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Periodic Review Report of Findings

Agency name	Virginia Soil and Water Conservation Board
Virginia Administrative Code (VAC) citation	4VAC50-20
Regulation title	Impounding Structure Regulations
Date this document prepared	December 5, 2018

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Acronyms and Definitions

Please define all acronyms used in this Report. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.

The following acronyms are used in this document and are defined in 4VAC50-20-30 of the Impounding Structure Regulations:

1. EAP means an emergency action plan.
2. PEOR means the professional engineer of record.
3. PMP means the probable maximum precipitation.
4. SDF means the spillway design flood.
5. VDEM means the Virginia Department of Emergency Management.

Legal Basis

Please 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 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. Section 10.1-605.3 allows the Board to develop a general permit for the regulations of low hazard potential impounding structures in accordance with §10.1-605.

Alternatives

Please describe any viable alternatives for achieving the purpose of the regulation that were considered as part of the periodic review. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving its purpose.

There are no alternatives to adopting regulations to implement the Dam Safety Act (§10.1-604 et seq.). 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". Additionally, §§10.1-605.2 and 10.1-605.3 either require or allow the Board to adopt regulations to address certain issues that may impact impounding structures.

Public Comment

Please summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency response. Ensure to include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency or board. Please indicate if an informal advisory group was formed for purposes of assisting in the periodic review.

Commenter	Comment	Agency response
Richard Dodson, President, Walden 10 Home Owners Association	Modify the regulations to recognize the difference in the magnitude of property damage and/or loss of life: <ol style="list-style-type: none"> 1. Add additional categories within the high hazard classification that realistically take in account the risk to property and life. 2. Add additional dam classifications, beyond the present three, taking into account the size of the lakes and their obvious differences in potential risks to loss of life and of property damage. 	Prior to 2008, the regulations utilized size of the dam and the volume of the lake as a factor to determine the appropriate hazard classification. During the regulatory process that established the current hazard potential classification categories, there was significant discussions regarding the impacts of size of the dam and the volume of the lake on the classification. It was determined that the hazard potential classifications should be determined solely by the potential downstream impacts. There are numerous dams that are large in size or large in volume that will cause no damage downstream and are therefore classified as low hazard. Similarly, there are many dams that are small in height or volume and will lead to a loss of life because of their location and

		downstream development. The Board has determined that hazard classifications should be determined solely by the potential downstream impacts and maintains that determination.
Shaikh Rahman, Dominion Energy	Relax the requirement for removing all woody vegetation from the dam and within 25 feet of the dam for existing dams. This could be relaxed to 10 feet from the toe of the dam.	This requirement is established in §10.1-609.2 of the Code of Virginia; it is outside the scope of a regulatory action to amend this requirement.
Shaikh Rahman, Dominion Energy	The existing definition of hydraulic height of a dam is sometimes not quite applicable. For example, a 10 foot tall dam constructed on top of a 10H:1V fill slope. The height of the foundation fill slope from the dam toe to the nearest stream is about 100 feet. According to the existing definition, the hydraulic height of the dam is 110 feet, but in reality it is only 10 feet tall.	This definition is established in §10.1-604 of the Code of Virginia. The height is defined as "the structural height of a dam which is defined as the vertical distance from the natural bed of the stream or watercourse measured at the downstream toe of the dam to the top of the dam. As this definition is established in the Code, it is outside the scope of a regulatory action to amend the definition.
Robert Kline, Gannett Fleming, Inc.	There have been differing interpretations as to whether an alteration permit expires and must be extended during an on-going alteration project. The state should consider requiring that an alteration permit be effective throughout the duration of construction and completion of all closeout activities specified in 4VAC50-20-80. The state should require the impounding structure owner to submit a letter describing the changes to the construction sequence and milestones that necessitate an alteration permit extension in order to request a new alteration permit. This request would not require any fees or significant effort, and the extended alteration permit would provide reassurance to the public, owner, and contractor that the state has approved of the on-going work at the impounding structure.	The Board and Department have been working with the Regional Dam Safety Engineers to standardize interpretations, processes, and policies across the state. There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Robert Kline, Gannett Fleming, Inc.	The state should consider adopting a new written policy including a succinct and streamlined permit for subsurface investigations at dams. This policy should include minimum qualifications for drilling contractors. This drilling permit would reduce the economic burden of addressing irrelevant requirements in 4VAC50-20-80 while improving the protection of public safety. A similar program was introduced to FERC-regulated impounding structures in 2017.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Robert Kline, Gannett Fleming, Inc.	Consider clarifying if the regulations (4VAC50-20-45) are referring to all roads downstream of the impounding structure or if "below an impounding structure" refers to a roadway located on or adjacent to the toe of the impounding structure.	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address

		roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.
Robert Kline, Gannett Fleming, Inc.	Consider adding guidance or regulations regarding professional engineer qualifications for dam safety inspections, such as a minimum number of cumulative years in dam engineering. Federal agencies, such as FERC, impose similar requirements for dam inspectors.	The Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects examines, licenses, and regulates professional engineers. The Virginia Soil and Water Conservation Board does not have authority to determine eligibility requirements for professional engineers, nor can the Board place limitations on when a professional engineer works on a project.
Brett L. Martin, GKY	Roadways on top of dams should be excluded from the Virginia Impounding Structure hazard potential classification process.	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.
Brett L. Martin, GKY	The internal development of guidance documents does not provide the opportunity for the professional community to offer DCR reasonably available alternatives for consideration.	Chapter 820 of the 2018 General Assembly Acts of Assembly requires a 30-day public comment period when an agency develops a guidance document. This will allow additional public comment opportunities on guidance documents that are presented to the Board.
Brett L. Martin, GKY	ACER-11 should be an allowable methodology to determine whether roads and property have been impacted in 4VAC50-20-52(B).	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.
Steve Pandish and Kelsey Ryan, Gordon Engineering	If the standard is "worst case hydrologic/hydraulic scenario", we request that this be clearly stated and defined in the regulations. We believe "worst case" should be defined as the combination of hydrologic/hydraulic modeling that impacts the most properties and has the highest hazard classification. The PEOR should describe why the modeling submitted is the "worst case" qualitatively. We	At their September meeting, the Board removed language related to the "worst case scenario" in the <i>Dam Break Inundation Zone Modeling and Mapping Procedures</i> guidance document to clarify the intent of the requirements and to reduce confusion about the expected standard. As this statement has been removed from the guidance document and is not found elsewhere, this issue has been addressed.

	believe "reasonably possible" should be defined as the hydrologic/hydraulic that utilizes standard engineering practice for determining watershed hydrology and hydraulics. Again the PEOR should describe why the modeling is "reasonably possible" qualitatively.	
Steve Pandish and Kelsey Ryan, Gordon Engineering	When changes are made to regulations or guidance documents, we request that the revised document be published with a strike-through for deleted text and highlighted/bold for added text.	Chapter 820 of the 2018 General Assembly Acts of Assembly requires a 30-day public comment period when an agency develops a guidance document. This will allow additional public comment opportunities on guidance documents that are presented to the Board. Documents that are presented for public comment will include strike-throughs and underlines. All regulatory amendments will follow the requirements established in the Administrative Process Act and other applicable procedures.
Mary F. Martin	We recommend that more classifications or additional exemption criteria to the current classifications could more fairly address the situation of small dams/small ponds in low-density areas with one small secondary roadway and ample downstream farm land to absorb runoff.	Prior to 2008, the regulations utilized size of the dam and the volume of the lake as a factor to determine the appropriate hazard classification. During the regulatory process that established the current hazard potential classification categories, there was significant discussions regarding the impacts of size of the dam and the volume of the lake on the classification. It was determined that the hazard potential classifications should be determined solely by the potential downstream impacts. There are numerous dams that are large in size or large in volume that will cause no damage downstream and are therefore classified as low hazard. Similarly, there are many dams that are small in height or volume and will lead to a loss of life because of their location and downstream development. The Board has determined that hazard classifications should be determined solely by the potential downstream impacts and maintains that determination.
Mary F. Martin	The current regulations discourage the implementation of safety improvements by demanding repetitive engineering inspections, analyses, and filings which are costly and deplete the resources of a small neighborhood, leaving little ability to pay for upgrades.	The Board recognizes the financial resources that are necessary to meet the Dam Safety Act and its attendant regulations. Every year, the General Assembly provides funding for the Dam Safety, Flood Prevention, and Protection Assistance Fund. This Fund provides matching funds to dam owners for necessary engineering studies.
Mary F. Martin	The regulations do not consider that older dams (vintage 1960s) may have been approved by county permitting authorities without adequate supervision or engineering rigor, leaving current residents unfairly facing enormous bills to bring these dams into compliance without state or county assistance. The regulations should be amended to provide relief and consideration to homeowners faced with correcting deficiencies that exist due to inadequate government oversight at the time of construction.	The Board recognizes the financial resources that are necessary to meet the Dam Safety Act and its attendant regulations. Every year, the General Assembly provides funding for the Dam Safety, Flood Prevention, and Protection Assistance Fund. This Fund provides matching funds to dam owners for necessary engineering studies. The Board works with dam owners who are trying to bring their dams into compliance in recognition of the financial resources needed to upgrade dams. There have been several grandfathering provisions, both regulatory and statutory, that have extended effective dates for certain provisions related to required upgrades.

<p>Mary F. Martin</p>	<p>The regulations should be amended to allow for gradual improvements over time to more realistically address the ability of a small neighborhood to pay for massive construction projects.</p>	<p>The Board works with dam owners who are trying to bring their dams into compliance in recognition of the financial resources needed to upgrade dams. There have been several grandfathering provisions, both regulatory and statutory, that have extended effective dates for certain provisions related to required upgrades.</p>
<p>Jim Elarsen</p>	<p>Look at information mapping: faster and easier to build documents and to retrieve information.</p>	<p>With the development of the Dam Safety Information System (DSIS), information on dams is readily available. The information, including mapping components, is uploaded to DSIS by the dam owner or the dam owner's engineer. The information is accessible by emergency management personnel, local governments, and the public.</p>
<p>James W. Patteson, Fairfax County</p>	<p>Section 4VAC50-20-53 – add language to clarify that only the incremental losses resulting from a dam failure i.e., the difference between losses with and without a dam failure, need to be considered for insurance valuation. In order to clearly avoid any misinterpretation of the statement above, additional clarification should be provided in the regulations and guidance documents.</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>James W. Patteson, Fairfax County</p>	<p>Sections 4VAC50-20-50C and 4VAC50-20-240C –Recommend adding language to eliminate the use of criteria that is not consistent or does not accurately or appropriately reflect modeled conditions.</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>James W. Patteson, Fairfax County</p>	<p>4VAC50-20-54-E-1 – recommend that language be added to allow jurisdictions that have regulated floodplains to terminate the breach once it enters a mapped floodplain if the dam owner can show that there are no structures in the downstream floodplain that could potentially be impacted by a sunny day breach.</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>James W. Patteson, Fairfax County</p>	<p>Guidance document on dam break inundation zone modeling and mapping procedures: recommend that language be added that requires the same storm duration event be used to analyze the dam and downstream watershed inflows; guidance document be updated to allow procedures developed by the National Weather Service for obtaining aerial precipitation values for a given duration and return period.</p>	<p>As this comment references clarification to a guidance document, it is outside the scope of this periodic review and amendments to the regulations. However, the Board will consider this recommendation when the guidance document is next reviewed.</p>
<p>James W. Patteson, Fairfax County</p>	<p>We recommend language and specific terminology be added to the regulations or guidance documents that clearly differentiate what procedures can be used to lower the potential</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues</p>

	hazard classification of an impounding structure and what can be used to lower the SDF once the hazard class is established.	with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.
James W. Patteson, Fairfax County	We recommend defining the terms "should", "may", "shall", and "must". This will ensure the DCR regional dam safety engineers and Professional Engineers of Record have a common understanding of these terms and allow clear differentiation between mandatory and discretionary requirements.	The Board and Department have been working with the Regional Dam Safety Engineers to standardize interpretations, processes, and policies across the state. The Board will continue to work to clearly differentiate between requirements of the regulations and optional processes or procedures set out in guidance documents.
Don Rissmeyer, AMT Engineering	The regulations currently include references to both PMF and PMP creating some confusion especially in applying Table 1 (See below). Suggest choosing and using PMP throughout the regulations and to be consistent, including using .05PMP for the spillway design flood in the table below. In the case of high hazard dams full PMF equates to full PMP anyway.	While the PMP values and PMF values are similar for high hazard dams, there is more variation between the PMP and PMF values utilized for a significant hazard potential dam. As the PMF provides an additional factor of safety, the Board maintains the value of utilizing the PMF for determining the spillway design flood.
Don Rissmeyer, AMT Engineering	I don't like footnote E, or the option to use an IDA study on a low hazard dam. Would suggest considering that Incremental Damage Assessments for low hazard dams were "N/A" with the reasoning in Footnote E, per Table 1 above.	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.
Don Rissmeyer, AMT Engineering	I would remove the November 2015 date of the PMP study from Footnote C, and consider amending this footnote to also cite the temporal distributions for PMP storms that DCR recently released for public use.	In order to ensure regulatory stability, the Board is required to include a date for all design and performance standards. Therefore, the date of the PMP study, because it includes specific calculations and data sources, must be included in the regulation.
Don Rissmeyer, AMT Engineering	In 4VAC50-20-51 (2), the use of a 50-year storm for the SDF seems like it could be a 100-year storm instead.	Section 10.1-605 establishes a minimum threshold of the 50-year flood event for low hazard potential dams when utilizing an incremental damage analysis. As this threshold is established in the Code, it is outside the scope of a regulatory action to amend the definition.
Don Rissmeyer, AMT Engineering	Does 4VAC50-20-52 Incremental Damage Analysis intend to allow a lowering of the hazard class based on the IDA (as written) or is the IDA only able to reduce the spillway design flood (SDF)? Given the presentation in Table 1, and my experience, I'm unclear about the IDA lowering a	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for

	<p>hazard class. For example, if a downstream roadway is under 10' of water, without considering the impacts from a dam upstream, it would be eligible for an IDA lowering of the SDF. It would also still be a high hazard situation since the dam would also inundate the roadway from a Sunny Day Breach and changing the hazard class would be possible.</p>	<p>hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>For 4VAC50-20-53, Condition #7, DCR has issued guidance on the calculation of losses related to downstream infrastructure that generally are bounded between the .6 and .9 PMP. Some thought and revision to this permit condition would be helpful to reflect that recent guidance.</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>For 4VAC50-20-53, Condition #2, the table top exercises that are required every two years are becoming repetitive and occupy significant time commitments from local emergency responders, security and police personnel, DCR/VDEM staffers, and others in the EAP. Consider making this requirement to be twice within each operation and maintenance permit cycle (or once every 3 years).</p>	<p>This requirement is established in §10.1-605 of the Code of Virginia; it is outside the scope of a regulatory action to amend this requirement.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>4VAC50-20-54 (E.4) – since the full PMF isn't required anymore for even high hazard dams, consider making inundation zone maps depict the "0.9 PMP with failure" instead of the "PMF with failure".</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>4VAC50-20-54 (F) – Suggest clarifying that the 4 events listed above in Part E for determining hazard class, should also be shown on the inundation zone maps, instead of listing them again in this section. Just cite the storms as listed in E.</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>4VAC50-20-54 (F.1) – Consider requiring the dam owner to list "addresses" instead of "occupants" as currently stated.</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>Don Rissmeyer, AMT Engineering</p>	<p>4VAC50-20-58 – Consider changing the word "provide" to "make available".</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and</p>

		commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	VAC50-20-60 (B) – Consider changing the word “temporary” to “emergency”.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-70 (E.4) - consider adding permit fees to the list for completeness of a permit application since DCR has a separate form and cite later sections of the regulations that talk about fees.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-70 (K) – consider citing a 6” maximum per 24 hours, for the raising or lowering any impoundment’s pool volume in this section.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-80 – Compare and update as necessary to reflect changes to 4VAC50-20-70 and to be consistent between new construction and alteration requirements in the program for construction permits.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-105 (B) – Change “90 days prior” to “at least 90 days prior”.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-125 – I believe this section can be repealed now.	The Board concurs and will initiate a regulatory action to address the repeal of this section.
Don Rissmeyer, AMT Engineering	4VAC50-20-260 – Would prefer a reference to the other section of the impounding structure regulations that cites 25’ for woody vegetation rather than just limiting it to the emergency spillway area as currently written.	There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.
Don Rissmeyer, AMT Engineering	4VAC50-20-270 (F) – Change the word “gates” to “regulating spillways and outlets” to be clear what types of gates we are referring to. This comment also applies to Section G.	The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.

<p>Don Rissmeyer, AMT Engineering</p>	<p>4VAC50-20-310 – Plans should also be required to be signed by a licensed professional engineer with a reference to the appropriate section of the code.</p>	<p>There are several priority issues that the Board wishes to address through at least one regulatory action. However, the Board recognizes that additional issues and clarifications in other sections of the regulations may remain and commits to addressing those issues in a potential second round of regulatory actions.</p>
<p>Martha Moore, Virginia Farm Bureau Federation</p>	<p>It is imperative that the agriculture exemption be maintained and clarified.</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>Martha Moore, Virginia Farm Bureau Federation</p>	<p>The construction of the language defining agricultural purpose may be limiting in scope to requirements to produce an agricultural commodity as referenced in §3.2-3900 of the Code of Virginia. We don't believe that this definition should be limited in its interpretation to preclude the use of the impoundment as part of a conservation measure.</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>Martha Moore, Virginia Farm Bureau Federation</p>	<p>Also concerned about the possible interpretation of the regulations and guidance for a farmer trying to repair such a dam that they may fall under these regulations as an "alteration". It is not clear what routine maintenance includes as there is no definition or parameters to differentiate alteration from routine maintenance.</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be discussed with stakeholders as part of the future regulatory process.</p>
<p>Mark D. Simms, Toll Brothers, Inc.</p>	<p>Requirement for proof of a low-level drain is neither in the regulations or guidance clearly spelled out. What is deemed "practicable" when retrofitting a dam?</p>	<p>The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the Spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams. This comment will be</p>

		discussed with stakeholders as part of the future regulatory process.
Mark D. Simms, Toll Brothers, Inc.	There are problems with how the inundation mapping is used; these need to be made available to the local zoning and planning authorities. Despite having those inundation lines, single residences have been constructed in the inundation zones. Residences in the inundation zone likely trigger a high hazard classification and this in turn may trigger the need for an upgrade of dam or spillway and the owner of the dam has no recourse at all.	Section 10.1-606.3 sets out the requirements related to development in the dam break inundation zone. That section references requirements set out in §15.2-2260 related to locality approval of preliminary subdivision plats and §15.2-2259 related to review of a proposed plat. While the Board recognizes the impact the construction of a single home may have on the hazard potential classification of a dam, the law would need to be amended to address this impact.

Effectiveness

Pursuant to § 2.2-4017, please indicate whether the regulation meets the criteria set out in Executive Order 14 (as amended, July 16, 2018), including why the regulation is (a) necessary for the protection of public health, safety, and welfare, and (b) is clearly written and easily understandable.

The regulation meets the criteria set out in Executive Order 14 (2018) as it is necessary for the protection of public health, safety and welfare of the citizens and visitors to the Commonwealth. The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the spring of 2019.

Decision

Please explain the basis for the rulemaking entity’s decision (retain the regulation as is without making changes, amend the regulation, or repeal the regulation).

The Board recognizes that there are sections of the regulations that need amendments and clarifications. Therefore, the Board intends to authorize the Department to initiate at least one regulatory action which address priority issues with the regulations in the spring of 2019. At a minimum, amendments on how to address roadways on or below an impounding structure for hazard potential classifications; clarifications on the incremental damage analysis process; gate requirements; and the requirements for agricultural exempt dams.

Small Business Impact

As required by § 2.2-4007.1 E and F of the Code of Virginia, include a discussion of the agency’s consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation. Also, discuss why the agency’s decision, consistent with the stated objectives of applicable law, will minimize the economic impact of regulations on small businesses.

There is a continued need for the regulations as they are mandated by law. No public comments were received that indicated their suggested changes would minimize the impact of the regulation on small

business. The regulations do not have an adverse impact on small businesses and may have provide opportunities for small businesses in the engineering, construction, and environmental services industries.

The regulations are technical in nature and, because of that technicality, can be difficult to understand. The Board recognizes that certain sections of the regulations are in need of clarification and will initiate at least one regulatory action to address that need. The regulations do not overlap, duplicate or conflict with any known federal or state law or regulation.