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Exempt Action: Final Regulation Agency Background Document

Agency name	State Water Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9 VAC 25-720
VAC Chapter title(s)	Water Quality Management Planning Regulation
Action title	Amendment to add sixteen new TMDL waste load allocations in the Potomac-Shenandoah River Basin (9VAC25-720-50.A), Roanoke River Basin (9VAC25-720-80.A), and York River Basin (9VAC25-720-120.A).
Final agency action date	December 14, 2021
Date this document prepared	December 9, 2021

Although a regulatory action may be exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 of the *Code of Virginia*, the agency is still encouraged to provide information to the public on the Regulatory Town Hall using this form. However, the agency may still be required to comply with the Virginia Register Act, Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1VAC7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The amendments to the state's Water Quality Management Planning Regulation (9 VAC 25-720) include adding one new TMDL waste load allocation in the Potomac-Shenandoah River Basin (9VAC25-720-50.A), two new TMDL waste load allocation in the Roanoke River Basin (9VAC25-720-80.A), and thirteen new TMDL waste load allocations in the York River Basin (9VAC25-720-120.A).

The TMDLs were developed in accordance with Federal Regulations (40 CFR § 130.7) and are exempt from the provisions of Article II of the Virginia Administrative Process Act. The TMDL reports were subject to the TMDL public participation process and the waste load allocations are adopted as part of 9 VAC 25-720 in accordance with Virginia's "Public Participation Procedures for Water Quality Management Planning".

Mandate and Impetus

Identify the mandate for this regulatory change and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, internal staff review, petition for rulemaking, periodic review, or board decision). "Mandate" is defined as "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Sections 305(b), 303(d), 106, 314 and 319 of the Federal Clean Water Act and section 62.1-44.19:5 C of the Virginia Water Quality Monitoring, Information and Restoration Act (Code of Virginia). When state waters are assessed to be impaired for one or more reasons, Total Maximum Daily Loads (TMDLs) or TMDL alternatives must be developed to determine the total amount of a pollutant that a waterbody can receive without resulting in the impaired status of that waterbody.

Acronyms and Definitions

Define all acronyms used in this form, and any technical terms that are not also defined in the "Definitions" section of the regulation.

Allocation: That portion of a receiving water's loading capacity that is attributed to one of its existing or future pollution sources (nonpoint or point) or to natural background sources.

Allocation Scenario: A proposed series of point and nonpoint source allocations (loadings from different sources), which are being considered to meet a water quality planning goal.

Background levels: Levels representing the chemical, physical, and biological conditions that would result from natural geomorphological processes such as weathering and dissolution.

Best Management Practices (BMP): Methods, measures, or practices that are determined to be reasonable and cost-effective means for a land owner to meet certain, generally nonpoint source, pollution control needs. BMPs include structural and nonstructural controls and operation and maintenance procedures.

Calibration: The process of adjusting model parameters within physically defensible ranges until the resulting predictions give a best possible good fit to observed data.

Direct nonpoint sources: Sources of pollution that are defined statutorily (by law) as nonpoint sources that are represented in the model as point source loadings due to limitations of the model. Examples include: direct deposits of fecal material to streams from livestock and wildlife.

Failing septic system: Septic systems in which drain fields have failed such that effluent (wastewater) that is supposed to percolate into the soil, now rises to the surface and ponds on the surface where it can flow over the soil surface to streams or contribute pollutants to the surface where they can be lost during storm runoff events.

HSPF (Hydrological Simulation Program-Fortran): A computer-based model that calculates runoff, sediment yield, and fate and transport of various pollutants to the stream. The model was developed under the direction of the U.S. Environmental Protection Agency (EPA).

Hydrology: The study of the distribution, properties, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere.

Instantaneous or Single Sample criterion: The instantaneous criterion or instantaneous water quality standard is the value of the water quality standard that should not be exceeded at any time. For example, the Virginia instantaneous water quality standard for *E. coli* is 235 cfu/100 mL. If this value is exceeded at any time, the water body is in violation of the state water quality standard.

Load allocation (LA): The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background.

Margin of Safety (MOS): A required component of the TMDL that accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving waterbody. The MOS is normally incorporated into the conservative assumptions used to develop TMDLs (generally within the calculations or models).

Model: Mathematical representation of hydrologic and water quality processes. Effects of land use, slope, soil characteristics, and management practices are included.

Nonpoint source: Pollution that is not released through pipes but rather originates from multiple sources over a relatively large area. Nonpoint sources can be divided into source activities related to either land or water use including failing septic tanks, improper animal-keeping practices, forest practices, and urban and rural runoff.

Pathogen: Disease-causing agent, especially microorganisms such as bacteria, protozoa, and viruses.

Point source: Pollutant loads discharged at a specific location from pipes, outfalls, and conveyance channels from either municipal wastewater treatment plants or industrial waste treatment facilities. Point sources can also include pollutant loads contributed by tributaries to the main receiving water stream or river.

Pollution: Generally, the presence of matter or energy whose nature, location, or quantity produces undesired environmental effects. Under the Clean Water Act for example, the term is defined as the man-made or man-induced alteration of the physical, biological, chemical, and radiological integrity of water.

Reach: Segment of a stream or river.

Runoff: That part of rainfall or snowmelt that runs off the land into streams or other surface water. It can carry pollutants from the air and land into receiving waters.

Septic system: An on-site system designed to treat and dispose of domestic sewage. A typical septic system consists of a tank that receives liquid and solid wastes from a residence or business and a drain field or subsurface absorption system consisting of a series of tile or percolation lines for disposal of the liquid effluent. Solids (sludge) that remain after decomposition by bacteria in the tank must be pumped out periodically.

Simulation: The use of mathematical models to approximate the observed behavior of a natural water system in response to a specific known set of input and forcing conditions. Models that have been validated, or verified, are then used to predict the response of a natural water system to changes in the input or forcing conditions.

Straight pipe: Delivers wastewater directly from a building, e.g., house, milking parlor, to a stream, pond, lake, or river.

Total Maximum Daily Load (TMDL): The sum of the individual wasteload allocations (WLA's) for point sources, load allocations (LA's) for nonpoint sources and natural background, plus a margin of safety (MOS). TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a state's water quality standard.

Urban Runoff: Surface runoff originating from an urban drainage area including streets, parking lots, and rooftops.

Validation (of a model): Process of determining how well the mathematical model’s computer representation describes the actual behavior of the physical process under investigation. This follows the calibration of the model and ensures that the calibrated values adequately represent the watershed.

VPDES: Virginia Pollution Discharge Elimination System. VPDES permits are given to all point source discharges to surface waters, dischargers of stormwater from Municipal Separate Storm Sewer Systems (MS4s), and dischargers of stormwater from Industrial Activities.

Wasteload allocation (WLA): The portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.

Water quality standard: Law or regulation that consists of the beneficial designated use or uses of a water body, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular water body, and an anti-degradation statement.

Watershed: A drainage area or basin in which all land and water areas drain or flow toward a central collector such as a stream, river, or lake at a lower elevation.

Statement of Final Agency Action

Provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

At its meeting on December 14, 2021 the State Water Control Board adopted the amendments to the Water Quality Management Planning Regulation (9 VAC 25-720 et seq.).

Legal Basis

Identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity’s overall regulatory authority.

The Clean Water Act (“CWA”) and the U.S. EPA Water Quality Management and Planning Regulation (40 CFR §130) require states to identify waters that are in violation of water quality standards and to place these waters on the state’s 303(d) List of Impaired Waters. Also, the CWA and EPA’s enabling regulation require that a TMDL be developed for those waters identified as impaired. In addition, the Code of Virginia, §62.1-44.19:7.C requires the State Water Control Board (“the Board”) to develop TMDLs for impaired waters. A TMDL is a determination of the amount of a specific pollutant that a water body is capable of receiving without violating water quality standards for that pollutant. TMDLs are required to identify all sources of the pollutant and calculate the pollutant loads from each source that are necessary for the attainment of water quality standards.

Every TMDL consists of three basic components. They are the point source component called the wasteload allocation (“WLA”), the nonpoint source component called the load allocation (“LA”), and the margin of safety component (“MOS”). The TMDL is equal to the sum of these three components.

The U.S. EPA’s Water Quality Management and Planning Regulation 40 CFR §130.7(d) (2) directs the states to incorporate TMDLs in the state’s Water Quality Management Plan. Also, U.S. EPA’s Water Quality Management and Planning Regulation 40 CFR §122.44(d) (1) (vii) (B) requires that new or

reissued VPDES permits be consistent with the TMDL WLA. This means that the WLA component of the TMDL will be implemented through the requirements specified in the VPDES permits, for example through numeric water quality based effluent limitations or in certain cases best management practices (“BMPs”). Virginia implements the LA component using existing voluntary, incentive and regulatory programs such as the Virginia Agricultural Cost-Share Program and Federal Section 319(h) TMDL implementation funding. Specific management actions addressing the LA component are compiled in a TMDL implementation plan (“TMDL IP”).

The State Water Control Board has adopted this regulation to meet the requirements described above.

Public Comment

Summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. Ensure to include all comments submitted: including any received on Town Hall, in a public hearing, or submitted directly to the agency or board. If no comment was received, enter a specific statement to that effect.

The comment period for the regulation amendment with the TMDL waste load allocations extended from October 11 – November 10, 2021. No comments were received.

Detail of All Changes Proposed in this Regulatory Action

*List all changes proposed in this exempt action and the rationale for the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. *Please put an asterisk next to any substantive changes.*

The amendments to the state’s Water Quality Management Planning Regulation (9 VAC 25-720) include adding one new TMDL waste load allocation in the Potomac-Shenandoah River Basin (9VAC25-720-50.A), two new TMDL waste load allocation in the Roanoke River Basin (9VAC25-720-80.A), and thirteen new TMDL waste load allocations in the York River Basin (9VAC25-720-120.A). These new TMDL waste load allocations will be implemented in VPDES permits.

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
50.A		Potomac-Shenandoah River Basin Water Quality Management Plan	Adding one new TMDL waste load allocation in the Potomac-Shenandoah River Basin
80.A		Roanoke River Basin Water Quality Management Plan	Adopting two new TMDL waste load allocations in the Roanoke River Basin.
120.A		York River Basin Water Quality Management Plan	Adopting thirteen new TMDL waste load allocations in the York River Basin.

Family Impact

In accordance with § 2.2-606 of the Code of Virginia, please assess the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one’s spouse, and one’s children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The amendment of the Water Quality Management Planning Regulation is for the protection of public health, safety, and welfare and the Board does not anticipate any direct impact on the institution of the family and family stability.