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Notice of Intended Regulatory Action (NOIRA) Agency Background Document

Agency name	Virginia Soil and Water Conservation Board
Virginia Administrative Code (VAC) Chapter citation(s)	4 VAC50-20
VAC Chapter title(s)	Impounding Structure Regulations
Action title	Amend provisions of the regulations to improve clarity and enhance consistency
Date this document prepared	June 17, 2026

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), 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 the subject matter, intent, and goals of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation).

The Virginia Soil and Water Conservation Board intends to amend portions of 4VAC50-20, Impounding Structure Regulations, to improve regulatory clarity, enhance consistency in implementation, and align certain provisions with current engineering practices. This regulatory action will focus on revisions to definitions used to determine maximum impounding capacity, updating hazard potential classification criteria and the definition of significant hazard potential, revising the methodology used for conducting incremental damage analysis, establishing minimum design standards for dam decommissioning projects, and updating the emergency action plan requirements for high and significant hazard potential dams.

The intent of this regulatory action is to ensure that impounding structures are classified and regulated based on current risk assessment practices and clearly defined criteria, while providing dam owners and engineers with more consistent and predictable regulatory requirements. The amendments are expected to improve public safety by supporting more accurate evaluation of potential downstream consequences

associated with dam failures, establishing design standards for dam decommissioning activities, and improving the effectiveness and usability of emergency action plans for high and significant hazard potential impounding structures.

Acronyms and Definitions

Define all acronyms or technical definitions used in this form.

"Board" means the Soil and Water Conservation Board.

"Dam Safety Act" means Article 2 (§ 10.1-604 et seq.) of Chapter 6 of Title 10.1 of the Code of Virginia.

"Regulation" means the Regulations governing Impounding Structures under Authority of the Dam Safety Act (4VAC50-20).

"Impounding structure" means a man-made structure, whether a dam across a watercourse or other structure outside a watercourse, used or to be used to retain or store waters or other materials. The term includes: (i) all dams that are twenty-five feet or greater in height and that create an impoundment capacity of fifteen acre-feet or greater, and (ii) all dams that are six feet or greater in height and that create an impoundment capacity of fifty acre-feet or greater. The term "impounding structure" shall not include: (a) dams licensed by the State Corporation Commission that are subject to a safety inspection program; (b) dams owned or licensed by the United States government; (c) dams operated primarily for agricultural purposes which are less than twenty-five feet in height or which create a maximum impoundment capacity smaller than 100 acre-feet; (d) water or silt retaining dams approved pursuant to §45.2-618 or 45.2-1301; or (e) obstructions in a canal used to raise or lower water.

"Annual average daily traffic" or "AADT" means the total volume of vehicle traffic of a highway or road for a year divided by 365 days and is a measure used in transportation planning and transportation engineering of how busy a road is.

"Emergency Action Plan" or "EAP" means a formal document that recognizes potential impounding structure emergency conditions and specifies preplanned actions to be followed to minimize loss of life and property damage. The EAP specifies actions the owner must take to minimize or alleviate emergency conditions at the impounding structure. It contains procedures and information to assist the owner in issuing early warning and notification messages to responsible emergency management authorities. It also contains the results of inundation analyses conducted pursuant to 4VAC50-20-54.

"Maximum impounding capacity" means the volume of water or other materials in acre-feet that is capable of being impounded at the top of the impounding structure.

Hazard potential classifications of impounding structures are as follows:

1. High hazard potential is defined where an impounding structure failure will cause probable loss of life or serious economic damage. "Probable loss of life" means that impacts will occur that are likely to cause a loss of human life, including impacts to residences, businesses, other occupied structures, or major roadways. Economic damage may occur to, but not be limited to, buildings, industrial or commercial facilities, public utilities, major roadways, railroads, personal property, and agricultural interests. "Major roadways" include interstates, primary highways, high-volume urban streets, or other high-volume roadways, except those having an AADT volume of 400 vehicles or less in accordance with 4VAC50-20-45.

2. Significant hazard potential is defined where an impounding structure failure may cause the loss of life or appreciable economic damage. "May cause loss of life" means that impacts will occur that could cause a loss of human life, including impacts to facilities that are frequently utilized by humans other than residences, businesses, or other occupied structures, or to secondary roadways. Economic damage may

occur to, but not be limited to, buildings, industrial or commercial facilities, public utilities, secondary roadways, railroads, personal property, and agricultural interests. "Secondary roadways" include secondary highways, low-volume urban streets, service roads, or other low-volume roadways, except those having an AADT volume of 400 vehicles or less in accordance with 4VAC50-20-45.

3. Low hazard potential is defined where an impounding structure failure would result in no expected loss of life and would cause no more than minimal economic damage. "No expected loss of life" means no loss of human life is anticipated.

"ACER-11" refers to the United States Department of Interior, Bureau of Reclamation's ACER Technical Memorandum No. 11, Downstream Hazard Classification Guidelines, December 1988.

"Incremental Damage Analysis" is the process of reducing either the hazard classification or spillway conveyance requirement for the dam by separating the dam breach impacts from the impacts of the storm event.

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, petition for rulemaking, periodic review, or board decision). For purposes of executive branch review, "mandate" has the same meaning as defined in the ORM procedures, "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."

This regulatory action is being initiated to address priority issues with the regulations, including several issues that were unable to be fully addressed during the previous regulatory action (2024-2025). The Board continues to strive to ensure the Dam Safety Act and regulations are implemented consistently across the state and to balance the risk dams may pose to public safety with the financial responsibilities of the dam owner.

Legal Basis

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

The Dam Safety Act is established in §10.1-604 et seq. of the Code of Virginia. The Virginia Soil and Water Conservation Board is designated as the promulgating regulatory authority in §10.1-605. Section 10.1-605 of the Code of Virginia requires the Board to "adopt regulations to ensure that impounding structures in the Commonwealth are properly and safely constructed, maintained, and operated". Section 10.1-604.1 authorizes the Board to adopt "regulations in accordance with §10.1-605 to establish a simplified methodology for dam break inundation zone analysis.

Section 10.1-605.1 authorizes the Board to delegate to the Director or his designee any of the powers and duties vested in the Board by the article, except the adoption and promulgation of regulations. In §10.1-605.2, the Board is required to adopt regulations that consider the impact of downstream limited-use or private roadways with low traffic volume and low public safety risk on the determination of the hazard potential classification of an impounding structure.

At the June 17, 2026 meeting, the Virginia Soil and Water Conservation Board approved the initiation of revisions to definitions used to determine maximum impounding capacity, updating hazard potential classification criteria and the definition of significant hazard potential, revising the methodology used for conducting incremental damage analysis, establishing minimum design standards for dam decommissioning projects, and updating the emergency action plan requirements for high and significant hazard potential dams.

Purpose

Describe the specific reasons why the agency has determined that this regulation is essential to protect the health, safety, or welfare of citizens. In addition, explain any potential issues that may need to be addressed as the regulation is developed.

As outlined in the section above, the adoption of these regulations is required in several sections of the Code of Virginia. These regulations protect public safety by establishing the appropriate construction, operation, and maintenance standards for impounding structures regulated by the Board.

The current regulations contain provisions that have resulted in inconsistent interpretation and application regarding the determination of maximum impounding capacity, hazard potential classification, and incremental damage analysis methodology. In addition, the regulations do not currently establish minimum design standards for dam decommissioning projects, which can be utilized as a risk reduction strategy and as a mechanism to comply with the Act and regulations. Revisions to these items will improve the technical basis for regulatory decisions, establish minimum standards for dam decommissioning projects, and enhance emergency preparedness through improved alignment of emergency action plan requirements.

Substance

Briefly identify and explain the new substantive provisions that are being considered, the substantive changes to existing sections that are being considered, or both.

This regulatory action will focus on revisions to definitions used to determine maximum impounding capacity, updating hazard potential classification criteria and the definition of significant hazard potential, revising the methodology used for conducting incremental damage analysis, establishing minimum design standards for dam decommissioning projects, and updating the emergency action plan requirements for high and significant hazard potential dams.

Revisions will be made to section 4VAC50-20-30 (Definitions) related to maximum impounding capacity. Section 4VAC50-20-40 (Hazard potential classifications of impounding structures) will be revised to provide clarification on the definition of significant hazard potential and what should be considered when determining hazard potential classification. Additional criteria to be considered during this regulatory action include serious economic damage, appreciable economic damage, major rail lines, minor rail lines, and the potential impacts to single-access roadways serving residential structures.

Revisions are anticipated to 4VAC50-20-52 (Incremental damage analysis) to update the methodologies and thresholds used in the analysis to ensure the results are supported by current engineering practices.

New standards related to dam decommissioning will be established including the minimum requirements for partial breach and notching configurations and design criteria involving roadway embankments, including provisions related to permanent pool elimination and minimum drainage infrastructure requirements.

Finally, amendments to section 4VAC50-20-175 (Emergency Action Plan (EAP) for high and significant hazard potential impounding structures) to revise emergency action plan requirements for high and significant hazard potential impounding structures. Amendments will improve the effectiveness and usability of emergency action plans for these impounding structures.

Alternatives to Regulation

Describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

There are no functional alternatives to amending these regulations. The Board is unable to address these issues through the issuance of guidance documents or other similar mechanisms. Amending the regulations will strengthen the Dam Safety Program and ensure the safety of both the regulated impounding structure and the public.

Periodic Review and Small Business Impact Review Announcement

If you wish to use this regulatory action to conduct, and this NOIRA to announce, a periodic review (pursuant to § 2.2-4017 of the Code of Virginia and the ORM procedures), and a small business impact review (§ 2.2-4007.1 of the Code of Virginia) of this regulation, keep the following text. Modify it as necessary for your agency. Otherwise, delete the paragraph below and insert "This NOIRA is not being used to announce a periodic review or a small business impact review."

This NOIRA is not being used to announce a periodic review or a small business impact review.

Public Participation

Indicate how the public should contact the agency to submit comments on this regulation, and whether a public hearing will be held, by completing the text below. In addition, as required by § 2.2-4007.02 of the Code of Virginia, describe any other means that will be used to identify and notify interested parties and seek their input, such as regulatory advisory panels or general notices.

The Virginia Soil and Water Conservation Board is providing an opportunity for comments on this regulatory proposal, including but not limited to (i) the costs and benefits of the regulatory proposal, (ii) any alternative approaches, and (iii) the potential impacts of the regulation.

Anyone wishing to submit written comments for the public comment file may do so through the Public Comment Forums feature of the Virginia Regulatory Town Hall web site at: <https://townhall.virginia.gov>. Comments may also be submitted by mail, email or fax to:

Christine Watlington Jones
Policy and District Services Manager
Virginia Department of Conservation and Recreation
600 E. Main Street, 24th Floor

Richmond, VA 23219
Email: Christine.Watlington@dcr.virginia.gov

In order to be considered, comments must be received by 11:59 pm on the last day of the public comment period.

A public hearing will not be held following the publication of the proposed stage of this regulatory action.

A regulatory advisory panel will be appointed to assist with this regulatory action. Persons interested in assisting in the development of a proposal should notify Christine Watlington Jones by the end of the comment period and provide their name, address, phone number, email address and the organization represented (if any).