) Information Sources			
(7) Optional			

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	No costs or benefit impacts on local partners are expected due to the limited extent of changes being made to the general permit regulation. General permits provide the regulated community with a streamlined, less burdensome approach to obtain coverage for conducting a specific regulated activity. Without this general permit regulation, an individual permit would be required to conduct the regulated activity.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a)
Direct Benefits	(b)
(3) Indirect Costs & Benefits	
(4) Information Sources	
(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	No indirect costs or benefit impacts on families are expected due to the limited extent of changes being made to the general permit regulation.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a)
Direct Benefits	(b)
(3) Indirect Costs & Benefits	
(4) Information Sources	
(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	No indirect costs or benefit impacts on small businesses are expected due to the limited extent of changes being made to the general permit regulation. General permits provide the regulated community with a streamlined, less burdensome approach to obtain coverage for conducting a specific regulated activity. Without this general permit regulation, an individual permit would be required to conduct the regulated activity.
(2) Quantitative Factors	Estimated Dollar Amount
Direct Costs	(a)
Direct Benefits	(b)
(3) Indirect Costs & Benefits	
(4) Alternatives	
(5) Information Sources	
(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.

The existing general permit approach contains 83 requirements applicable to the regulated community, whereas an individual permit for this activity is estimated to potentially contain 182 requirements applicable to the regulated community. The general permit provides a streamlined approach for the regulated community to utilize that contains as many as 99 fewer requirements applicable to the regulated community.

Table 5: Total Number of Requirements

	Number of Requirements			
Chapter number	Initial Count	Additions	Subtractions	Net Change
9VAC25-800	83	0 ²	0	0

² The sub-item added to an existing requirement to review specified pest management measures.