Office of Regulatory Management

Economic Review Form

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC25-31 9VAC25-32
VAC Chapter title(s)	Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation (9VAC25-31) Virginia Pollution Abatement (VPA) Permit Regulation (9VAC25-32)
Action title	Implementation of Chapters 853 and 854 of the 2026 Acts of Assembly
Date this document prepared	5/12/2026
Regulatory Stage (including Issuance of Guidance Documents)	Final Exempt

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)

(1) Direct & Indirect Costs & Benefits (Monetized)	**Background:** Chapters 853 and 854 of the 2026 Acts of Assembly (HB1433 – Del. Lopez; SB386 – Sen. Stuart) amend § 62.1-44.19:3 of the Code of Virginia to establish per- and polyfluoroalkyl substances (PFAS) testing, reporting, and concentration-based management requirements for owners of sewage treatment works and other permit holders that land apply, market, or distribute sewage sludge in the Commonwealth. The legislation is summarized as follows: 1. Section 62.1-44.19:3 T of the Code of Virginia states that "Beginning January 1, 2027, any owner of a sewage treatment works land applying, marketing, or distributing sewage sludge in the Commonwealth shall collect representative samples of the sewage sludge intended to be land applied, marketed, or distributed and have such samples analyzed by an accredited laboratory for PFAS". This section also specifies the analysis method, the frequency of sampling, and the requirement to report analysis results to the Department and any person land applying the sewage sludge. In addition, the requirements of this section apply to the permit holder intending to land apply, market, or distribute sewage sludge that originates from outside the Commonwealth. 2. Section 62.1-44.19:3 U of the Code of Virginia sets PFAS concentration-based biosolids management requirements after July 1, 2027. Based on perfluorooctanoic acid (PFOA) or perfluorooctane sulfonate (PFOS) concentrations in the sewage sludge, the land application, marketing, and distribution of such material is either: allowable with land owner notification, restricted with land owner notification, or prohibited and alternate treatment, use, or disposal must be arranged. 3. Section 62.1-44.19:3 V of the Code of Virginia sets PFAS concentration-based biosolids management requirements after July 1, 2029. Based on a combined PFOA and PFOS concentration in the sewage sludge, the land application, marketing, and distribution of such material is either: allowable with land owner notification, restricted with land owner notification, or prohibited and alternate treatment, use, or disposal must be arranged. Section 62.1-44.19:3 A 2 of the Code of Virginia states that "Sewage sludge shall be treated to meet standards for land application as required by Board regulation prior to delivery at the land application site." Sewage sludge that has received an established treatment and contains

	acceptable levels of certain pollutants, such that it is acceptable for land application, marketing or distribution in accordance with the VPDES Permit Regulation or the VPA Permit Regulation, is known as "biosolids." Chapters 853 and 854 of the 2026 Acts of Assembly refer to this material as "sewage sludge." Because of the distinction between "sewage sludge" and "biosolids," further references within this form and within the regulatory action use the term "biosolids" when referring to material intended for land application, marketing, or distribution. This rulemaking amends the Virginia Pollutant Discharge System (VPDES) Permit Regulation (9VAC25-31) and Virginia Pollutant Abatement (VPA) Permit Regulation (9VAC25-32) to be consistent with the change to Virginia statutory law. **Direct Costs:** There are 67 publicly and privately owned wastewater treatment plants (WWTPs) in Virginia that treat sewage sludge to levels required for biosolids land application, distribution, or marketing. The Department issues permits to WWTPs and contractors that land apply biosolids in 61 localities. There are currently 111 permits authorizing land application by 14 WWTPs and contractors that land apply biosolids in Virginia. The WWTPs and contractors land applied 115,440 dry tons of biosolids in 2024. Of the total land applied, approximately 77,000 dry tons were from WWTPs in Virginia and approximately 38,000 dry tons came from WWTPs in other states. The extent of direct costs on owners of treatment works will include new procedures for sampling, analyzing, and reporting PFAS results, as well as new procedures for storing and managing material while test results are verified, and arranging for alternate treatment, use, or disposal when specified thresholds are exceeded. There are 15 laboratories in Virginia that are currently certified by the Division of Consolidated Laboratory Services to do PFAS testing for biosolids. Test costs are currently in the range of $375-$750 per sample with a minimum turnaround time of 15 days. If certain thresholds of PFOS and/or PFOA concentrations are exceeded, alternate treatment, use, or disposal requirements will likely result in increased disposal of sewage sludge at landfills. Landfills have been reluctant to accept biosolids or sewage sludge because of its moisture content, odor, and their own volume limitations. The Department does not have adequate information to estimate the landfill disposal costs. The extent of direct costs on land appliers will include new procedures for verifying PFAS concentrations and notifying land owners of PFAS concentrations. In addition, if the person land applying, marketing, or distributing biosolids obtains such material from outside the

	Commonwealth, they will incur all the direct costs of obtaining analysis results, reporting, and land owner notification. Stakeholders such as utility rate payers may be subjected to rate increases due to the increase in direct costs to WWTPs, however, the Department is not able to estimate how costs will be passed on to stakeholders. The change to state law establishes an ongoing obligation for the Department to receive, review, and assess recurring laboratory data submissions; determine compliance; evaluate alternative management approaches where applicable, initiate enforcement; and oversee implementation of land application restrictions. The amount of direct costs incurred by the Department is anticipated to be $625,000 annually. These costs include hiring five new positions to include one data analyst, one waste-specific technical reviewer, and three compliance coordinators. **Indirect Costs:** Indirect costs may be incurred by the regulated entities and stakeholders due to the same factors described above in the Direct Costs discussion. The Department cannot identify or estimate all of the potential costs. **Direct and Indirect Benefits:** This change in the law and resulting regulation provides for increased data availability and transparency regarding PFAS levels in biosolids that are land applied, marketed, and distributed in the Commonwealth. It is anticipated that the concentration-based management requirements will result in a reduction in the land application, marketing, and distribution of biosolids containing PFAS. An expected indirect benefit of this monitoring and concentration-based management is the protection of human health and the environment, including public water supplies. The Department is unable to determine the monetized value of the Direct and Indirect Benefits.

(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a)Test costs for PFAS analysis incurred by WWTPs in the range of $375-$750 per sample. Unable to estimate the total cost as it would depend on the number of samples analyzed. Anticipated cost	(b) Indeterminate.

	to the Department of $625,000 annually.	
(3) Net Monetized Benefit	Indeterminate.	
(4) Other Costs & Benefits (Non-Monetized)	Indeterminate direct and indirect benefits from increased data availability and transparency regarding PFAS in biosolids, and an anticipated reduction in the land application, marketing, and distribution of biosolids containing PFAS, and the protection of human health and the environment. Indeterminate direct and indirect costs due to new requirements for WWTPs generating and permit holders applying biosolids, and the resulting change in the use and disposal of biosolids in the Commonwealth.	
(5) Information Sources	• Department of Planning and Budget, State Fiscal Impact Statement for HB1443ER • Chapters 853 and 854 of the 2026 Acts of Assembly • Discussions with Department staff	

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

(1) Direct & Indirect Costs & Benefits (Monetized)	This regulatory amendment is in response to a change in state law where no agency discretion is involved. Retaining the status quo is not an option. The current regulations do not contain PFAS testing, reporting, and concentration-based management requirements for the land application, distribution, and marketing of treated sewage sludge. **Direct and Indirect Costs:** N/A **Direct and Indirect Benefits:** N/A	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Unable to be estimated but costs would be the same as they have been under the status quo.	(b) None identified.
(3) Net Monetized Benefit	Indeterminate.	
(4) Other Costs & Benefits (Non-Monetized)	None identified.	

(5) Information Sources	See Table 1a.

Table 1c: Costs and Benefits under Alternative Approach(es)
This action is mandated by state statute. There are no alternative approaches.

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 and Indirect Costs:** Publicly owned WWTPs are expected to be the primary local partner impacted by this change in state law and corresponding regulatory amendment. See the discussion in Table 1a. The Department does not have adequate information to estimate the total direct and indirect cost to local partners. **Direct and Indirect Benefits:** Indeterminate direct and indirect benefits from increased data regarding PFAS in biosolids.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Test costs for PFAS analysis incurred by WWTPs in the range of $375-$750 per sample. Unable to estimate the total cost as it would depend on the number of samples analyzed.	(b) Indeterminate.
(3) Other Costs & Benefits (Non-Monetized)	Indeterminate direct and indirect benefits from increased data regarding PFAS in biosolids.	
(4) Assistance	None identified.	
(5) Information Sources	See Table 1a.	

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 and Indirect Costs:** Stakeholders such as utility rate payers may be subjected to rate increases due to the increase in direct costs to WWTPs, however, the Department is not able to estimate how costs will be passed on to stakeholders. **Direct and Indirect Benefits:** Stakeholders that may benefit by the regulatory change include the landowners who allow biosolids to be applied to their property and local residents in communities where biosolids are land applied. It is anticipated that the concentration-based management requirements will result in a reduction in the land application, marketing, and distribution of biosolids containing PFAS. An expected indirect benefit is the protection of human health and the environment, including public water supplies.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) Indeterminate.	(b) Indeterminate.
(3) Other Costs & Benefits (Non-Monetized)	None identified.	
(4) Information Sources	See Table 1a.	

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 and Indirect Costs:** No direct or indirect costs specific to small businesses have been identified as a result of this regulatory action. **Direct and Indirect Benefits:**

	No direct or indirect benefits specific to small businesses have been identified as a result of this regulatory action.	
(2) Present Monetized Values	Direct & Indirect Costs	Direct & Indirect Benefits
	(a) None identified.	(b) None identified.
(3) Other Costs & Benefits (Non-Monetized)	None identified.	
(4) Alternatives	None identified.	
(5) Information Sources	See Table 1a.	

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

9VAC25-31

VAC Section(s) Involved*	Authority of Change	Initial Count	Additions	Subtractions	Total Net Change in Requirements
9VAC25-31-465 (new section)	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	0	16	0	+16
	(D/R):	0	0	0	0
9VAC25-31-485	**(M/A):**	1	0	0	0
	(D/A):	0	0	0	0
	(M/R):	17	0	0	0
	(D/R):	0	0	0	0
9VAC25-31-490	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	2	0	0	0
	(D/R):	0	0	0	0
9VAC25-31-530	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	10	0	0	0
	(D/R):	0	0	0	0
9VAC25-31-540	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	1	0	0	0
	(D/R):	0	0	0	0
				Grand Total of Changes in Requirements:	**(M/A):** 0
					(D/A): 0
					(M/R): +16[A]
					(D/R): 0

9VAC25-32

VAC Section(s) Involved*	Authority of Change	Initial Count	Additions	Subtractions	Total Net Change in Requirements
9VAC25-32-313	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	11	0	0	0
	(D/R):	0	0	0	0
9VAC25-32-316 (new section)	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	0	16	0	+16
	(D/R):	0	0	0	0
9VAC25-32-356	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	2	0	0	0
	(D/R):	0	0	0	0
9VAC25-32-515	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	11	0	0	0
	(D/R):	0	0	0	0
9VAC25-32-570	**(M/A):**	0	0	0	0
	(D/A):	0	0	0	0
	(M/R):	8	0	0	0
	(D/R):	0	0	0	0
				Grand Total of Changes in Requirements:	**(M/A):** 0
					(D/A): 0
					(M/R): +16[A]
					(D/R): 0

[A] This regulatory amendment is in response to a change in state law where no agency discretion is involved. The change in state law and resulting regulatory amendment contain 16 new mandatory requirements affecting external parties. The VPDES Permit Regulation (9VAC25-31) and the VPA Permit Regulation (9VAC25-32) both contain the requirements for finished sewage sludge (biosolids) such that it is acceptable for land application, marketing, or distribution. The VPA Permit Regulation contains the requirements for biosolids activities where no discharge occurs, while the VPDES Permit Regulation governs treatment facilities that may prepare, market, distribute, or land apply biosolids. Currently, neither the VPA Permit Regulation nor the VPDES Permit Regulation address PFAS testing, reporting, or concentration-based management

requirements for biosolids. The statutory mandates of § 62.1-44.19:3 of the Code of Virginia, as amended by Chapters 853 and 854 of the 2026 Acts of Assembly, are being added to both regulations, such that the 16 new requirements affect both permit types equally and consistently. Sections 9VAC25-31-465 and 9VAC25-32-316 are being added as new sections to consolidate all PFAS requirements related to biosolids into a single location within each chapter. The rest of the amended sections do not contain unique new requirements, rather they reference the new sections (9VAC25-31-465 or 9VAC25-32-316, as appropriate) for clarity throughout the chapters.

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**
9VAC25-31-465	Requires owners of sewage treatment works to conduct testing for PFAS in sewage sludge beginning January 1, 2027; establishes concentration-based land application restrictions for PFOS and PFOA; mandates reporting of PFAS test results to the Department and affected landowners; and requires alternative treatment, use, or disposal when specified thresholds are exceeded.	Unknown.	Test costs for PFAS analysis incurred by WWTPs in the range of $375-$750 per sample; Other potential costs are unknown.	Indeterminate.
9VAC25-32-316	Same as above.	Unknown.	Same as above.	Indeterminate.

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
9VAC25-31-465	Requires owners of sewage treatment works to conduct testing for PFAS in sewage sludge beginning January 1, 2027; establishes concentration-based land application restrictions for PFOS and PFOA; mandates reporting of PFAS test results to the Department and affected landowners; and requires alternative treatment, use, or disposal when specified thresholds are exceeded.	Currently, neither the VPA Permit Regulation nor the VPDES Permit Regulation address PFAS testing, reporting, or concentration-based management requirements for treated sewage sludge (biosolids). The regulatory change is a new requirement for permittees regulated under the VPA Permit Regulation and the VPDES Permit Regulation.
9VAC25-32-316	Same as above.	Same as above.

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
N/A			

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