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Final Regulation
Agency Background Document

Agency name	Virginia Soil and Water Conservation Board
Virginia Administrative Code (VAC) citation	4VAC50-60
Regulation title	Virginia Stormwater Management Program (VSMP) Permit Regulations
Action title	Amend Parts I, II, and III of the Virginia Stormwater Management Program Permit Regulations to address water quality and quantity and local stormwater management program criteria.
Date this document prepared	June 10, 2011

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 14 (2010) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual.*

Brief summary

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also, please include a brief description of changes to the regulation from publication of the proposed regulation to the final regulation.

This will be the third set of final regulations adopted for this regulatory action. This document will discuss the changes from the last final version of the regulations (adopted December 9, 2009 and published January 4, 2010) and that was suspended by the Virginia Soil and Water Conservation Board (Board) in response to 25 petitions (January 14, 2010) to the current version of the regulations that was unsuspended and adopted by the Board on May 24, 2011. A public record of the documents related to the prior two final actions may be found on the Commonwealth's Regulatory TownHall and on the Department of Conservation and Recreation's website at: http://www.dcr.virginia.gov/lr2d.shtml.

NOTE: Chapters 137 and 370 of the 2010 Virginia Acts of Assembly stipulated that these regulations are required to become effective within 280 days after the establishment by the EPA of a Chesapeake Bay-wide Total Maximum Daily Load

(TMDL) but in any event no later than December 1, 2011. As the TMDL was adopted by EPA on December 29, 2010, **these regulations must be effective on or before October 5, 2011**. In order to meet this date, regulatory procedures and associated timelines indicate that the regulation **should be submitted for publication in the Virginia Register by the August 10, 2011** noon submittal deadline (for publication on August 29, 2011).

Overall, this final regulatory action amends the technical criteria applicable to stormwater discharges from construction activities including postdevelopment requirements, establishes minimum criteria for locality-administered stormwater management programs (local stormwater management programs) and Department of Conservation and Recreation (department) administered stormwater management programs, specifies the authorization procedures and review procedures for local stormwater management programs, and amends the definitions section applicable to all of the Virginia Stormwater Management Program (VSMP) regulations. This entails amending Parts I (definitions), II (water quality and quantity technical criteria), and III (stormwater program administrative authority criteria) of the regulations.

In this final action, Part II was modified as follows:

- General sections applicable to all Part II were amended or added related to Authority, Implementation Date, General Objectives, Applicability of other Laws and regulations, Time limits on applicability of approved design criteria, Grandfathering, and Chesapeake Bay Preservation Act land-disturbing activity;
- A new Part II A was added that includes administrative criteria for regulated land disturbing activities;
- Water quality and quantity technical criteria were moved from Part II A to Part II B; and
- Today's water quality technical standards referenced in both the time limits on applicability of approved design criteria and grandfathering sections were moved from Part II B to Part II C.

General Sections in Part II were amended as follows:

- A new section titled "Time limits on applicability of approved design criteria" was created and language carved out the grandfathering section that specifies that any project that receives general permit coverage shall be held to the technical criteria under which permit coverage is issued and shall remain subject to those criteria for an additional two permit cycles. This represents a tightening of today's administrative processes and equates to the period within which over 90% of construction projects are typically completed.
- The grandfathering section was updated to move away from paralleling local vesting standards and contains specified grandfathering provisions associated with projects for which local plan approval has been received; local, state, or federal funding has been obligated; or governmental bonding or public debt financing has been issued prior to July 1, 2012. For projects grandfathered under the receipt of local plan approval or the obligation of local, state, or federal funding provisions, construction needs to be completed by June 30, 2019.

- A Chesapeake Bay Preservation Act section has been added that specifies the requirements for small land-disturbing projects within the Chesapeake Bay Act jurisdictions. These small projects, between 2,500 square feet and less than one-acre, would now be subject to only state requirements, rather than state and federal requirements as federal requirements only need to extend down to one-acre. These projects would not be required to receive coverage under the VSMP general permit, but would be required to receive local permits and meet the specified criteria in Parts II A and B.

The new Part II A contains:

- Requirements to inform the operator as to what is expected in order to receive general permit coverage including items such as stormwater plan or SWPPP requirements. These elements were previously outlined in Part III;
- A TMDL requirement that an operator identify and implement additional control measures on a site for specified pollutants so that discharges are consistent with the assumptions and requirements of any applicable wasteload allocation; and
- EPA adopted federal effluent limitation guidelines.

In Part II B the revised water quality and quantity technical requirements applicable to stormwater discharges from construction activities include:

- A scientifically-based 0.41 lbs/acre/year phosphorus standard for new development activities statewide (prior adopted standard was 0.45). References to different standards being allowable in a UDA in order to encourage compact development were removed as it was not believed that a 0.41 standard would encourage sprawl, especially with the offsite compliance methodologies that will be available;
- A redevelopment requirement for projects where land disturbance results in no net increase in impervious cover over the predevelopment condition with total phosphorus load reduction requirements of either 10% or 20% below the predevelopment phosphorus condition depending on the size of the land disturbing activity. For land disturbing activities that result in new increases in impervious cover, the new development standard shall be applied to the increased impervious area. The prior version of the regulations was not based on changes in imperviousness and did not specify the use of the new development standard for portions of a site where levels of imperviousness are being increased;
- Water quantity minimum standards and procedures to address channel protection and flood protection including the addition of a provision stating that compliance with these minimum standards shall be deemed to satisfy the requirements of minimum standard 19 of the Virginia Erosion and Sediment Control Regulations. Under channel protection, references to stable and unstable conveyance systems were removed and under channel protection, in the energy balance formula (for natural stormwater conveyance systems), the peak flow rate and volume of runoff for the existing land use at a given storm was changed from an assumed “good pasture” condition to now utilize the peak flow rate and volume of runoff from the actual pre-developed land use condition. To

moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites ≤ 1 acre); and

- Offsite options to achieve compliance with the water quality and where allowed water quantity requirements. Such options incorporate those requirements specified in Chapter 523 of the 2011 Virginia Acts of Assembly (SB1099). The amended language sets out conditions under which an operator must be allowed to utilize offsite compliance options and specifies that offsite options must achieve the necessary nutrient reductions prior to commencement of the operator's land disturbing activity. Additionally, the state buy down option was eliminated.

It is also important to note that the final regulations and the 0.41 lbs/acre/year phosphorus standard for new development are science-based. Accordingly, they contain a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. The regulatory advisory panel agreed that a science based approach linking impervious cover and declining stream health was both valid and defensible.

- Research has established that as impervious cover in a watershed increases, stream stability is often reduced, habitat is lost, water quality becomes degraded, and biological diversity decreases largely due to stormwater runoff.
- In order to be protective of local streams and local water quality a water quality design standard that equates to an impervious cover of ten percent was selected. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.

Part III was reorganized in this version of the regulations. Part III A was restructured to include both locality-administered programs and Department-administered programs within the same sub-Part and accordingly Part III C was moved to Part III B and Part III D was moved to Part III C. Accordingly, Part III A establishes the minimum criteria for a stormwater management program implemented by a stormwater program administrative authority (either a local stormwater management program or a department-administered program). Ordinance requirements for a Virginia Soil and Water Conservation Board (board) authorized local stormwater management program have also been established. Minimum criteria for the stormwater programs include but are not limited to, administration, plan review, inspection, enforcement, reporting, and recordkeeping. Part III B establishes the procedures that the board will utilize in authorizing a locality to administer a local stormwater management program. Part III C establishes the criteria the Department will utilize in reviewing a locality's administration of a local stormwater management program.

The primary technical change to Part III is in how local programs operate. Under the previous version of the regulations, an approved local stormwater management program was going to issue coverage under the general permit and enforce under the Stormwater Management Act and regulations. Under this final version, approved local programs operate and enforce under the auspices of a local ordinance that includes the elements of the stormwater regulations. Localities will still make sure that the applicant

has received state general permit coverage prior to issuing a local land disturbing permit. Localities must adopt ordinances that are at least as stringent as the VMSP General Permit for Discharges of Stormwater from Construction Activities. The department will enforce the VSMP General Permit for the Discharge of Stormwater from Construction Activities.

Finally, this action makes changes to definitions in Part I, which is applicable to the full body of the VSMP regulations. Unnecessary definitions are deleted, needed definitions are added, and many existing definitions are updated. In the final action, several additional definitions were added and other minor refinements made to address comments received. A number of definitions previously subject to deletion were moved to Part II C where they will only be applicable to those grandfathering sections.

Statement of final agency action

Please 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 or board taking the action, and (3) the title of the regulation.

This action to rescind the January 12, 2010 suspension of the January 4, 2010 published final regulations and to amend and readopt final regulations 4VAC50-60, Parts I, II, and III of the Virginia Stormwater Management Program (VSMP) Permit Regulations was approved by the Virginia Soil and Water Conservation Board on May 24, 2011.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

The Virginia Stormwater Management Program was created by Chapter 372 of the 2004 Virginia Acts of Assembly (HB1177). This action transferred the responsibility for the permitting programs for Municipal Separate Storm Sewers (MS4s) and construction activities from the State Water Control Board and DEQ to the Virginia Soil and Water Conservation Board and DCR and provided the Board with authority to adopt regulations that specify minimum technical criteria and administrative procedures for stormwater management programs in Virginia to ensure the general health, safety and welfare of the citizens of the Commonwealth as well as protect the quality and quantity of state waters from the potential harm of unmanaged stormwater. This federally-authorized program is administered in accordance with requirements set forth in the federal Clean Water Act (33 USC § 1251 et seq.) as well as the Virginia Stormwater Management Act (§10.1-603.1 et seq.).

Section 10.1-603.2:1 of the Code of Virginia speaks to the powers and duties of the Virginia Soil and Water Conservation Board. Among those powers and duties, the Board:

> "…***shall permit, regulate, and control stormwater runoff in the Commonwealth****. In accordance with the VSMP [Virginia Stormwater Management Program], the Board may issue, deny, revoke, terminate, or amend stormwater permits; adopt regulations; approve and periodically review local stormwater management programs and management programs developed in conjunction with a municipal separate storm sewer permit; enforce the provisions of this article; and otherwise act to* ***ensure the general health, safety and welfare of the citizens of the Commonwealth as well as protect the quality and quantity of state waters from the potential harm of unmanaged stormwater****.*"

Specifically, the Board may:

> "…*(1) issue, deny, amend, revoke, terminate, and enforce permits for the control of stormwater discharges from Municipal Separate Storm Sewer Systems and land disturbing activities;*
> *(2) delegate to the Department or to an approved locality any of the powers and duties vested in it by this article except the adoption and promulgation of regulations. Delegation shall not remove from the Board authority to enforce the provisions of this article."*

Subdivision 2 of §10.1-603.2:1 of the Code of Virginia authorizes the Virginia Soil and Water Conservation Board to delegate to the Department or an approved locality the implementation of the Virginia Stormwater Management Program:

> *§10.1-603.2:1 Powers and duties of the Virginia Soil and Water Conservation Board.*
> *(2) Delegate to the Department or to an approved locality any of the powers and duties vested in it by this article except the adoption and promulgation of regulations. Delegation shall not remove from the Board authority to enforce the provisions of this article.*

Section 10.1-603.3 of the Code of Virginia requires establishment of stormwater management programs by localities. The Board must amend, modify or delete provisions of the Virginia Stormwater Management Program (VSMP) Permit Regulations to allow localities to implement local stormwater management programs:

> *§10.1-603.3. Establishment of stormwater management programs by localities.*
> *A. Any locality located within Tidewater Virginia as defined by the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq.), or any locality that is partially or wholly designated as required to obtain coverage under an MS4 permit under the provisions of the federal Clean Water Act, shall be required to adopt a local stormwater management program for land disturbing activities consistent with the provisions of this article according to a schedule set by the Board. Such schedule shall require adoption no sooner than 15 months and not more than 21 months following the effective date of the regulation that establishes local program criteria and delegation procedures, unless the Board deems that the Department's review of the local program warrants an extension up to an*

additional 12 months, provided that the locality has made substantive progress. A locality may adopt a local stormwater management program at an earlier date with the consent of the Board.
B. Any locality not specified in subsection A may elect to adopt and administer a local stormwater management program for land disturbing activities pursuant to this article. Such localities shall inform the Board and the Department of their initial intention to seek delegation for the stormwater management program for land disturbing permits within six months following the effective date of the regulation that establishes local program criteria and delegation procedures. Thereafter, the Department shall provide an annual schedule by which localities can submit applications for delegation.
C. In the absence of the delegation of a stormwater management program to a locality, the Department will administer the responsibilities of this article within the given jurisdiction in accordance with an adoption and implementation schedule set by the Board.

Additionally, enactment clause 2 of the Chapter 18 of the 2009 Virginia Acts of Assembly stipulates that *the regulation that establishes local program criteria and delegation procedures and the water quality and water quantity criteria, and that is referenced in subsections A and B of §10.1-603.3 of this act, shall not become effective prior to July 1, 2010*. This effective date of the regulatory action was further modified in 2010. Chapters 137 and 370 of the 2010 Virginia Acts of Assembly stipulated that these regulations are required to become effective within 280 days after the establishment by the EPA of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011.

Chapters 137 and 370 specified:

1. That the second enactment of Chapter 18 of the Acts of Assembly of 2009 is amended and reenacted as follows:

2. That the regulation that establishes local program criteria and delegation procedures and the water quality and water quantity criteria, and that is referenced in subsections A and B of § 10.1-603.3 of this act, shall ~~not~~ become effective ~~prior to July 1, 2010~~ within 280 days after the establishment by the United States Environmental Protection Agency of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011.

3. That the Virginia Soil and Water Conservation Board shall convene an advisory panel of stakeholders to review the regulation and to make recommendations to the Board on revisions to the regulations necessary to, among other things, comply with such TMDL.

As the TMDL was adopted by EPA on December 29, 2010, **these regulations must be effective on or before October 5, 2011**.

Subsection E of §10.1-603.3 further stipulates minimum requirements for a local stormwater program:

§10.1-603.3(E). Establishment of stormwater management programs by localities.

E. Each locality that is required to or that elects to adopt and administer an approved local stormwater management program shall, by ordinance, establish a local stormwater management program that may be administered in conjunction with a local MS4 program and a local erosion and sediment control program, which shall include, but is not limited to, the following:

1. Consistency with regulations adopted in accordance with provisions of this article;

2. Provisions for long-term responsibility for and maintenance of stormwater management control devices and other techniques specified to manage the quality and quantity of runoff; and

3. Provisions for the integration of locally adopted stormwater management programs with local erosion and sediment control, flood insurance, flood plain management, and other programs requiring compliance prior to authorizing construction in order to make the submission and approval of plans, issuance of permits, payment of fees, and coordination of inspection and enforcement activities more convenient and efficient both for the local governments and those responsible for compliance with the programs.

F. The Board shall delegate a local stormwater management program to a locality when it deems a program consistent with this article.

G. Delegated localities may enter into agreements with soil and water conservation districts, adjacent localities, or other entities to carry out the responsibilities of this article.

H. Localities that adopt a local stormwater management program shall have the authority to issue a consolidated stormwater management and erosion and sediment control permit that is consistent with the provisions of the Erosion and Sediment Control Law (§10.1-560 et seq.).

I. Any local stormwater management program adopted pursuant to and consistent with this article shall be considered to meet the stormwater management requirements under the Chesapeake Bay Preservation Act (§10.1-2100 et seq.) and attendant regulations.

Section 10.1-603.4 also provides additional authority and guidance to the Board in the development of regulations, including authority to develop criteria associated with local program administration and implementation, criteria to control nonpoint source pollution, and to establish statewide standards for stormwater management from land disturbing activities.

§10.1-603.4. Development of regulations.

The Board is authorized to adopt regulations that specify minimum technical criteria and administrative procedures for stormwater management programs in Virginia. The regulations shall:

1. Establish standards and procedures for delegating the authority for administering a stormwater management program to localities;

2. Establish minimum design criteria for measures to control nonpoint source pollution and localized flooding, and incorporate the stormwater management regulations adopted pursuant to the Virginia Erosion and Sediment Control Law

(§ 10.1-560 et seq.), as they relate to the prevention of stream channel erosion. These criteria shall be periodically modified as required in order to reflect current engineering methods;

3. Require the provision of long-term responsibility for and maintenance of stormwater management control devices and other techniques specified to manage the quality and quantity of runoff;

4. Require as a minimum the inclusion in local programs of certain administrative procedures which include, but are not limited to, specifying the time period within which a local government that has adopted a stormwater management program must grant permit approval, the conditions under which approval shall be granted, the procedures for communicating disapproval, the conditions under which an approved permit may be changed and requirements for inspection of approved projects;

6. Establish statewide standards for stormwater management from land disturbing activities of one acre or greater, except as specified otherwise within this article, and allow for the consolidation in the permit of a comprehensive approach to addressing stormwater management and erosion and sediment control, consistent with the provisions of the Erosion and Sediment Control Law (§ 10.1-560 et seq.) and this article. However, such standards shall also apply to land disturbing activity exceeding an area of 2500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20 et seq.) adopted pursuant to the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq.);

7. Require that stormwater management programs maintain after-development runoff rate of flow and characteristics that replicate, as nearly as practicable, the existing predevelopment runoff characteristics and site hydrology, or improve upon the contributing share of the existing predevelopment runoff characteristics and site hydrology if stream channel erosion or localized flooding is an existing predevelopment condition…;

8. Encourage low impact development designs, regional and watershed approaches, and nonstructural means for controlling stormwater;

9. Promote the reclamation and reuse of stormwater for uses other than potable water in order to protect state waters and the public health and to minimize the direct discharge of pollutants into state waters;

10. Establish, with the concurrence of the Director, a statewide permit fee schedule for stormwater management related to municipal separate storm sewer system permits; and

11. Provide for the evaluation and potential inclusion of emerging or innovative stormwater control technologies that may prove effective in reducing nonpoint source pollution.

It should also be noted that localities may adopt more stringent criteria than the minimum criteria developed by the Board through this regulatory process.

§10.1-603.7. Authorization for more stringent ordinances.

A. Localities are authorized to adopt more stringent stormwater management ordinances than those necessary to ensure compliance with the Board's minimum regulations, provided that the more stringent ordinances are based upon factual findings of local or regional comprehensive watershed management

studies or findings developed through the implementation of a MS4 permit or a locally adopted watershed management study and are determined by the locality to be necessary to prevent any further degradation to water resources or to address specific existing water pollution including nutrient and sediment loadings, stream channel erosion, depleted groundwater resources, or excessive localized flooding within the watershed and that prior to adopting more stringent ordinances a public hearing is held after giving due notice.
B. Any local stormwater management program in existence before January 1, 2005 that contains more stringent provisions than this article shall be exempt from the requirements of subsection A.

Chapter 523 of the 2011 Virginia Acts of Assembly (SB1099) established offsite compliance options that may be utilized to achieve compliance with the water quality and water quantity requirements of the stormwater regulations. The Board maintains the authority to develop a nutrient offset program for areas outside of the Chesapeake Bay watershed.

§10.1-603.8:1. Stormwater nonpoint nutrient offsets.
A. As used in this section:
"Nonpoint nutrient offset" means nutrient reductions certified as nonpoint nutrient offsets under the Chesapeake Bay Watershed Nutrient Exchange Program (§ 62.1-44.19:12 *et seq.).*
"Permit issuing authority" has the same meaning as in § 10.1-603.2 and includes any locality that has adopted a local stormwater management program.
"Tributary" has the same meaning as in § 62.1-44.19:13.
B. Permit issuing authorities are authorized to allow compliance with stormwater nonpoint nutrient runoff water quality criteria established pursuant to § 10.1-603.4, in whole or in part, through the use of the permittee's acquisition of nonpoint nutrient offsets in the same tributary.
C. No permit issuing authority shall allow the use of nonpoint nutrient offsets to address water quantity control requirements. No permit issuing authority shall allow the use of nonpoint nutrient offsets or other off-site options in contravention of local water quality-based limitations: (i) consistent with determinations made pursuant to subsection B of § 62.1-44.19:7, (ii) contained in a municipal separate storm sewer system (MS4) program plan approved by the Department, or (iii) as otherwise may be established or approved by the Board.
D. A permit issuing authority shall allow off-site options in accordance with subsection I when:
1. The permit applicant demonstrates to the satisfaction of the permit issuing authority that (i) alternative site designs have been considered that may accommodate on-site best management practices, (ii) on-site best management practices have been considered in alternative site designs to the maximum extent practicable, (iii) appropriate on-site best management practices will be implemented, and (iv) full compliance with postdevelopment nonpoint nutrient runoff compliance requirements cannot practicably be met on site. For purposes of this subdivision, if an applicant demonstrates on-site control of at least 75 percent of the required phosphorous nutrient reductions, the applicant shall be deemed to have met the requirements of clauses (i) through (iv);
2. Less than five acres of land will be disturbed; or

3. The postconstruction phosphorous control requirement is less than 10 pounds per year.

E. Documentation of the permittee's acquisition of nonpoint nutrient offsets shall be provided to the permit issuing authority in a certification from an offset broker documenting the number of phosphorus nonpoint nutrient offsets acquired and the associated ratio of nitrogen nonpoint nutrient offsets at the offset generating facility. The offset broker shall pay the permit issuing authority a water quality enhancement fee equal to six percent of the amount paid by the permittee for the nonpoint nutrient offsets. If a locality is not the permit issuing authority, such fee shall be deposited into the Virginia Stormwater Management Fund established by § 10.1-603.4:1. If the permit issuing authority is a locality, such fees shall be used solely in the locality where the associated stormwater permit applies for inspection and maintenance of stormwater best management practices, stormwater educational programs, or programs designed to protect or improve local water quality.

F. Nonpoint nutrient offsets used pursuant to subsection B shall be generated in the same or adjacent eight digit hydrologic unit code as defined by the United States Geological Survey as the permitted site. Nonpoint nutrient offsets outside the same or adjacent eight digit hydrologic unit code may only be used if it is determined by the permit issuing authority that no nonpoint nutrient offsets are available within the same or adjacent eight digit hydrologic unit code when the permit issuing authority accepts the final site design. In such cases, and subject to other limitations imposed in this section, nonpoint nutrient offsets generated within the same tributary may be used. In no case shall nonpoint nutrient offsets from another tributary be used.

G. For that portion of a site's compliance with stormwater nonpoint nutrient runoff water quality criteria being obtained through nonpoint nutrient offsets, a permit issuing authority shall (i) use a 1:1 ratio of the nonpoint nutrient offsets to the site's remaining postdevelopment nonpoint nutrient runoff compliance requirement and (ii) assure that the nonpoint nutrient offsets are secured in perpetuity.

H. No permit issuing authority may grant an exception to, or waiver of, postdevelopment nonpoint nutrient runoff compliance requirements unless off-site options have been considered and found not available.

I. The permit issuing authority shall require that nonpoint nutrient offsets and other off-site options approved by the Department or applicable state board, including locality pollutant loading pro rata share programs established pursuant to § 15.2-2243, achieve the necessary nutrient reductions prior to the commencement of the permittee's land-disturbing activity. A pollutant loading pro rata share program established by a locality pursuant to § 15.2-2243 and approved by the Department or applicable state board prior to January 1, 2011, including those that may achieve nutrient reductions after the commencement of the land-disturbing activity, may continue to operate in the approved manner for a transition period ending June 30, 2014. The permittee shall have the right to select between the use of nonpoint nutrient offsets or other off-site options, except during the transition period in those localities to which the transition period applies. The locality may use funds collected for nutrient reductions pursuant to a locality pollutant loading pro rata share program under § 15.2-2243 for nutrient

reductions in the same tributary within the same locality as the land-disturbing activity or for the acquisition of nonpoint nutrient offsets. In the case of a phased project, the permittee may acquire or achieve the off-site nutrient reductions prior to the commencement of each phase of the land-disturbing activity in an amount sufficient for each such phase.

J. The Board may establish by regulation a stormwater nutrient program for portions of the Commonwealth that do not drain into the Chesapeake Bay.

K. Nutrient reductions obtained through nonpoint nutrient offsets shall be credited toward compliance with any nutrient allocation assigned to a municipal separate storm sewer system in a Virginia Stormwater Management Program Permit or Total Maximum Daily Load applicable to the location where the activity for which the nonpoint nutrient offsets are used takes place. If the activity for which the nonpoint nutrient offsets are used does not discharge to a municipal separate storm sewer system, the nutrient reductions shall be credited toward compliance with the applicable nutrient allocation.

L. A permit issuing authority shall allow the full or partial substitution of nonpoint nutrient offsets for existing on-site nutrient controls when (i) the nonpoint nutrient offsets will compensate for 10 or fewer pounds of the annual phosphorous requirement associated with the original land-disturbing activity or (ii) existing on-site controls are not functioning as anticipated after reasonable attempts to comply with applicable maintenance agreements or requirements and the use of nonpoint nutrient offsets will account for the deficiency. The party responsible for maintenance shall be released from maintenance obligations related to the on-site phosphorous controls for which the nonpoint nutrient offsets are substituted.

M. To the extent available, with the consent of the permittee, the permit issuing authority may include the use of nonpoint nutrient offsets or other off-site measures in resolving enforcement actions to compensate for (i) nutrient control deficiencies occurring during the period of noncompliance and (ii) permanent nutrient control deficiencies.

N. This section shall not be construed as limiting the authority established under § 15.2-2243; however, under any pollutant loading pro rata share program established thereunder, the subdivider or developer shall be given appropriate credit for nutrient reductions achieved through nonpoint nutrient offsets or other off-site options.

2. That the provisions of this act shall be implemented by permit issuing authorities without the need to amend any local government ordinance, stormwater management plan, or Virginia Soil and Water Conservation Board regulatory action.

Requirements set forth in the federal Clean Water Act (33 USC § 1251 et seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any subsequent revisions thereto, and its attendant regulations set forth in 40 CFR Parts 122, 123, 124 and 125 requires states to establish a permitting program for the management of stormwater for municipal separate storm sewer systems (MS4s) and construction activities disturbing greater than or equal to an acre.

Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons it is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

In order to improve water quality, the Commonwealth is implementing actions that reduce pollutants coming from agriculture, sewage treatment plants, air deposition, septic systems, as well as urban and suburban runoff. The stormwater regulations and the corresponding improvements to the Virginia Stormwater Management Program are but one piece of the puzzle in making water quality improvements and controlling stormwater runoff on a statewide basis.

The Virginia Stormwater Management Program (VSMP) is necessary to address water quality within the Commonwealth. Section 10.1-603.2:1 of the Code of Virginia specifies that "[i]n addition to other powers and duties conferred upon the Board, it shall permit, regulate, and control stormwater runoff in the Commonwealth. In accordance with the VSMP, the Board may issue, deny, revoke, terminate, or amend stormwater permits; adopt regulations; approve and periodically review local stormwater management programs and management programs developed in conjunction with a municipal separate storm sewer permit; enforce the provisions of this article; **and otherwise act to ensure the general health, safety and welfare of the citizens of the Commonwealth as well as protect the quality and quantity of state waters from the potential harm of unmanaged stormwater**.

Controlling stormwater runoff and its impacts is a serious issue facing the Commonwealth and its local governments. Citizens often complain about flooding caused by increased amounts of stormwater runoff and the runoff is also reported as a contributor to excessive nutrient enrichment in numerous rivers, lakes, and ponds throughout the state, as well as a continued threat to estuarine waters and the Chesapeake Bay. Numerous studies have documented the cumulative effects of urbanization on stream and watershed ecology. Research has established that as impervious cover in a watershed increases, stream stability is reduced, habitat is lost, water quality becomes degraded, and biological diversity decreases largely due to stormwater runoff. We recognize that impervious areas decrease the natural stormwater purification functions of watersheds and increase the potential for water quality impacts in receiving waters. Additionally, runoff from managed turf is recognized as an additional significant source of pollutants.

Uncontrolled stormwater runoff has many cumulative impacts on humans and the environment including:

- Flooding - Damage to public and private property
- Eroded Streambanks - Sediment clogs waterways, fills lakes and reservoirs, and kills fish and aquatic animals
- Widened Stream Channels - Loss of valuable property
- Aesthetics - Dirty water, trash and debris, foul odors

- Fish and Aquatic Life - Impaired and destroyed
- Impaired Recreational Uses - Swimming, fishing, boating
- Threatens Public Health - Contamination of drinking water, fish/shellfish
- Threatens Public Safety - Drownings occur in flood waters
- Economic Impacts – Impairments to fisheries, shellfish, tourism, recreation related businesses

Additionally, development can dramatically alter the hydrologic regime of a site or watershed as a result of increases in impervious surfaces. The impacts of development on hydrology may include:

- Loss of vegetation, resulting in decreased evapotranspiration
- Soil compaction
- Reduced groundwater recharge
- Reduced stream base flow
- Increased runoff volume
- Increased peak discharges
- Decreased runoff travel time
- Increased frequency and duration of high stream flow
- Increased flow velocity during storms
- Increased frequency of bank-full and over-bank floods

It is believed that these final regulations will work to minimize the cumulative impacts of stormwater on humans and the environment and moderate the associated hydrologic impacts. If not properly managed, stormwater can have significant economic impacts and the stream restoration costs to fix the problems after the fact are very high.

A 2007 EPA Office of the Inspector General report entitled “Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay; Report No.2007-P-00031; September 10, 2007, noted that “new development is increasing nutrient and sediment loads at rates faster than loads are being reduced from developed lands”. Because progress in reducing loads is being offset by increasing loads from new development, greater reductions may be needed to meet the Bay goals as well as to address stream impairments across the Commonwealth.

The Commonwealth needs to employ all possible strategies in its tool box to address water quality improvements on a statewide basis in both agricultural and urban settings, including making marked improvements in its stormwater regulations. The final stormwater regulations are a necessary and critical part of the Commonwealth’s overall nutrient management and sediment control strategies and the criteria included in the final regulations will slow nutrient and sediment increases, and where possible, contribute to water quality improvements. Improved stormwater management through these regulations will have numerous benefits including reductions in flood risk, avoidance of infrastructure costs through the use of LID practices, improved aquatic life, and enhancement of recreational and commercial fisheries. This regulatory action will also bring us one step closer to fully integrating stormwater and erosion and sediment control and will allow for one-stop-shopping for the regulated construction industry with services to be provided by our local government partners.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All changes made in this regulatory action" section.

This will be the third set of final regulations adopted for this regulatory action.

The prior actions included the following:

- October 5, 2009 adoption of final regulations (suspended on October 5, 2009 for 30-day public comment period)
- December 9, 2009 adoption of final regulations (suspended on January 14, 2010 in response to 25 petitions)
- Legislative action during the 2010 Session [HB1220 (Hugo) and SB395 (Wagner) (Chapter 137 and Chapter 370)] specified that the regulations shall become effective within 280 days after the establishment by the United States Environmental Protection Agency of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011. [NOTE: As the TMDL was adopted by EPA on December 29, 2010, **these regulations must be effective on or before October 5, 2011**.]
- At the Virginia Soil and Water Conservation Board's meeting on March 26, 2010, the Board expressed its sense to keep the final regulations suspended and that in accordance with the legislation that the body of regulations be further modified as necessary through a public process.

On May 24, 2011, the Virginia Soil and Water Conservation Board voted to rescind the January 12, 2010 suspension of the January 4, 2010 published final regulations and affirmatively voted to amend and readopt final regulations 4VAC50-60, Parts I, II, and III of the Virginia Stormwater Management Program (VSMP) Permit Regulations.

Accordingly, this document will discuss the changes from the last final version of the regulations (adopted December 9, 2009 and published January 4, 2010) and that was suspended by the Virginia Soil and Water Conservation Board (Board) in response to 25 petitions (January 14, 2010) to the current version of the regulations unsuspended and adopted by the Board on May 24, 2011. A public record of the documents related to the prior two final actions may be found on the Commonwealth's Regulatory TownHall and the Department of Conservation and Recreation's website at: http://www.dcr.virginia.gov/lr2d.shtml.

Key provisions of this final regulatory action include the following:

Part II [4VAC50-60-40 through 4VAC50-60-99]

Part II has been restructured to reorganize and clarify/ update Authority, Implementation Date, General Objectives, Applicability of other Laws and regulations, Time limits on

applicability of approved design criteria, Grandfathering, and Chesapeake Bay Preservation Act land-disturbing activity sections as well as Part II A (general administrative criteria for regulated land-disturbing criteria), B (water quality and quantity technical criteria), and C (today's current standards for grandfathered projects) that contain the statewide standards for stormwater management.

1) Section **4VAC50-60-47.1** titled **Time limits on applicability of approved design criteria** has been created and specifies that any project that receives general permit coverage shall be held to the technical criteria under which permit coverage is issued and shall remain subject to those criteria for an additional two permit cycles. Any projects that are issued coverage under the July 1, 2009 general permit and for which coverage is maintained, will remain subject to the technical criteria in Part II C for an additional two permit cycles. If permit coverage is not maintained, or if portions of the project are not completed after the two additional permit cycles have passed, portions of the project not under construction shall become subject to any new technical criteria adopted since original permit coverage was issued.
2) Section **4VAC50-60-48** titled **Grandfathering** has been revised and includes the following provisions:
   - Subsection A specifies that land disturbing activities that have received locality approval of a valid proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined as being equivalent prior to July 1, 2012, will be considered grandfathered under this section until June 30, 2019 and shall be subject to Part II C technical criteria.
   - Additionally, in the event that the approved document is modified during the grandfathering period and the amendments do not result in any increase in the amount of phosphorus leaving the site through stormwater runoff or any increase in the volume or rate of runoff, the project will maintain its grandfathered status.
   - Subsection B specifies that for any locality, state, or federal project for which there has been an obligation of locality, state, or federal funding, in whole or in part, prior to July 1, 2012, such projects shall be considered grandfathered under this section until June 30, 2019.
   - Subsection C specifies that for land disturbing activities grandfathered under subsections A and B, that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B.
   - Subsection D specifies that incases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2012, the project shall remain grandfathered and subject to the Part II C criteria.

3) Section **4VAC50-60-51** titled **Chesapeake Bay Preservation Act land-disturbing activity** has been added in this final regulation. This section specifies the requirements for small land-disturbing projects within the Chesapeake Bay Act jurisdictions. These small projects, between 2,500 square feet and less than 1 acre, would be subject to only state requirements, rather than state and federal requirements. These projects would not be required to receive coverage under the VSMP general permit, but would be required to receive local permits and meet the

specified criteria in Parts II A and B. These projects are subject to the following requirements:

- Design and implement an approved erosion and sediment control plan:
- Design and implement an approved stormwater management plan;
- Provide for long-term maintenance of any stormwater management facilities in accordance with 4VAC50-60-58;
- Apply the water quality design criteria in accordance with 4VAC50-60-63;
- Achieve the water quality design criteria in accordance with 4VAC50-60-65;
- Achieve the channel and flood protection criteria in accordance with 4VAC50-60-66;
- Utilize offsite compliance options in accordance with 4VAC50-60-69;
- Apply for exceptions in accordance with 4VAC50-60-57; and
- Be subject to the design storm hydrologic methods set out in 4VAC50-60-72; linear development controls in 4VAC50-60-76, and the criteria associated with stormwater impoundment structures or facilities in 4VAC50-60-85.

Part II A (4VAC50-60-53 through 4VAC50-60-59)

A new **Part II A** has been developed. Part II A contains the general administrative criteria for all regulated land disturbing activities. These requirements inform the operator as to what is expected in order to receive general permit coverage. Many of the requirements listed in 4VAC50-60-54, 4VAC50-60-55, and 4VAC50-60-56 are elements of federal regulations. In 2010, EPA adopted the federal effluent limitation guidelines. Virginia is required to adopt these regulations this year. To meet the federal timeline, the requirements listed in the effluent limitation guidelines have been duplicated in the appropriate section of this regulation.

4) Section **4VAC50-60-53** titled **Applicability** stipulates that these administrative requirements apply to all regulated land disturbing activities.

5) Section **4VAC50-60-54** titled **Stormwater pollution prevention plan requirements** specifies that the stormwater pollution prevention plan must contain the following elements:
   - An approved erosion and sediment control plan;
   - An approved stormwater management plan;
   - A pollution prevention plan must be developed that identifies potential sources of pollutants and describes the control measures that will be utilized to minimize those pollutants;
   - If a specific WLA for a pollutant has been established in a TMDL as is assigned to stormwater discharges from a construction activity, additional measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a State Water Control Board approved TMDL; and
   - The stormwater pollution prevention plan must address, to the extent otherwise required by state law or regulations and any applicable VSMP permit requirements, the following:
     - Control stormwater volume and velocity within the site;

- Control stormwater discharges;
- Minimize the amount of soil exposed during construction;
- Minimize the disturbance of steep slopes;
- Minimize sediment discharges from the site;
- Provide and maintain natural buffers around surface waters and direct stormwater to vegetated areas, unless infeasible;
- Minimize soil compaction and preserve topsoil unless infeasible; and
- Stabilize any disturbed areas immediately after any earth disturbing activities have permanently or temporarily (as defined) ceased.

6) Section **4VAC50-60-55** titled **Stormwater Management Plans** specifies that a stormwater management plan must be implemented as approved, shall apply to the entire land-disturbing activity, and shall consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff. The section also details the components required to be in a plan for it to be deemed a complete. The plans must include the following elements:
   - Information on the type and location of stormwater discharges, information on features to which stormwater is being discharged, and predevelopment and postdevelopment drainage areas;
   - Contact and parcel information;
   - Project narrative;
   - Location and design of stormwater management facilities as well as information on operation and maintenance of the facilities after the project is completed;
   - Hydrologic and hydraulic computations, including runoff characteristics;
   - Calculations verifying compliance with the water quality and quantity requirements;
   - A site map that includes the specified elements;
   - If off-site options are to be utilized, a letter of availability from the off-site provider;
   - Submission of the appropriate fee and forms;
   - Plans shall be appropriately signed and sealed by a professional;
   - Construction record drawings for the stormwater management facilities;

   The final regulations moved these criteria from 4VAC50-60-108 to this section. There have been minor revisions to the language to clarify the requirements.

7) Section **4VAC50-60-56** titled **Pollution Prevention Plans** details the components required to be in a pollution prevention plan and requires that such plan be implemented. The plans must include the following elements:
   - Minimize and treat the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters;
   - Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
   - Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

   The plan must also include effective best management practices to prohibit the following discharges:

- Wastewater for washout of concrete, unless managed by an appropriate control;
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance; and
- Soaps or solvents used in vehicle and equipment washing.

The section also precludes discharges from dewatering activities unless managed by appropriate controls.

8) Section **4VAC50-60-57** titled **Requesting and exception** specifies how an exception for Part II B or Part II C may be submitted and how a determination will be made to grant or deny the request.

9) Section **4VAC50-60-58** titled **Responsibility for long-term maintenance of permanent stormwater management facilities** requires that a recorded instrument, such as a maintenance agreement, be submitted to the stormwater program administrative authority to ensure the long term maintenance of stormwater facilities. This requirement was specified in the last version of the regulations; the requirement has been added in this Part to clearly demonstrate to the operator the requirement.

10) Section **4VAC50-60-59** titled **Applying for VSMP permit coverage** requires the operator to sign a complete and accurate registration statement and to provide the form to the appropriate stormwater program administrative authority.

Part II B (4VAC50-60-62 through 4VAC50-60-92)

11) Section **4VAC50-60-63** titled **Water Quality Design Criteria Requirements** specifies that in order to protect the quality of state waters and to control stormwater pollutants, the minimum technical criteria and statewide standards set out in this section for stormwater management associated with land disturbing activities shall be utilized, unless such project is grandfathered as discussed above.

NOTE: In general, since 2005 when the Board took over the federal stormwater permit program, the **current** water quality technical criteria for construction activity statewide are as follows:

- o Sites between 0 and 15% imperviousness for new development, all stormwater runoff goes virtually untreated.
- o New development above the 16% imperviousness threshold requires a post development pollutant load that is approximately 0.45 lbs/acre/year phosphorus.
- o A 10% reduction in the pre-development load is required on redevelopment sites.

In the final regulations, statewide water quality technical criteria for construction activities are as follows:

- For new development, a statewide 0.41 lbs/acre/year phosphorus standard is established. Upon the completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards.
- On prior developed lands the following technical criteria apply:
  - Where land disturbance is greater than or equal to 1 acre and results in no net increase in impervious cover over the predevelopment condition, total phosphorus loads shall be reduced to an amount at least 20% below the pre-development phosphorus load.
  - Where land disturbance is less than 1 acre and results in no net increase in impervious cover over the predevelopment condition, total phosphorus loads shall be reduced to an amount at least 10% below the pre-development phosphorus load.
  - For land disturbing activities that result in new increases in impervious cover, the new development standard shall be applied to the increased impervious area. For the remainder of the site, the criteria above will be utilized. In lieu of this provision, the total P-load of a linear development project on prior developed lands may be reduced by 20%.
  - The total phosphorus load shall not be required to be reduced to below the applicable standard for new development unless a more stringent standard has been established by a local stormwater management program.
- As was the case in the previous final regulations, a local stormwater management program may establish more stringent standards.
- TMDL requirements previously in this section have been moved form these postconstruction criteria to the construction criteria in 4VAC50-60-54.

12) Section **4VAC50-60-65** titled **Water Quality Compliance** specifies the following:

- Compliance with the water quality criteria shall be determined utilizing the Virginia Runoff Reduction Method. (The Method and associated spreadsheets were refined between proposed and final regulations.)
- BMPs listed in this section are approved for use as necessary to effectively reduce the phosphorus load and runoff volume in accordance with the Virginia Runoff Reduction Method. Design specifications for all approved BMPs can be found on the Virginia Stormwater BMP Clearinghouse website. Other approved BMPs available on this website may also be utilized to achieve compliance.
- A locality may establish use limitations on specific BMPs (such as wet ponds or certain infiltration practices) upon written justification to the Department.
- Table 1 has been removed, although the names of the currently approved best management practices have been maintained in a list format. The information presented in the table is available on the Virginia Stormwater BMP Clearinghouse and it was the consensus of the RAP to remove the table.
- Offsite alternatives where allowed (as specified in section 4VAC50-60-69) may be utilized to meet the technical standards.
- The section includes protocols regarding the application of design criteria to each drainage area of the site.

13) Section **4VAC50-60-66** titled **Water Quantity** specifies minimum standards and procedures to address channel protection and flood protection. A provision was added that compliance with the minimum standards of this section shall be deemed to satisfy the requirements of minimum standard 19 of the Virginia Erosion and Sediment Control Regulations. The language overall has been revised to clarify the requirements of the section.

- Channel protection shall be achieved through one of the following:
  - Stormwater released into a man-made conveyance system from the two-year 24-hour storm shall be done without causing erosion of the system.
  - Stormwater released into a restored stormwater conveyance system, in combination with other existing stormwater runoff, shall not exceed the design parameters of the restored system that is functioning in accordance with the design objectives.
  - Stormwater released to a natural stormwater conveyance shall be discharged at the maximum peak flow rate from the one-year 24-hour storm as calculated from the energy balance equation or another board approved methodology that is demonstrated to achieve equivalent results. To moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites $\leq$ 1 acre). The use of the energy balance equation is also an option when discharging to either a manmade stormwater conveyance system or a restored conveyance system.
- For channel protection, the limits of analysis are:
  - Based on land area, the site's contributing drainage area is less than or equal to 1.0% of the total watershed area; or
  - Based on peak flow rate, the site's peak flow rate from the one-year 24-hour storm is less than or equal to 1.0% of the existing peak flow rate from the one-year 24-hour storm prior to the implementation of any stormwater quantity control measures.
- Flood protection shall be achieved through one of the following:
  - When the system does not currently experience localized flooding, the post-development peak flow rate from the 10-year 24-hour storm is confined within the stormwater conveyance system.
  - When the system does currently experience localized flooding, the following options are available:
    - The post-development peak flow rate from the 10-year 24-hour storm is confined within the stormwater conveyance; or
    - The post-development peak flow rate from the 10-year 24-hour storm is released at a rate that is less than the predevelopment peak flow rate from the 10-year 24-hour storm. If this approach is utilized to comply with the flood protection criteria, downstream analysis within the limits established below shall be conducted.
- For flood protection, the limits of analysis are:
  - The site’s contributing drainage area is less than or equal to one percent of the total watershed area draining to a point of analysis in the downstream stormwater conveyance system;

- Based on peak flow rate, the site's peak flow rate from the 10-year 24-hour storm event is less than or equal to 1.0% of the existing peak flow rate from the 10-year 24-hour storm event prior to the implementation of any stormwater quantity control measures; or
- The stormwater conveyance system enters a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality.

14) A section numbered **4VAC50-60-69** titled **Offsite Compliance Options** has been revised in these final regulations. The section has been revised to include legislative requirements established during the 2011 General Assembly Session (Chapter 523). The section is outlined as follows:

- Subsection A specifies the options a stormwater program administrative authority may allow an operator to use which include:
  - COMPREHENSIVE PLAN: a local comprehensive watershed stormwater management plan adopted for the local watershed within which a project is located pursuant to 4VAC50-60-92 may be utilized to meet water quality or water quantity requirements.
  - LOCAL PRO-RATA: Specifies that a locality may use a pro rata fee in accordance with § 15.2-2243 or similar local funding mechanism to achieve offsite the water quality and quantity reductions required. Participants will pay a locally established fee sufficient to fund improvements necessary to adequately achieve those requirements.
  - NUTRIENT OFFSET: Incorporates the offset option passed by the 2009 General Assembly (HB2168) for water quality and is to be applied in accordance with the stipulations set out in the Code of Virginia (§10.1-603.8:1).
  - DEVELOPER SITE: The option specifies that water quality controls must be located within the same HUC or within the upstream HUCs in the local watershed that the land disturbing activity directly discharges to.
  - Any other offsite options approved by an applicable state agency or state board may be utilized.
- Subsection B specifies that an operator shall be allowed to utilized offsite compliance options under any of the following conditions:
  - Less than 5 acres of land will be disturbed;
  - The postconstruction phosphorus standard is less than 10 pounds per year; or
  - At least 75% of the required phosphorus nutrient reductions are achieved on-site. If the operator demonstrates to the satisfaction of the stormwater program administrative authority that 75% of the required reductions can not be practicably met onsite, then the required phosphorus reductions may be achieved through the use of offsite compliance options.
- Subsection C specifies the situations where offsite options will not be allowed. Offsite options must achieve the necessary nutrient reductions prior to the commencement of the operator's land disturbing activity. Additionally, offsite options shall not be allowed in contravention of local water quality-based limitations.

Part II C (4VAC50-60-94 through 4VAC50-60-99)

Part II C contains the technical criteria that will be applicable to specified administratively continued and "grandfathered" projects. The sections within Part II C have not been revised, except for definitional changes. They have been moved from Part II B to Part II C. A definitions section only applicable to this Part was added.

Part III (4VAC50-60-100 through 4VAC50-60-150)

15) Section **4VAC50-60-103** titled **Stormwater program administrative authority requirements for Chesapeake Bay Act land-disturbing activities** specifies the requirements for a stormwater program administrative authority in regulating stormwater runoff from Chesapeake Bay Act land-disturbing activities. Stormwater program administrative authorities are required to issue permits for these activities, require compliance with the requirements of 4VAC50-60-104 including ensuring compliance with Part II, review plans in accordance with 4VAC50-60-108, ensure long-term maintenance of facilities is provided for in accordance with 4VAC50-60-112, provide for inspections in accordance with 4VAC50-60-114, enforce these provisions in accordance with 4VAC50-60-116, provide for hearings in accordance with 4VAC50-60-118, provide for exceptions in accordance with 4VAC50-60-122, and meet the reporting and recordkeeping requirements in 4VAC50-60-126. This section allows the stormwater program administrative authority to collect a fee of $290 and an annual maintenance fee of $50 for all permits issued.

Part III A (4VAC50-60-104 through 4VAC50-60-126)

Part III A has been restructured to include both locality-administered programs and Department-administered programs within the same Part. The requirements are the same for both types of programs, although they will be implemented differently (localities by ordinance). In the previous version, the Department-administered versions were in Part III B, although the requirements were the same and merely referenced the appropriate sections in Part III A. The revisions provide more clarity for localities adopting local stormwater management programs and for the operators of land disturbing activities.

16) Section **4VAC50-60-106** has been modified. The section titled **Additional requirements for local stormwater management programs** requires that local governments adopt ordinances as least as stringent as the VSMP General Permit for Discharges of Stormwater from Construction Activities. Localities shall also adopt ordinances that ensure compliance with 4VAC50-60-460L of the regulations. Provisions in the earlier version of the regulations in section 4VAC50-60-106 have been moved to section 4VAC50-60-148 (Local stormwater management program administrative requirements).

17) Section **4VAC50-60-108** titled **Stormwater management plan review** has been modified. The components of a complete plan have been moved to 4VAC50-60-55. This section now specifies that a program administrative authority shall review and approve or disapprove stormwater management plans and outlines the criteria and

timeline by which such a determination is made. The section also outlines how plan modifications may be made and stipulates that a stormwater program administrative authority shall not provide authorization to begin a land disturbing activity until provided evidence of VSMP coverage.

18) Section **4VAC50-60-112** titled **Long-term maintenance of permanent stormwater management facilities** has been modified. The requirement to provide for the long-term maintenance of stormwater management facilities was included in the previous version of the regulations in section 4VAC50-60-124. The provisions of 4VAC50-60-112 have been revised to allow for additional flexibility by the operator and the stormwater program administrative authority.

19) Section **4VAC50-60-114** titled **Inspections** specifies the requirements for inspections by the stormwater program administrative authority. The program is required to inspect land disturbing activities for compliance with the approved erosion and sediment control plan, to ensure compliance with the approved stormwater management plan, to ensure the development, updating, and implementation of a pollution prevention plan, and to ensure the development and implementation of any additional control measures necessary to address a TMDL. The criteria for a stormwater program administrative authority have been modified slightly for clarity. Several subsections of this section have been moved to 4VAC50-60-112 (Long-term maintenance of permanent stormwater management facilities) with minor modifications.

20) Section **4VAC50-60-116** titled **Enforcement** has been modified slightly for clarity. The table has been removed, although the typical types of offenses have been maintained in list format. It was the consensus of the RAP that these regulations are not the appropriate mechanism to detail to the court what an acceptable penalty might be. Additional language has been added regarding the ability of the Department and the Board to enforce the VSMP permit or revoke coverage.

21) Section **4VAC50-60-118** titled **Hearings** has been slightly modified to include additional Code of Virginia requirements and definitional changes.

22) Section **4VAC50-60-122** titled **Exceptions** specifies that a stormwater program administrative authority may grant exceptions to the water quality and quantity provisions of Part II B and Part II C under certain conditions. Minor revisions to the language were made to the language, including definitional changes.

23) Section **4VAC50-60-124** has been stricken. The language in this section has been moved to sections 4VAC50-60-58 and 4VAC50-60-112.

24) Section **4VAC50-60-126** titled **Reports and recordkeeping** has been modified for definitional changes. Several minor revisions have been made to increase clarity.

Part III B (4VAC50-60-142 through 4VAC50-60-144)

In previous versions of the regulations, Part III B dealt with department-administered programs. In this version of the regulations, the criteria for both locality-administered programs and the department-administered program have been included in Part III A. Part III B in this version of the regulations specifies the procedures utilized by the department in its review of local stormwater management programs which was previously located in Part III C.

25) Section **4VAC50-60-142** titled **Authority and applicability** simply states that the department shall review of local stormwater management programs pursuant to § 10.1-603.12 of the Code of Virginia and explains the procedures that will be used to conduct those reviews.

26) Section **4VAC50-60-144** titled **Local stormwater management program review** has been moved from 4VAC50-60-157 in previous regulations. There have been several modifications to the language. There are additional opportunities for locality's to review and respond to the department's findings.

Part III C (4VAC50-60-146 through 4VAC50-60-150)

27) Section **4VAC50-60-148** titled **Local stormwater management program administrative requirements** has been added. The language previously existed in section 4VAC50-60-106. The language has been modified for clarity and to ensure that all the necessary administrative requirements are adopted through local ordinances.

28) Section **4VAC50-60-150** titled **Authorization procedures for local stormwater management programs** has been moved from 4VAC50-60-159 in previous regulations.

Part IIID has been removed from this final regulation and its components moved to Part III C.

Part I [4VAC50-60-10 through 4VAC50-60-30]

29) Makes additional changes to definitions in **Part I** as follows:

- Deletes unnecessary definitions (some are then moved to Part II C);
- Updates definitions such as “channel”, “development”, “flood fringe”, “floodplain”, “floodway”, “impervious cover”, "land disturbance", "large construction activity", “local stormwater management program”, “natral channel design concepts”, “permit-issuing authority”, “qualified personnel”, "qualifying local stormwater management program", "runoff characteristics", “runoff volume”, “site”, “small construction activity”, "stormwater conveyance system", “stormwater management facility”, "stormwater pollution prevention plan", and "surface waters".
- Adds needed definitions such as "Chesapeake Bay Preservation Act land-disturbing activity", "flood-prone area", "layout", "localized flooding", "main channel", and "stormwater program administrative authority".

- Includes definitions previously added such as “Chesapeake Bay Watershed”, “comprehensive stormwater management plan”, “karst features”, “natural channel design concepts”, “natural stream”, “peak flow rate”, “point of discharge”, “prior developed lands”, “qualifying local program”, “runoff volume”, “site hydrology”, and “Virginia Stormwater Management Handbook”; or amended such as “drainage area”, “flooding”, “linear development project”, pollutant discharge”, “postdevelopment”, “predevelopment”, “site”, “Virginia Stormwater Management Program”, and “watershed”.
- Includes abbreviations previously added for commonly used terms;

DOCUMENTS INCORPORATED BY REFERENCE

30) In the final regulations, the Documents Incorporated by Reference section has been updated to delete the inclusion of the:
    - Erosion and Sediment Control Technical Bulletin #1;
    - Virginia Runoff Reduction Method Spreadsheet; and
    - Virginia Runoff Reduction Method Spreadsheet – Redevelopment.

    It was recognized by the RAP that the Virginia Runoff Reduction Method Spreadsheets will need to updated as additional BMPs are approved for use by the department. The technical bulletin has been superseded by the requirements in the water quantity section (4VAC50-60-66) and is no longer needed.

    The Technical Memorandum has been replaced with the Virginia Runoff Reduction Method: Instructions and Documentation, March 28, 2011.

Issues

Please identify the issues associated with the proposed regulatory action, including:
1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;
2) the primary advantages and disadvantages to the agency or the Commonwealth; and
3) other pertinent matters of interest to the regulated community, government officials, and the public.
If there are no disadvantages to the public or the Commonwealth, please indicate.

The primary advantage of this regulatory action is enhanced water quality and management of stormwater runoff in the Commonwealth. Citizens often complain about flooding caused by increased amounts of stormwater runoff and the runoff is also a contributor to excessive nutrient enrichment and sedimentation in numerous rivers, lakes, and ponds throughout the state, as well as a continued threat to estuarine waters and the Chesapeake Bay. The water quality and quantity criteria established by this regulatory action will improve upon today’s stormwater management program and assist the Commonwealth in reducing nutrient and sediment pollution statewide and meeting Chesapeake Bay restoration goals. The regulations will have numerous benefits including reductions in flood risk, avoidance of infrastructure costs through the use of LID practices, improved aquatic life, and enhancement of recreational and commercial fisheries.

The implementation of local stormwater management programs will also have benefits for the regulated community. Today, construction activity operators must go to two sources in order to receive needed Erosion and Sediment Control (locality) and Stormwater (department) approvals. The development of local stormwater management programs will allow for both approvals to be received from a singular source, thus improving efficiency as well as saving time for the developer. Even in localities where the department is the stormwater program administrative authority, the program envisioned by these regulations will allow for greater customer service and oversight over today's more limited program.

The primary disadvantage of this regulatory action will be increased compliance costs in some instances for construction site operators. However, the final regulations have been modified in a number of ways to significantly reduce the fiscal impacts associated with compliance with the water quality and quantity technical standards and it is believed that the final regulations represent a reasonable balance between necessary water quality and quantity improvements and potential economic concerns. It should be noted that the offsite compliance options will help moderate compliance costs. It is anticipated that before the implementation of these regulations in 2014 that nutrient trading opportunities will be greatly expanded.

Changes made since the last published final stage on January 4, 2010

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar's office, please put an asterisk next to any substantive changes.

This will be the third set of final regulations adopted by the Virginia Soil and Water Conservation Board for this regulatory action. This document will discuss the changes from the last final version of the regulations (adopted December 9, 2009 and published January 4, 2010) and that was suspended by the Virginia Soil and Water Conservation Board (Board) in response to 25 petitions (January 14, 2010) to the current version of the regulations that was unsuspended and adopted by the Board on May 24, 2011. A public record of the documents related to the prior two final actions may be found on the Commonwealth's Regulatory TownHall and the Department of Conservation and Recreation's website at: http://www.dcr.virginia.gov/lr2d.shtml.

This approach was followed based on advice received from the Economic & Regulatory Analysis Division at the Department of Planning and Budget as well as the Registrar's Office.

Section number	Requirement at last published final stage	What has changed	Rationale for change
4VAC50-60-10	Section 10 contains definitions that are applicable throughout the VSMP regulations.	Additional new terms and definitions have been added, including: "Chesapeake Bay Preservation Act Land-Disturbing Activity" "Flood-prone area" "Layout" "Localized flooding" "Main channel" "Stormwater program administrative authority" Further revisions are made to the definitions for the following terms: "Channel" "Development" "Flood fringe" "Floodplain" "Floodway" "Impervious cover" "Land disturbance" "Large construction activity"	A definition of "Chesapeake Bay Preservation Act Land-Disturbing Activity" was added, as that term is now utilized to describe land disturbing activities greater than or equal to 2,500 sq. ft and less than one acre that will be subject to local controls and not the construction general permit requirements. A definition of "flood prone area" was added, as that term is now utilized in determining water quantity requirements. A definition of "layout" was added, as that term is now utilized as one of the provisions in determining whether a project is grandfathered. A definition of "localized flooding" was added, as that term is now utilized in determining water quantity requirements.

		"Local stormwater management program" "Natural channel design concepts" "Permit-issuing authority" "Post development" "Qualified personnel" "Qualifying local stormwater management program" "Runoff characteristics" "Runoff volume" "Site" "Small construction activity" "State/EPA agreement" "Stormwater conveyance system" "Stormwater discharge associated with construction activity" "Stormwater management facility" "Stormwater pollution prevention plan" "Surface waters" The following terms have been deleted from this section but have been added to a new section in Part IIC (4VAC50-60-93.1) where they will apply only to the current criteria that grandfathered projects will be subject to "Adequate channel" "Aquatic bench" "Average land cover condition" "Bioretention basin" "Bioretention filter" "Constructed wetlands" "Development" (not deleted just defined differently) "Grassed swale" "Infiltration facility" "Nonpoint source pollutant runoff load" "Planning area" "Sand filter" "Shallow marsh" "Stormwater detention basin" "Stormwater extended detention basin" "Stormwater extended detention basin – enhanced"	A definition of "main channel" was added to help clarify "flood-prone area" and "stormwater conveyance system" definitions. A definition of "stormwater program administrative authority" was added, as that term is used throughout Parts II and III to define the entity administering the stormwater management program or the Virginia Stormwater Management Program. A further revision was made to the definition of "channel" to simplify the term. A further revision was made to the definition of "development" to specify certain types of activities are exempt from these regulations. Further revisions were made to the definitions of "flood fringe", "floodplain", and "floodway" in order to increase clarity in meeting the water quantity requirements. A further revision was made to the definition of "impervious cover" to simplify the term. A further revision was made to the definition of "land disturbance" to include those projects meeting the criteria of a Chesapeake Bay Preservation Act Land-Disturbing Activity. A further revision was made to the definition of "large construction activity" to conform to the federal definition. A further revision was made to the definition of "local stormwater management program" to more closely conform the term to the language in the Code of Virginia and to add additional clarity. A further revision of "natural channel design concepts" was made to clarify what the

		"Stormwater retention basin" "Stormwater retention basin I" "Stormwater retention basin II" "Stormwater retention basin III" "Vegetated filter strip" "Water quality volume" The following terms have been deleted from this section as they are no longer used: "Stable" "Stormwater management standards" "Unstable" "Urban development area" The following terms have been combined into a single definition of "stormwater conveyance system": "Manmade stormwater conveyance system" "Natural stormwater conveyance system" "Restored stormwater conveyance system"	engineering analysis should be based on. A further revision of "permit-issuing authority" was made to conform the definition with the language in the Code of Virginia. A further revision of "post development" was made to add clarity and to conform with the changes in the use of the term "site". A further revision was made to "qualified personnel" to add clarity and to conform the definition to federal qualifications. "Qualifying local stormwater management program" was revised to add clarity and to remove references associated with a locality issuing coverage under the VSMP general permit. "Runoff characteristics" was revised to add clarity and to more clearly conform with the stormwater management plan and water quantity computational requirements associated with a "land-disturbing activity". "Runoff volume" was revised to add clarity and to conform with the changes in the use of the term "site". "Site" was revised to add clarity and to conform with federal regulations. "Small construction activity" was revised to limit the definition to those construction activities resulting in land disturbance equal to or greater than one acre. "State/EPA agreement" was revised to clarify that the regional administrator mentioned in the definition is from EPA.

			"Stormwater conveyance system" has been revised to include definitions for "manmade stormwater conveyance system", "natural stormwater conveyance system", and "restored stormwater conveyance system" into a single definition to add clarity and make the definition easier to read. "Stormwater discharge associated with construction activity" has been revised to specify the discharge of stormwater runoff rather than a discharge of "pollutants in" stormwater runoff. This broadens the concept to apply to both water quality and quantity aspects of runoff. "Stormwater management facility" has been revised to add clarity. "Stormwater management plan" has been revised to clarify the contents of a plan. "Stormwater pollution prevention plan" has been further revised to better outline its components. "Surface waters" was revised to make clerical changes associated with the consistent use of abbreviations.
4VAC50-60-20	This section sets out the overall purposes of the Virginia Stormwater Management Program (VSMP) Permits regulations.	Changes made to this section include: the board's procedures for approving the administration of a local stormwater management program; a reference to the Virginia Stormwater Management Program; the deletion of the reference to the components of a stormwater management program or stormwater management standards; and the inclusion of a reference to the technical criteria requirements for land disturbing activities.	Revisions made to this section more closely align the purpose of this section with the Code of Virginia and Parts II and III of these regulations.
4VAC50-60-30	This section lists the entities and projects that are subject to the Board's regulations pursuant to the Code of Virginia.	Clarifying language was added specifying that the board's regulations apply to the department in administration of the Virginia Stormwater Management Program, to every MS4 program,	Changes made to this section add clarity to the applicability of these regulations.

		and to every locality that administers a local stormwater management program.	
4VAC50-60-40	This section sets forth the board's authority for the requirements of Part II and relates the applicability of the technical criteria established to the standards and procedures established by local stormwater management programs.	Changes made to this section include: removing the reference to the minimum technical criteria for a local stormwater management program and then including a reference to the standards and procedures for local stormwater management programs.	Revisions made to this section more closely align the purpose of this section with the Code of Virginia and Parts II and III of these regulations.
4VAC50-60-45	This section established the applicability of the proposed regulations. The regulations are applicable to any state agency, qualifying local program or department-administered local stormwater management program.	The previous language in this section has been stricken. This section now includes the implementation timeframe for the new criteria. The regulations will not be implemented until such time as a VSMP General Permit for Discharges of Stormwater from Construction Activities is issued that incorporates the updated criteria.	This new section clearly states the board's intended timeframe to implement the new technical criteria. This section was added for clarity.
4VAC50-60-46	This is a new section; however, the language was previously found in 4VAC50-60-53. The language sets forth the goals and general objectives of Part II, and also specifies that all control measures must be employed in a manner which minimizes impacts on receiving state waters. More specific requirements were set forth in later sections within Part II.	Other than relocating this section, no changes have been made from the previous final version of the regulations.	The section was relocated as part of a general reorganization of the Part to improve the regulation.
4VAC50-60-47	This is a new section; however, the language was previously found in 4VAC50-60-56. This language clarifies that nothing in these regulations limits the applicability of other laws and regulations (not just the Erosion and Sediment Control Law and Regulations), nor do they limit the ability of other agencies or local governments to impose more stringent requirements as allowed by law. Separately setting this information out in its own section was intended to increase clarity	Other than relocating this section, no changes have been made from the previous version of the regulations.	The section was relocated as part of a general reorganization of the Part to improve the regulation.

	concerning the interaction of these regulations and other laws, regulations, and authorities.		
4VAC50-60-47.1	This is a new section; however, the concept included in this section had been partially included in the existing section 4VAC50-60-48 on grandfathering. The language provides additional specified time to complete construction for certain land-disturbing activities.	Land disturbing activities that have received general permit coverage shall remain subject to the technical criteria in place at the time of initial permit coverage and shall remain subject to those criteria for an additional two permit cycles as long as permit coverage is maintained. Any portions of the project not completed after the additional two permit cycles have passed shall become subject to new technical criteria.	It was determined by the department that this was more of an administrative procedure, rather than a true grandfathering exemption and was therefore moved into its own section. The provisions in this section are more stringent than the current operating practices of the state.
4VAC50-60-48	This section provides exemptions from having to meet the new technical criteria to certain projects provided they meet certain requirements. The prior language paralleled local vesting standards.	The concept in existing subsection A has been moved to 4VAC50-60-47.1 as mentioned above. Existing subsection B (which is now subsection A) has been reworked to add additional clarity and ease of use. The new language in subsection A allows any land-disturbing activity that has received local approval of a valid proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any equivalent document, prior to July 1, 2012, to continue to meet the existing technical criteria until 2019. Any portions of the project not completed by 2019 will be subject to new technical criteria. The new subsection B specifies that locality, state, or federal projects which have had funds obligated to them prior to July 1, 2012, will be subject to the existing technical criteria. Any portions of the project not completed by 2019 will be subject to new technical criteria. Subsection D contains grandfathering provisions applicable to projects which have received governmental bonding or public financing. Finally, subsection E allows an operator to construct to a more stringent standard at their discretion.	Many of the concepts of this section have remained the same as the previous version of the regulations. The revisions to this section add greater clarity and ease of understanding for the regulated public and still ensure that projects that qualify for grandfathering do not need to redesign to changing standards which would cause hardships.
4VAC50-60-50	This section was previously proposed to be deleted. Most of the	This section remains deleted in the final regulations.	No change was made from the last published version of the regulations; the section remains

	provisions of the current section were proposed to be incorporated into other sections of the regulations where similar provisions are located.		deleted.
4VAC50-60-51	This is a new section. Previously projects greater than 2,500 square feet to less than one acre in Chesapeake Bay Preservation Act jurisdictions were considered "small construction activities" and were regulated as such.	This section removes the requirement that small sites (greater than 2,500 square feet to less than one acre) in Chesapeake Bay Preservation Act jurisdictions must receive general permit coverage. A Chesapeake Bay Preservation Act land-disturbing activity must meet the specified provisions of these regulations, but are now not required to receive coverage under the General Permit for Discharges of Stormwater from Construction Activities. These activities are still required to meet the water quality and water quantity provisions in sections 4VAC50-60-63 and 66 as well as other applicable standards.	The new language removes the burden of meeting federal permitting requirements for small sites. The sites are still subject to state regulations and local ordinances, as they are today. The inclusion of this language continues today's permitting process, but does require these sites to meet the technical criteria in these regulations.
4VAC50-60-53	Language previously in this section has been moved to 4VAC-50-60-46 and is discussed above. New language has been added to this section related to the applicability of Part II A.	New language has been added to this section informing regulated entities that the provisions of Part II A are applicable to all regulated land-disturbing activities.	This section clarifies that all land disturbing activities are subject to Part II A.
4VAC50-60-54	This is a new section.	This section details all the requirements of a stormwater pollution prevention plan (SWPPP). A stormwater pollution prevention plan must include: an approved erosion and sediment control plan, an approved stormwater management plan; and a pollution prevention plan. The SWPPP must include any additional control measures that may be required as a result of a State Water Control Board approved TMDL (Total Maximum Daily Load). Additionally, the SWPPP must address the requirements of the federal effluent limitation guidelines which are mainly additional erosion and sediment control measures utilized during construction. The SWPPP must also be amended as needed and be available for review either onsite or have notice of where it may be reviewed posted onsite.	This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects. Language concerning TMDL compliance was previously located in 4VAC-50-60-63 but was moved to this part as it is applicable to construction and not postconstruction. The federal effluent limitation guidelines were adopted by the U.S. Environmental Protection Agency early last year. The state must adopt the same regulations this summer. The requirement that the SWPPP be amended as needed and be available for review is a current provision of the general construction permit.

4VAC50-60-55	This is a new section; however, much of these requirements were in the previous version of the regulations in 4VAC50-60-108. This language outlines the requirements of a stormwater management plan.	This section outlines the requirements of a stormwater management plan. This section requires that a plan be submitted for review and approval prior to the commencement of any land disturbing activity. Language was added related to the submittal of construction record drawings from 4VAC50-60-114.	This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects. Most of the language was previously located in 4VAC50-60-108. There have been a few revisions to the language to add clarity. Subsection D was moved from 4VAC50-60-114.
4VAC50-60-56	Language previously in this section has been moved to 4VAC50-60-47 and is discussed above. New language has been added to this section associated with pollution prevention plans.	This section has been revised. The section now speaks to pollution prevention plans. A plan for implementing pollution prevention measures during construction is required and must be updated and implemented. The prevention measures must detail the design, installation, implementation, and maintenance of effective prevention measures. This section also prohibits the discharge from dewatering activities unless managed by appropriate controls.	This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
4VAC50-60-57	This is a new section.	This section explains how an exception to the requirements of Part II B or II C may be requested. A request for an exception to Part II B or Part II C may be submitted in writing to the stormwater program administrative authority. The reason for requesting the exception must be included. It is stated that an exception to the requirement for the land disturbing activity to receive general permit coverage will not be granted. There is an existing section (4VAC50-60-122) that also addresses exceptions.	This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
4VAC50-60-58	This is a new section.	This section addresses the issue of long-term maintenance, a recorded instrument (maintenance agreement or similar document) must be submitted to the stormwater program administrative authority.	This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects. The concepts included in this section are not new to this regulation. Previously, maintenance agreements were required in 4VAC50-60-124. The requirements are now in section 4VAC50-60-112.
4VAC50-60-59	This is a new section; however, this language was previously included in	This section requires that the operator for a land disturbing activity must submit a complete	This section was included in the regulations to ensure that the requirements to receive and

	4VAC50-60-112. This language requires that an operator must submit a complete and accurate registration form to the stormwater program administrative authority.	and accurate registration statement to the stormwater program administrative authority.	maintain general permit coverage were clearly stated for regulated projects.
4VAC50-60-60	This section, which had contained the water quality requirements of Part II, was previously proposed to be deleted. New water quality criteria and compliance methods were proposed to be established in 4VAC50-60-63 and 4VAC50-60-65 (both discussed below).	This section remains deleted in the final regulations. It is of note that this language has been included in new section 4VAC50-60-96 of the final regulations, as it is available for use to projects that meet the conditions specified in sections 4VAC50-60-47.1 and 48.	The section remains deleted.
4VAC50-60-62	This is a new section. New language has been added to this section related to the applicability of Part II B.	This section establishes that the minimum technical criteria in this sub-Part are to be employed by a state agency in accordance with an implementation schedule set by the board, or by a stormwater program administrative authority that has been approved by the board, to protect the quality and quantity of state waters from the potential harm of unmanaged stormwater runoff resulting from land-disturbing activities	This section sets out the applicability of Part II B.
4VAC50-60-63	In the previous published version of these regulations, this section would revise the water quality criteria required to be met by land-disturbing activities. Rather than the current performance-based and technology-based methods, compliance would be achieved in accordance with the methods set out in new section 4VAC50-60-65 (discussed below). Water quality requirements for new development projects are as follows: 1) New Development. Under this section, new development projects (those other than projects occurring on prior developed lands, discussed below) must achieve a phosphorus loading of 0.45 lbs. per acre per	This section has been revised. The water quality standards for new development projects shall not exceed 0.41 pounds of phosphorus per acre per year. The water quality standards for development on prior developed lands are as follows: 1) On sites disturbing greater than or equal to one acre that result in no net increase in impervious cover, the total phosphorus load must be reduced by at least 20% below the predevelopment total phosphorus load. 2) On sites disturbing less than one acre that result in no net increase in impervious cover, the total phosphorus load must be reduced by at least 10% below the predevelopment total phosphorus load. 3) On sites that result in a net increase in	The water quality design standards have been revised to address a shift in the scientific basis behind the standards. The standards are now based on scientific studies relating to the impervious cover and water quality. The 0.41 standard represents approximately 10% impervious cover. The redevelopment standards have been revised to take the impervious cover into account. Other revisions were made to add clarity and ease of understanding of the regulations.

	year. As new data is being developed regarding necessary pollutant reductions related to the Chesapeake Bay, this standard applies statewide and a separate regulatory action will be undertaken to address standards for the Bay watershed in the future. Should such an action result in a more stringent standard being adopted within the Bay watershed, then within Urban Development Areas, a qualifying local program may establish a standard of no greater than 0.45 pounds per acre per year to be applied to projects that disturb greater than or equal to one acre, based upon factors set forth in subdivision (1)(a). 2) Redevelopment. The phosphorus reduction requirement for redevelopment projects that disturb less than one acre was relaxed to a requirement that the post-development load be reduced to an amount at least 10% below the predevelopment load. Redevelopment projects that are greater than or equal to one acre in land disturbance continue to be subject to the proposed 20% reduction requirement. In any case, the post-development load of a redevelopment project is not required to be reduced to below the applicable standard for a similarly-situated new development project unless a more stringent standard has been established by a qualifying local program.	impervious cover over the predevelopment condition, the design criteria for new development shall be applied to the increased impervious area. Depending on the area of disturbance, criteria mentioned above will be applied to the remainder of the site. 4) Linear development projects may choose to use the new development standard or reduce the total phosphorus load by at least 20% below the predevelopment total phosphorus load. 5) Unless a more stringent standard has been developed by a local stormwater management program, no development on prior developed lands shall be required to reduce the total phosphorus load below the new development standard. The TMDL language was relocated to 4VAC50-60-54 as the language is applicable to construction and not post-construction. Additional language stating that the department will review the water quality design standards upon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan has been added.	

	The last published regulation also includes a clarifying amendment in the opening paragraph to specify that the requirements of this section are intended to control stormwater pollutants. It also included a clarifying statement in subsection 5 that provides that nothing in this section prohibits a qualifying local program from establishing a more stringent standard. The TMDL provisions of this section were retained.		
4VAC50-60-65	In place of the performance-based and technology-based criteria of the existing regulations, the language as last published provided that compliance with the water quality criteria contained in 4VAC50-60-63 is determined by utilizing the Virginia Runoff Reduction Method. The Method seeks to reduce both runoff and pollutants from the site. Similar to the current approach, compliance is ultimately achieved through the implementation of BMPs on the site. The Method and the last published language, however, allowed for an expanded and innovative set of practices. Efficiencies for various types of BMPs were also updated based on today's science. The list of available BMPs will continue to be augmented through the further development of the Virginia Stormwater BMP Clearinghouse website. The Clearinghouse will be staffed by the Department (and Virginia Tech's Virginia Water Resource Research Center) and an advisory committee on a continual	This section has been revised. Table 1 has been removed. The BMPs that are currently approved for use have been listed with version numbers. All of the BMP design specifications, nutrient reductions, and efficiencies are located on the Virginia Stormwater BMP Clearinghouse website. Additional equivalent methodologies that are approved by the board are available for use in meeting the water quality design criteria. This is a slight change from the previous version in that the local program no longer has to bring the methodology to the board for approval; anyone is able to bring another methodology to the board for approval. Subsection E that formerly spoke to land disturbance on a portion of a site was removed as it was no longer applicable with the modification made to the definition of "site".	This section has been revised to add greater clarity and ease of use by regulated projects.

	basis, and will allow for the submission and approval of new designs and efficiencies for stormwater BMPs. Overall, this was intended to allow greater flexibility for developers and better site planning and design. If, however, a particular type of BMP is unsuitable for use in a locality due to soil types, etc., subsection D did allow for use limitations to be put in place with justification to the Department. In the event that a qualifying local program desires to do so, last published language in 4VAC50-60-65 additionally allowed compliance to be achieved through the use of another methodology that is demonstrated to achieve equivalent or more stringent results and is approved by the board.		
4VAC50-60-66	The last published language contained refined channel protection and flood protection criteria. The overall water quantity requirements were designed to meet the mandate of §10.1-603.4(7), which requires the replication, as nearly as practicable, of the existing predevelopment runoff characteristics and site hydrology, or improvement upon the contributing share of the existing predevelopment runoff characteristics and site hydrology if stream channel erosion or localized flooding is an existing predevelopment condition. The channel protection criteria of this section vary depending upon which type of conveyance system stormwater is being discharged to:	This section has been revised. Many of the provisions of the previous regulations are retained. Under channel protection, there are now three situations rather than four. Discharges may be to a manmade, restored, or natural stormwater conveyance system. For discharges to a manmade system, the requirements are the same as the previous version. For discharges to a restored system, the requirements are similar. The discharge must be consistent with the design parameters of the restored system and the system must be functioning as designed. For either of the two situations above, the energy balance equation is left as an option for compliance. Discharges to a natural system are no longer subdivided into stable and unstable systems. To calculate the discharge of a 1-year 24-hour storm to a natural channel, the energy balance equation or equivalent board approved methodology	This section has been revised to add clarity and to increase the “readability” of this section of the regulations. Many of the requirements are similar to the previous version of the regulations. The limits of analysis have been more clearly defined.

	manmade, restored, stable natural, or unstable natural. The flood protection requirements likewise vary based on the same list of systems. For channel protection purposes, a "good pasture" condition is utilized, unless the predevelopment condition is forested, in which case the forested condition is utilized. Additionally, an allowance for discharges of concentrated stormwater to unstable channels from redevelopment projects of less than five acres or from new development projects of less than one acre to utilize the pre-developed condition of the site in determining the post-development channel protection requirements for the site, rather than the forested condition has been included. For the purposes of flood protection, a "good pasture" condition is utilized, unless the predevelopment condition is forested, in which case the forested condition is utilized. Additionally, an allowance for discharges of concentrated stormwater to unstable channels from redevelopment projects of less than five acres or from new development projects of less than one acre to utilize the pre-developed condition of the site in determining the post-development flood protection requirements for the site, rather than the forested condition has been included. An exception to these channel	must be utilized. An improvement factor has been added to the equation, either 0.8 or 0.9 depending on the acreage of the site. A section on the limits of analysis has been included in the channel protection subsection. For flood protection, there are now two situations, either localized flooding exists or it does not. If a stormwater conveyance system does not have flooding, then the postdevelopment peak flow rate from the 10-year 24-hour storm event must be contained in the system. If the system currently experiences flooding, then the postdevelopment peak flow rate from the 10-year 24-hour storm must be confined or released at a rate that is less than the predevelopment peak flow rate. A limits of analysis section for flood protection has been added. The limits of analysis includes a provision that allows analysis to stop if the system enters a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality. References to Technical Bulletin #1 have been removed. Additionally, language has been added that states that compliance with this section will be deemed to satisfy the requirements of Minimum Standard #19 of the Virginia Erosion and Sediment Control regulations.	

	protection and flood protection requirements was contained in subsection D, which exempts certain sites based upon area and peak flow rate increase. If a site is exempted from water quantity requirements under the "one percent rule" contained in subsection D, then no analysis under subsection H is required has been included. For discharges that consist of sheet flow (i.e., stormwater discharged over a broad surface area rather than to a conveyance system), subsection E required that those discharges be evaluated and diverted to a detention facility or conveyance system if necessary to protect downstream properties or resources. This section also states that nothing in this section prohibits a qualifying local program from establishing a more stringent standard.		
4VAC50-60-69	This section includes the offsite options that may be utilized to address the water quality or water quantity requirements. Options include: comprehensive stormwater management plans, pro rata fee programs, nutrient offsets, developer options, and a state buy-down program.	Chapter 523 of the 2011 Virginia Acts of Assembly (SB1099) updates offsite options in meeting the water quality requirements of these regulations. This section has been rewritten to comply with that legislation. Offsite options are required to achieve the necessary nutrient reductions prior to the commencement of the land disturbing activity, with delayed effective dates for certain localities. There are several situations that allow an operator to immediately choose offsite compliance options including: less than 5 acres will be disturbed, the postconstruction phosphorus nutrient reduction is less than 10 pounds per year, or at least 75% of the required phosphorus nutrient reductions are achieved onsite. Additionally,	Legislation (SB1099) was passed in 2011 regarding offsite options in meeting the water quality requirements of these regulations. This section has been rewritten to comply with that legislation.

		the state buy-down option has been removed.	
4VAC50-60-70	This section was deleted in its entirety. New water quantity criteria, including channel protection criteria, were established in 4VAC50-60-66 (discussed above).	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-72	This section establishes the design storm requirements used to meet the requirements in sections 4VAC50-60-65 and 66. Prescribed design storms are the 1, 2, and 10 year 24 hour storms using the site-specific rainfall precipitation frequency data recommended by the US National Oceanic and Atmospheric Administration (NOAA) Atlas 14. NRCS synthetic 24 hour rainfall distribution and models, hydrologic and hydraulic methods developed by the US Army Corps of Engineers, or other standard methods shall be used to conduct any analyses. The Rational Method and Modified Rational Method may be utilized with the approval of the local program; however, use of these methods is proposed to be limited to drainage areas of 200 acres or less, as it is believed that this is the maximum drainage area for which these methods can be reliably used.	Minor revisions have been made to subsection D (and a new E) to further clarify that both the Rational Method and the Modified Rational Method may be utilized for drainage areas of 200 acres or less.	The revisions made were to increase the clarity of the regulations.
4VAC50-60-74	The section notes the Board's encouragement of (but does not impose requirements for) stormwater harvesting to the extent that such uses of captured stormwater is permitted by other authorities. This is consistent with section 10.1-603.4(9), which was added to the Code of Virginia following the 2008 General Assembly.	One minor revision was made to this section. The terms "regulatory authority" was changed to "regulations".	The revision to this section was made to increase clarity.
4VAC50-60-76	The proposed section specifically	No changes were made from the previous final	No changes were made from the previous final

	explains that unless exempt pursuant to section 10.1-603.8(B), linear development projects must address stormwater runoff in accordance with the VSMP regulations.	published version of the regulations.	published version of the regulations.
4VAC50-60-80	This section was deleted in its entirety in the previous published version of the regulations. New water quantity criteria for all sites, including flood protection criteria, were proposed to be established in 4VAC50-60-66 (discussed above).	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-85	This section explains the design and placement requirements for permanent stormwater management facilities. There are requirements that stormwater management wet ponds and extended detention ponds not subject to the Virginia Impounding Structure Regulations be engineered for structural integrity for the 100-year storm event, and that prior to the construction of stormwater management impoundment structures or facilities in a karst area a study of the geology and hydrology must be completed.	This section has been revised. Subsections A and B have been stricken. No other changes have been made to this section.	Both of the subsections that were stricken in this section are under the purview of other state programs and the language was deemed to be unnecessary.
4VAC50-60-90	This section was deleted in its entirety. Regional stormwater management plans were renamed "comprehensive watershed stormwater management plans" and have been relocated to 4VAC50-60-92.	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-92	This section contains the provisions related to comprehensive stormwater management plans.	Several administrative amendments were made to this section to conform the language to revised definitions. Specifically, "qualifying local programs" has been revised to "local stormwater management programs" to conform with definitional revisions. "Watershed" has been stricken from the term "comprehensive	The majority of the revisions to this section were to conform terms used in this section to the definitional changes that were made in 4VAC50-60-10. It was determined that the term "document" was more appropriate than "account for" in subsection

		stormwater management plan" to conform to the definition. It should also be noted that state and federal agencies are allowed to develop these plans, although the plans may not be on a watershed basis. Instead of accounting for nutrient reductions in the plan, the local stormwater management programs must document the necessary nutrient reductions.	3.
4VAC50-60-93	This section has been reserved.	This section remains reserved.	This section remains reserved.
4VAC50-60-93.1	This is a new section containing definitions related to Part II C. These definitions were stricken in the previous version of the regulations in 4VAC50-60-10.	The following definitions have been added: "adequate channel", "aquatic bench", "average land cover condition", "bioretention basin", "bioretention filter", "constructed wetlands". "development", "grassed swale", "infiltration facility", "nonpoint source pollutant runoff load", "planning area", "sand filter", "shallow marsh", "stormwater detention basin", "stormwater extended detention basin", "stormwater extended basin-enhanced", "stormwater retention basin", stormwater retention basin I", "stormwater retention basin II", "stormwater retention basin III", vegetated filter strip", and "water quality volume". These definitions have not been revised from the existing definitions; they have just been added to this new section.	This section was created to include the relevant existing definitions into Part II C, the "grandfathered" projects section. These definitions have not been revised from the existing definitions. It will increase the clarity and understanding of this Part of the regulations to have these definitions included.
4VAC50-60-94	This section specifies the applicability of Part II C technical criteria. The technical criteria contained in this Part are for use by grandfathered projects only.	One revision has been made to this section from the previous regulation. The revision is purely administrative and changes the reference to "Part II B" to "Part II C".	The inclusion of sections 4VAC50-60-54, 55, 57, 58, and 59 and the revisions to section 56 warranted the development of a new Part II A. The previous version of the regulations contained a Part II A and Part II B. By including the new sections in Part II A, a Part II C has now been included. Part II C now contains the grandfathered projects' technical criteria.
4VAC50-60-95	This section contains the General requirements of the existing regulations.	One revision has been made to in this section to include locality ordinances in addition to applicable laws and regulations in subsection D.	In subsection D, it was noted that locality ordinances had been excluded in previous versions of the regulations. All regulated projects must comply with local ordinances as well as applicable laws and regulations.

4VAC50-60-96	This section contains the water quality requirements of the existing regulations. Minor amendments were made to allow use of BMPs found in Table 1 of 4VAC50-60-65 and BMPs found on the Virginia Stormwater Management BMP Clearinghouse website.	Several administrative changes have been made to this section. As Table 1 has been stricken in 4VAC50-60-65, the table is this section has been renamed Table 1. Additionally, the term "local program administrator or the department" has been replaced with "stormwater program administrative authority" to match definitional revisions in 4VAC50-60-10.	Only administrative revisions have been made to this section, either to conform to definitional revisions or administrative numbering.
4VAC50-60-97	This section contains the stream channel erosion requirements of the existing regulations	Administrative revisions have been made to this section. The term "permit-issuing authority" has been revised to "stormwater program administrative authority" or to "local stormwater management program" to conform to definitional revisions in 4VAC50-60-10.	Administrative revisions have been made to this section. The term "permit-issuing authorities" has been revised to "stormwater program administrative authorities" or to "local stormwater management program" to conform to definitional revisions in 4VAC50-60-10.
4VAC50-60-98	This section contains the flooding requirements of the existing regulations.	No changes were made from the previous final published version of the regulations.	No changes were made from the previous final published version of the regulations.
4VAC50-60-99	This section allows water quality and, where allowed, water quantity requirements of Part IIB to be met through the offsite provisions of sections 4VAC50-60-69 and 92.	The word "requirements" has been added after both water quality and water quantity to add clarity to the regulations.	The word "requirements" has been added after both water quality and water quantity to add clarity to the regulations.
4VAC50-60-100	This section was deleted in its entirety in the previous published version of the regulations.	This section has been revised to explain the applicability of Part III. This section specifies that the Part contains the board's procedures for the authorization of a qualifying local program, the board's procedures for the administration of a local stormwater management program operated by an authorized qualifying local program, and the board's procedures for utilization by the department in administering the Virginia Stormwater Management Program in localities where no qualifying local programs exist.	This section has been revised to include the applicability statements for Part III. Much of the language used in this section was removed from 4VAC50-60-102 and added to this section.
4VAC50-60-102	This section explains the authority the board has to approve a local stormwater management program in accordance with the Virginia Stormwater Management Act as a qualifying local program.	One paragraph of this section was removed, revised, and added to 4VAC-50-60-100.	One paragraph of this section was removed, revised and added to 4VAC50-60-100. The separation of the authority and applicability sections adds clarity to this Part.
4VAC50-60-103	This is a new section.	This section has been included to clearly	This section has been added to ensure that

		explain the administrative requirements of a stormwater program administrative authority concerning Chesapeake Bay Preservation Act land disturbing activities. This section requires that a permit be issued to the land disturbing activity (although the activity does not have to receive general permit coverage), all program requirements in 4VAC-50-60-104 be applicable, plan review requirements in 4VAC-50-60-108 (except subsection D) be met, long-term maintenance requirements in 4VAC-50-60-112 be met, inspection requirements in 4VAC-50-60-114 (except subsection A3 and A4) be met, enforcement components in 4VAC-50-60-116 be applicable, hearing requirements of 4VAC-50-60-118 be applicable, exception conditions in 4VAC-50-60-122 be met (except subsection C), and the reporting and record keeping requirements in 4VAC-50-60-126 be met (except subsection B3). Local stormwater management programs will be required to adopt ordinances that incorporate the components of this section.	smaller sites are still subject to state regulations and local ordinances, as they are today. The inclusion of this language discontinues today's general permitting process for these small sites, but does require stormwater program administrative authorities to review plans, inspect and enforce on these activities, and report information related to these activities.
4VAC50-60-104	This section explained that all qualifying local programs must require compliance with the provisions of Part II of the regulations and must comply with 4VAC50-60-460(L), stated that more stringent criteria established by localities will be considered by the Department in its review of state projects within that locality, and explained that nothing in Part III A is to be construed as giving regulatory authority over state projects to a locality.	This section has been revised slightly. The term "qualifying local programs" has been revised to "stormwater program administrative authorities" to conform with the definitional changes in 4VAC50-60-10. In subsection C, federal projects have been included with state projects. A subsection D regarding performance bonds or other financial surety has been added which was previously located in 4VAC50-60-106.	The revisions to this section are administrative in nature. Terms have been revised to conform with definitional revisions and one subsection has been relocated to add clarity.
4VAC50-60-106	This section sets forth the administrative requirements for a qualifying local program. These include identification of various authorities who will be responsible	This section has been revised. The components of this section have been relocated 4VAC50-60 148. This section now requires a local stormwater management program to adopt ordinances that ensure	This section has been revised. Specifically explaining the requirements of local ordinances to meet these two provisions has added clarity.

	for different portions of the program, program procedures, adoption of an ordinance, and reporting (which is further outlined in 4VAC50-60-126). The section also notes the ability of a qualifying local program to require a performance bond or other surety in accordance with the Stormwater Management Act	compliance with 4VAC50-60-460L. Additionally, any adopted local ordinances must be at least as stringent as the construction general permit.	
4VAC50-60-108	This section sets forth specific requirements for review of stormwater management plans by qualifying local programs. This includes not only review procedures to be employed by the qualifying local program, but also the requirements for a complete stormwater management plan, which must be signed and sealed by a professional. The section also permitted a qualifying local program to allow for a less extensive initial stormwater management plan to be submitted for initial clearing and grading activities. The section contained procedures for modifying a previously-approved stormwater management plan (the current regulations simply state that no changes may be made to an approved plan without review and written approval by the locality). Provisions of this section also included payment of base fees and electronic communication of decisions to the operator.	This section has been revised. The requirements of a complete plan have been slightly modified and relocated to 4VAC50-60-55. The term "qualifying local program" has been revised to "stormwater program administrative authority" to conform with definitional revisions in 4VAC50-60-10. Subsection C has been stricken. It was determined that initial clearing and grading plans would not meet the requirements of the Act and as such were stricken. The new subsection C was slightly modified to reflect definitional revisions and to add clarity. A new subsection D has been added requiring evidence of VSMP permit coverage to be provided to the stormwater program administrative authority prior to any local authorization to begin land disturbance is granted. New subsection E has been created which requires construction record drawings for certain stormwater management facilities. Some of provisions of this section have been relocated from 4VAC50-60-114 in the previous version of the regulations.	There were revisions made to this section to add clarity to the regulations. Much of this section has been relocated to 4VAC50-60- 55 dealing with stormwater management plans. Terms have been revised to conform with definitional revisions. Additional language has been relocated from 4VAC50-60-114 in the previous regulations to this section to make the regulations easier to understand.
4VAC50-60-110	This section was deleted in its entirety.	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-112	This section sets forth the procedures by which a qualifying local program will be permitted to	This section has been revised. The section now establishes the requirements for long-term maintenance of permanent stormwater	This section details the provisions that a stormwater program administrative authority must make to ensure long term maintenance of

	authorize coverage under the Board's General Permit for Discharges of Stormwater from Construction Activities. This will allow for operators of regulated activities to receive both Erosion and Sediment Control and Stormwater Management permits from a single locality, rather than today's practice of receiving Erosion and Sediment Control permits from the locality and Stormwater Management permit coverage from the Department. This is intended to enhance user-friendliness and efficiency for the regulated community, and meet the Board's mandate for authorization of local programs under the Virginia Stormwater Management Act. This section also indicates that the applicant need only submit proposed right of entry agreement or easements "where required" in accordance with 4VAC50-60-124.	management facilities. A stormwater program administrative authority must require the a recorded instrument (such as a maintenance agreement) that is submitted to the program for review and approval prior to the approval of the stormwater management plan, be stated to run with the land, provide access to the property for maintenance and inspections, provide for inspections and maintenance reports to be submitted to the program and to be enforceable by all appropriate governmental parties. The section also stipulates that at the discretion of the stormwater program authority, such recorded instruments need not be required for stormwater management facilities designed to treat stormwater runoff primarily from an individual lot provided certain conditions are met.	stormwater facilities. In the previous version of the regulations, these provisions were located in 4VAC50-60-134, although they have been revised to add flexibility. Additionally, the provisions of this section are required through the new 4VAC50-60-58, which notifies the developer to comply with this section.
4VAC50-60-114	This section sets forth requirements for site inspections by qualifying local programs to ensure compliance with the Board's regulations and to ensure the long term functionality of stormwater management BMPs. First, the section requires inspections for compliance with the General Permit for Discharges of Stormwater from Construction Activities to be conducted by the qualifying local program during construction. Following construction, the person responsible for the development project or their designated agent shall be responsible for submitting construction record drawings of all	This section has been revised. Subsection A now outlines the requirements for an inspection during construction conducted by a stormwater program administrative authority. Stormwater program administrative authorities are required to inspect for compliance with the approved erosion and sediment control plan, compliance with the approved stormwater management plan, the development, updating and implementation of a pollution prevention plan and for the development and implementation of any additional control measures necessary to address a TMDL. Existing language in subsection B has been revised and relocated to 4VAC50-60-108. Language in the section has been condensed and made easier to understand. Many of the requirements remain the same as in previous versions of the	This section has been revised to add clarity and to increase user-friendliness. Many of the requirements are the same as the previous version of the regulations.

	permanent stormwater management facilities installed on the site to the qualifying local program for use in long term inspections of the facilities. The qualifying local program or its designee will then use these record drawings in conducting long term inspections in accordance with an approved inspection program that is developed by the qualifying local program. This program will ensure that all facilities are inspected at least once every five years (note the proposed section requires all qualifying local programs to establish an inspection program). The section also sets out the inspection and reporting process for the owner of the stormwater management facility.	regulation. The term "qualifying local program" has been replaced with the term "stormwater program administrative authority" to align with definitional revisions in 4VAC50-60-10. Language related to construction record drawings has been relocated to 4VAC50-60-108.	
4VAC50-60-116	Enforcement under the Virginia Stormwater Management Act and these regulations is governed specifically by statute and this section lists all potential remedies available to a qualifying local program under the Act, providing qualifying local programs with one source to find all of the authorities that are scattered in various places in the Act. In addition, this section established a recommended schedule of civil penalties for violations, which is required to be established by the Board in accordance with §10.1-603.14(A) of the Code of Virginia.	This section has been revised. The term "qualifying local program" has been revised to "stormwater program administrative authority" to align with definitional changes in 4VAC50-60-10. The table has been stricken and been replaced with a list of civil penalties. The language in section D has been revised to more closely align with the Code of Virginia. New language has been added that recognizes the board's authority to enforce the provisions of the Act and regulations. A new subsection E clearly states the department's ability to terminate general permit coverage and require individual permit coverage for failure to comply with permit conditions.	This section has been revised to more closely align with the Code of Virginia and to clearly explain the authority of the board and the department in enforcing the provisions of the Act, its regulations and the construction general permit.
4VAC50-60-118	This section observes the requirements for hearings contained within the Virginia Stormwater Management Act.	This section has been revised to more closely align with the Code of Virginia and to reflect definitional revisions in 4VAC50-60-10. The term "qualifying local program" has been replaced with "stormwater program administrative authority". It also has been	This section has been revised to reflect definitional revisions in 4VAC50-60-10 and to more closely align the requirements to the Code of Virginia.

		clarified that the right to hearing is predicated on the permit applicant or permittee being aggrieved by any action of the stormwater program administrative authority taken without a formal hearing or by inaction of the stormwater program administrative authority.	
4VAC50-60-120	This section was deleted in its entirety.	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-122	This section would allow for an exception to be administratively granted to the technical criteria contained in Part II (including the water quality and quantity criteria). Exceptions may be granted provided that certain criteria are met and a record of all exceptions granted is maintained and reported by the qualifying local program.	This section has been revised. The term "qualifying local program" has been changed to "stormwater program administrative authority" to conform with definitional changes in 4VAC50-60-10. A provision has been added that prohibits a stormwater program administrative authority from allowing the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse website. Language in subsection D has been shortened and clarified to conform with revisions in 4VAC50-60-69 related to offsite compliance options. Subsection E has been revised to only require records related to exceptions granted to be provided in accordance with 4VAC50-60-126.	This section has been revised to conform with other revisions in the regulations. Definitional changes in 4VAC50-60-10 require the use of "stormwater program administrative authority" rather than "qualifying local program". Revisions in 4VAC50-60- 69 changed the requirements in subsection D of this section.
4VAC50-60-124	The requirements for ensuring ongoing maintenance of stormwater management BMPs were located in this section. Some refinements were proposed to these requirements, including a requirement that the qualifying local program be made a party to each agreement (which will allow the program to enforce the agreement).	In this version of the regulations, this section has been stricken. The requirements related to facility maintenance have been relocated to 4VAC50-60-112.	In this version of the regulations, this section has been stricken. The requirements related to facility maintenance have been relocated to 4VAC50-60-112. This will add clarity and user friendliness to the regulations.
4VAC50-60-126	The section requires qualifying local programs to report information pertaining to stormwater management facilities installed in their jurisdictions, inspections made during the fiscal year, number of enforcement actions undertaken, and number of exceptions applied for	This section has been revised. The term "qualifying local programs" has been changed to "stormwater program administrative authority" to conform with definitional changes in 4VAC50-60-10. Reference to the VSMP general permit has been stricken as localities will be conducting inspections and other activities under local ordinances rather than the	This section has been revised to increase clarity and to align with changes made in other sections of the regulations. Additionally, the reporting requirements have been limited to the minimum necessary and limited to the information necessary to comply with federal requirements.

	and the number of exceptions granted. The section also requires permit files to be maintained for three years, inspection reports to be maintained for five years, and maintenance agreements/design standards and surveys/maintenance records for stormwater management facilities to be maintained in perpetuity unless the facility has been removed.	permit. To mirror changes made in 4VAC50-60-122, only information on exceptions granted are now required. The requirement that project files be submitted to the department has been removed and only construction record drawings are now required to be kept in perpetuity or until the facility is removed. Additionally, all registration statements are required to be kept for at least three years from the date of project completion or permit termination.	
4VAC50-60-128	The section notes that Part III B (sections 4VAC50-60-128 through 4VAC50-60-154) sets forth the criteria that will be followed by the Department in administering a local stormwater management program in a locality that is not required to adopt a qualifying local program pursuant to §10.1-603.3(A), or that does not elect to adopt a qualifying local program pursuant to §10.1-603.3(B).	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A.	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A.
4VAC50-60-130	This section was deleted in its entirety.	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-132	This section notes that a local stormwater management program administered by the Department shall, similar to a qualifying local program, require compliance with the provisions of Part II unless an exception is granted. The section also notes that the Department shall apply the provisions of the VSMP regulations when reviewing a federal project, and it finally states that nothing in the regulations shall be construed as limiting the rights of other federal and state agencies to impose stricter requirements as allowed by law.	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A
4VAC50-60-134	This section relates that, when the	This section has been stricken. As the	This section has been stricken. As the

	Department administers a local stormwater management program within a locality, the Department will be the permit issuing, plan approving, and enforcement authority; and that the Department or its designee will be the plan reviewing authority and the inspection authority. The Department shall also assess and collect fees. Finally, the Department may require the submission of a reasonable performance bond or surety in accordance with the Virginia Stormwater Management Act.	requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A.	requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A
4VAC50-60-136	This section specified that the Department will follow the same plan review procedures as required of qualifying local programs by 4VAC50-60-108. The Department shall not, however, accept initial stormwater management plans, which may be accepted by qualifying local programs.	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A
4VAC50-60-138	This section described the requirements for and process by which the Department will authorize coverage under the Board's General Permit for Stormwater Discharges from Construction Activities. This process is similar to that required to be utilized by qualifying local programs. The section does additionally note that the Board has the authority to require projects to receive individual permits (permits whose terms are drawn to apply to a singular, particular project rather than a class of similar types of projects) pursuant to 4VAC50-60-410(B)(3).	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A	This section has been stricken. As the requirements for local stormwater management programs and the department-administered program are the same, the requirements for both types of programs have been combined into Part III A

4VAC50-60-140	This section was deleted in its entirety.	This section remains deleted in the final regulations.	No changes were made from the previous final published version of the regulations. The section remains deleted.
4VAC50-60-142	This section noted that inspections, enforcement actions, hearings, exceptions, and stormwater management facility maintenance shall be conducted by the Department when it is operating a local stormwater management program in the same manner as those tasks will be performed by a qualifying local program under the applicable sections contained in Part III A.	This section has been revised. This section now begins Part III B. In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section is now related to the authority and applicability related to the department's review of local stormwater management programs. The language was relocated from 4VAC50-60-156 in the previous regulations. No changes were made to that language.	This section has been revised. This section now begins Part III B. In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section is now related to the authority and applicability related to the department's review of local stormwater management programs. The language was relocated from 4VAC50-60-156 in the previous regulations. No changes were made to that language.
4VAC50-60-144	This is a new section.	This section relates to local stormwater management program review including how often a local program may be reviewed, the criteria by which the program will be reviewed, and the timeframe for board action.. Much of the language has been relocated from 4VAC50-60-157 of the previous regulations, although more detail has been provided related to the criteria by which the program will be reviewed. The term "qualifying local program" has been replaced with "local stormwater management program" to conform with definitional revisions in 4VAC50-60-10. Additional provisions regarding locality review of department findings prior to a board meeting have also been provided.	This is a new section. The majority of the language has been relocated from 4VAC50-60-157 of the previous regulations. Several administrative changes have been made. Additional opportunities for locality review of department findings have been provided.
4VAC50-60-146	This is a new section.	This section now begins Part III C. In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section contains language that was previously located in 4VAC50-60-158. No	This section now begins Part III C. In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section contains language that was previously located in 4VAC50-60- 158. No

		changes were made to that language. This section details the authority and applicability of the board to authorize the administration of local stormwater management programs.	changes were made to that language.
4VAC50-60-148	This is a new section.	This section explains the administrative requirements of a local stormwater management program. Administrative requirements include identification of the authorities accepting registration statements, completing plan reviews, plan approvals, inspection and enforcement. Localities are required to provide for the submission and approval of erosion and sediment control plans and to ensure compliance with 4VAC50-60-54, 55, and 56 as applicable. Localities are also responsible for providing for long-term inspection and maintenance of stormwater management facilities and for providing for the collection, distribution and expenditure of fees. The requirement that localities adopt ordinances is also stated. Many of the requirements of this section were previously located in 4VAC50-60-106.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section is part of the old Part III C. This section explains the administrative requirements of a local stormwater management program. Many of the requirements of this section were previously located in 4VAC50-60-106.
4VAC50-60-150	This section was deleted in its entirety.	This section is now related to the authorization procedures for local stormwater management programs. The authorization procedures were previously located in 4VAC50-60-159. There are minor revisions to the language to add clarity, but the majority of that language remains unchanged. In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. The authorization procedures were previously located in 4VAC50-60-159. There are minor revisions to that language to add clarity, but the majority of the language remains unchanged.
4VAC50-60-154	This section explained that the department shall maintain a current database of permit coverage information for all projects. Department-operated local	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and

	stormwater management programs shall also report information in the same manner as required by qualifying local programs, and records shall be kept by the department in the same manner as is required of qualifying local programs.	D to Parts III B and C. This section has been deleted and language related to the reporting and record keeping has been relocated to 4VAC50-60-126.	C. This section has been deleted and language related to the reporting and record keeping has been relocated to 4VAC50-60-126.
4VAC50-60-156	This section noted that Part IIIC (sections 4VAC50-60-156 through 4VAC50-60-157) specifies the criteria that will be utilized by the department in reviewing a locality's administration of a qualifying local program.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to the authority and applicability of the department related to the review of local stormwater management plans has been relocated to 4VAC50-60-142.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to the authority of the department related to the review of local stormwater management plans has been relocated to 4VAC50-60-142.
4VAC50-60-157	This section noted that all qualifying local programs will be reviewed at least once every five years, as required by the Stormwater Management Act. Evaluations shall be conducted according to the same criteria currently contained in 4VAC50-60-120(B), with an addition of a review of an accounting of the receipt and of the expenditure of fees received. The section additionally describes the process by which the board will allow for corrective action to be taken by any qualifying local program for which deficiencies are noted.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to the local stormwater management program review has been relocated to 4VAC50-60 144.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to the local stormwater management program review has been relocated to 4VAC50-60-144.
4VAC50-60-158	This section noted that Part III D (sections 4VAC50-60-158 through 4VAC50-60-159) establishes the procedures by which the Board will authorize a locality to administer a qualifying local program.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C.

		This section has been deleted and language related to authority and applicability of board authorization for local programs has been relocated to 4VAC50-60-146.	This section has been deleted and language related to authority and applicability of board authorization for local programs has been relocated to 4VAC50-60-146.
4VAC50-60-159	This section describes the procedure by which the board will authorize a locality to administer a qualifying local program. A locality will first submit an application package, which will be reviewed for completeness within 20 calendar days. The board will thereafter have 90 calendar days to review the application package for compliance with the Stormwater Management Act and the VSMP regulations. Any decision will be communicated to the locality. This section also notes the timeframes for qualifying local program adoption. Subsections (D) and (E) note the times during which localities should notify the Board. Finally, the section notes that for localities where no qualifying local program is adopted, the department will administer a local stormwater management program. The department may phase in these programs over a period of time based on the criteria noted in the section.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to authorization for local stormwater management programs has been relocated to 4VAC50-60-148.	In the previous version of the regulations, Part III A dealt with locality administered programs and Part III B dealt with the department administered program. Merging those two parts required the relocation of Parts III C and D to Parts III B and C. This section has been deleted and language related to authorization for local stormwater management programs has been relocated to 4VAC50-60-148.
DOCUMENTS INCORPORATED BY REFERENCE	The regulations as last published contain a number of documents that are incorporated by reference. The first, Technical Bulletin #1—Stream Channel Erosion Control, is referenced in the proposed 4VAC50-60-66. The other two documents	This section has been revised. The reference to Technical Bulletin #1 has been removed as have the inclusion of the Runoff Reduction Method Worksheets and Technical Memorandum – The Runoff Reduction Method. Instead an updated version of the Runoff Reduction Methodology has been included	The changes made reflect the latest version of the Runoff Reduction Methodology. It was also recognized that there would need to be updates to the Reduction Method worksheets to incorporate new approved BMPs. It was also noted that technical bulletin #1 is no longer needed with revisions to the water quantity

	(Technical Memorandum—the Runoff Reduction Method and Virginia Runoff Reduction Method Worksheet) are noted in 4VAC50-60-65.	entitled the "Virginia Runoff Reduction Method: Instructions & Documentation, March 27, 2011.	requirements.

Public comment

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Summary of Public Comment on the Proposed Parts I, II, and III regulatory action

During the 60-day public comment period on the proposed regulations that ran from June 22, 2009 to August 21, 2009, 3,421 comments were received on the two stormwater regulatory actions open at that time (Parts I, II, III and Part XIII). The comments included those received during the five public hearings held around the state, those submitted on Virginia's Regulatory Town Hall website, and those directly provided to the Department of Conservation and Recreation on behalf of the board. A majority of the comments received were supportive of the proposed regulations; however, several key issues were raised that were addressed in the final regulations adopted by the board on October 5, 2009.

Information regarding the public comments is as follows:

- Public hearings/informational meetings were held as follows:

June 30th	Hungry Mother State Park	8 in attendance and 3 spoke
July 1st	Augusta County Government Center	48 in attendance and 22 spoke
July 7th	City of Manassas	59 in attendance and 28 spoke
July 9th	City of Hampton	62 in attendance and 22 spoke
July 14th	Virginia General Assembly Building	~165 in attendance and 60 spoke
		342 135

- During the comment period a total 3,421 public comments were received. These included:
    - 2,032 from a door to door campaign
    - 135 from the public hearings
    - 443 from the Regulatory TownHall (Parts I, II, and III, and Part XIII)
    - 171 individualized stakeholder letters
    - 639 action alerts (3 groups – CBF, VCN, Realtors)
    - 1 EPA

Responses to those comments received have been previously summarized and submitted as part of the public record. This information has not been included in this form but may be found on the Commonwealth's Regulatory TownHall http://www.townhall.virginia.gov/L/viewstage.cfm?stageid=5397&display=documents and the Department of Conservation and Recreation's website at: http://www.dcr.virginia.gov/lr2d.shtml.

Following the board's adoption of final regulations related to Parts I, II, III on October 5, 2009, the board also immediately suspended the final regulations and called for an additional 30-day

public comment period on the final Parts I, II, and III regulations. During this additional public comment period (held between October 26, 2009 and November 25, 2009), 207 comments were received on the combined regulatory actions.

Responses to those comments received have been previously summarized and submitted as part of the public record. This information has not been included in this form but may be found on the Commonwealth's Regulatory TownHall http://www.townhall.virginia.gov/L/viewstage.cfm?stageid=5397&display=documents and the Department of Conservation and Recreation's website at: http://www.dcr.virginia.gov/lr2d.shtml.

On December 9, 2009, the Virginia Soil and Water Conservation Board rescinded the October 5, 2009 suspension and adopted revised final revisions to the Virginia Stormwater Management Program (VSMP) Permit Regulations Parts I, II, and III (4VAC50-60). The revised final regulations were published in the Virginia Register of Regulations on January 4, 2010 initiating a 30-day final adoption period. The regulations were to become effective on July 1, 2010. On January 14, 2010, the board suspended the effective date of this regulatory action, in response to 25 petitions received during the 30-day final adoption period, in accordance with §2.2-4007.06 of the Administrative Process Act. During the 30-day public comment period following the suspension of the regulations (February 15, 2010 to March 17, 2010), the Department received 17 comments. Comments received and the Department's responses are outlined in the following Table.

Comments received during the 30-day public comment period following the January 14, 2010 Virginia Soil and Water Conservation Board suspension of the Virginia Stormwater Management Program (VSMP) Permit Regulations Parts I, II, and III (4VAC50-60).

Commenter	Comment	Agency Response
Ann Jennings (Chesapeake Bay Foundation); David Phemister (The Nature Conservancy); William Street (James River Association); Patrick Felling (Potomac Conservancy)	Stormwater poses a real and growing threat to the ecological and hydrological integrity of Virginia's streams, rivers, and the Chesapeake Bay; believe strongly that development and implementation of improved stormwater regulations are critical to achieving Virginia's water quality commitments and to ensuring that Virginia can have both clean water and economic growth; look forward to continuing the stormwater discussion following completion of the Virginia TMDL Implementation Plan for an EPA approved Chesapeake Bay Nutrient and Sediment TMDL; want this regulatory action to move forward in as comprehensive, straight-forward, and strong a manner as possible so that we have in place an effective regulation that provides real and verifiable benefits to the program.	The final regulations adopted by the board on May 24, 2011 reflect general consensus of the Regulatory Advisory Panel. Since the final regulations were suspended in January of 2010, stakeholders and the department have worked hard and collectively accomplished a lot to develop these readopted final regulations as well as to refine the BMP standards on the BMP Clearinghouse website, to develop a revised Stormwater Handbook, and to update the Virginia Runoff Reduction Method. The department believes that with these additional amendments to the regulations over the last year, the Board is advancing a final set of regulations that there is general consensus around, that are established on a sound scientific basis, that advance water quality protections, and that responsibly regulate land disturbing activities. We certainly believe that the collective efforts of involved stakeholders and the Department have resulted in a solid set of regulations that is supported by the best science available nationally.
Richard Marzolf (Lord Fairfax Soil and Water Conservation District); Virginia Tyack; Kate Wofford (Shenandoah Valley Network)	Support the stormwater regulations	The department appreciates support for the stormwater regulations and believes that the regulations adopted by the Board on May 24, 2011 minimize the cumulative impacts of stormwater on humans and the environment and moderate the associated hydrologic impacts.
Barrett Hardiman (Home	HBAV continues to assert the need for new, more strict	The final regulations adopted by the Board on

Builders Association of Virginia)	regulations as contained in the regulation as approved on December 9, 2009 is questionable based on new data that continues to surface from both EPA and private sources; believes that our current regulatory regime has created significant benefits for both the Chesapeake Bay and its tributaries wholly contained within the Commonwealth; also believes that failing to address the stormwater regulation will result in a continued struggle between appropriately addressing pollutant removal in the Chesapeake Bay balanced with promoting job growth in Virginia. Abandon Part II of the stormwater regulations (4VAC50-60-40 thru 4VAC50-60-93) in favor of an approach to pollutant removal that will have real effects on Bay cleanup with minimal impact on Virginia's economy.	May 24, 2011 reflect general consensus of the Regulatory Advisory Panel including HBAV. Since the final regulations were suspended in January of 2010, stakeholders and the Department have worked hard and collectively accomplished a lot to develop these readopted final regulations as well as to refine the BMP standards on the BMP Clearinghouse website, to develop a revised Stormwater Handbook, and to update the Virginia Runoff Reduction Method. The Department believes that with these additional amendments to the regulations over the last year, the Board is advancing a final set of regulations that there is general consensus around, that are established on a sound scientific basis, that advance water quality protections, and that responsibly regulate land disturbing activities. We certainly believe that the collective efforts of involved stakeholders and the Department have resulted in a solid set of regulations that is supported by the best science available nationally.
David Anderson and David Johnson (Virginia Fountainhead Alliance)	The 0.45 standard contained in the proposed regulations, however, is not the standard currently being applied by the Department of Conservation and Recreation. Rather, because of the new calculation method contained in the proposed regulation, the "new" 0.45 standard is in fact more rigorous and, in practice, potentially more expensive and difficult to achieve than the current standard.	The 0.45 lbs/acre/year phosphorus standard and calculation method have been since reconsidered and modified. The Department believes that with these additional amendments to the regulations over the last year, the Board is advancing a final set of regulations that there is general consensus around, that are established on a sound scientific basis, that advance water quality protections, and that responsibly regulate land disturbing activities. We certainly believe that the collective efforts of involved stakeholders and the department have resulted in a solid set of regulations that is supported by the best science available nationally.

		The 0.41 lbs/acre/year phosphorus standard in the May 24, 2011 board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. The regulatory advisory panel agreed that a science based approach linking impervious cover and declining stream health was both valid and defensible. Research has established that as impervious cover in a watershed increases, stream stability is often reduced, habitat is lost, water quality becomes degraded, and biological diversity decreases largely due to stormwater runoff. In order to be protective of local streams and local water quality a water quality design standard that equates to an impervious cover of ten percent was selected. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream. Accordingly, these final regulations will work to minimize the cumulative impacts of stormwater on humans and the environment and moderate the associated hydrologic impacts.
David Anderson and David Johnson (Virginia Fountainhead Alliance); Tyler Craddock (Virginia Chamber of Commerce)	Little or no record has been developed examining whether and, if so, to what extent the Southern Rivers are nutrient impaired. Without the development of a substantial record on this point, there can little justification for establishing a rigorous regulatory standard for waters outside of the Bay watershed.	The 0.41 lbs/acre/year phosphorus standard in the May 24, 2011 board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. The regulatory advisory panel agreed that a science based approach linking impervious cover and declining stream health was both valid and defensible. Research has established that as impervious cover in a watershed increases, stream stability is often reduced, habitat is lost, water quality becomes

		degraded, and biological diversity decreases largely due to stormwater runoff. In order to be protective of local streams and local water quality a water quality design standard that equates to an impervious cover of ten percent was selected. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.
David Anderson and David Johnson (Virginia Fountainhead Alliance); Tyler Craddock (Virginia Chamber of Commerce)	Wish to restate some serious concerns that we have regarding the science behind the proposed water quality standard; standard was developed using all non-developed land as a basis for assessing future developed land potential; this did not take into consideration that over 2.5 million acres of land in the Chesapeake Bay watershed are permanently protected via various means from urban development and therefore their current phosphorus loads will be preserved; the future conversion of land to urban developed land was assessed to be equally from current agricultural, forested and mixed open uses – historical data shows that this is not an accurate portrayal of expected future conversion rates; believe that the ratio between Virginia's population increase and the increase in impervious land relied upon by the Board as a basis for this strict regulation is seriously flawed and needs to be re-examined.	The 0.45 lbs/acre/year phosphorus standard and calculation method based on the Chesapeake Bay Model have been since reconsidered and modified. The 0.41 lbs/acre/year phosphorus standard in the May 24, 2011 board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. The standard was developed based on research by Thomas R. Schueler, Lisa Fraley-McNeal, and Karen Cappiella ("Is Impervious Cover Still Important? Review of Recent Research", Journal of Hydrologic Engineering, April 2009). This publication analyzed 65 recent studies to determine the relevancy of the impervious cover model. The publication found that a level of impervious cover in the watershed of as little as 5% to 10% could have a negative impact on receiving water quality. The Regulatory Advisory Panel (RAP) agreed that the science linking increasing impervious cover and declining stream health was both valid and defensible. In order to be protective of local streams and local water quality, the RAP agreed a water quality design standard that equates to an impervious cover of ten percent. However, the RAP expressed

		concern that the publication concentrated on impervious cover and did not address pollutant contributions from other types of land use such as forest, agriculture, and pervious urban. To alleviate this concern, additional research was conducted specific to Virginia regarding contributions from turf, agriculture, and forest runoff. As a result of this research and further discussion, pollutant contributions from forest and turf are included in the final water quality design standard as well. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.
Margaret Lorenz (Friends of the North Fork of the Shenandoah River); John Eckman (Valley Conservation Council); Shirley Gellis; Charles Newton	Recent amendments to the new regulations revert to the existing water quality standard which is not sufficient to protect the streams and rivers of the Shenandoah Valley from the impacts of new development; strongly request DCR to develop improved standards that management stormwater runoff from development.	The Department believes that the regulations adopted by the Board on May 24, 2011 minimize the cumulative impacts of stormwater on humans and the environment and moderate the associated hydrologic impacts.
John Eckman (Valley Conservation Council)	Support continuing efforts to ensure that the regulations do not have the effect of discouraging redevelopment of existing sites and to development in growth areas	The department believes that the regulations adopted by the Board on May 24, 2011 minimize the cumulative impacts of stormwater on humans and the environment and moderate the associated hydrologic impacts. Additionally, it is believed that the regulations will not discourage redevelopment and that the use of expanded offsets and off-site options in 4VAC50-60-69 make compliance with the water quality and quantity criteria feasible.
John Eckman (Valley Conservation Council)	Support continued research to continually improve the understanding of best methods and also support the development of accessory materials (such as the clearinghouse), training programs, and educational efforts to hasten application of the standards and ease implementation; urge continued efforts to develop guidance and training for localities with karst geology	With the final adoption of these regulations, the department will be quickly shifting to local program adoption and implementation. It is recognized by the department that we will need to focus on developing guidance for localities and providing technical assistance and training. This includes finalizing the

		handbook and continuing to expand upon the suite of BMPs already available on the BMP Clearinghouse.
William Bullard (Department of the Navy)	4VAC50-60 Part XIII (effective February 3, 2010) recognized that the Department can approve annual standards and specifications for both state and federal agencies. If these annual standards and specifications are approved then the Department waives annual permit maintenance fees for the submitting state or federal agency. We recommend treating state and federal agencies in the same manner in 4VAC50-60-45, thereby allowing approval of an implementation schedule for a federal agency.	Implementation schedules are specific to the Stormwater Permitting Administrative Authorities. State and federal agencies may submit annual standards and specifications but are not Stormwater Permitting Administrative Authorities. Therefore, the implementation schedule is not applicable for either state or federal agencies. It should also be noted that much of the language in 4VAC50-60-45 has been revised and reorganized and language concerning implementation schedules has been removed.
William Bullard (Department of the Navy)	4VAC50-50-69: This section as written omits federal agencies. However, federal agencies may also encounter site constraints limiting their ability to manage stormwater with onsite controls. Therefore, we believe these offsite compliance options should also apply to federal agencies.	4VAC50-60-69 A. states that a Stormwater Permitting Administrative Authority may allow an operator to use offsite compliance options to meet required phosphorus nutrient reductions. Accordingly, DCR as the Stormwater Permitting Administrative Authority for federal projects may allow the use of offsite options.
Tommy Barlow (Louisa County Board of Supervisors)	By establishing a more stringent threshold in the range of 8-9% imperviousness, the federal and state goals to further protect the Chesapeake Bay from stormwater runoff will be addressed and at the same time apply a common sense method of determining when retention/detention measures are or are not warranted.	The 0.41 lbs/acre/year phosphorus standard in the May 24, 2011 board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. The standard was developed based on research by Thomas R. Schueler, Lisa Fraley-McNeal, and Karen Cappiella ("Is Impervious Cover Still Important? Review of Recent Research", Journal of Hydrologic Engineering, April 2009). This publication analyzed 65 recent studies to determine the relevancy of the impervious cover model. The publication found that a level of impervious cover in the watershed of as little as 5% to 10% could have

		a negative impact on receiving water quality. The Regulatory Advisory Panel (RAP) agreed that the science linking increasing impervious cover and declining stream health was both valid and defensible. In order to be protective of local streams and local water quality, the RAP agreed a water quality design standard that equates to an impervious cover of ten percent. However, the RAP expressed concern that the publication concentrated on impervious cover and did not address pollutant contributions from other types of land use such as forest, agriculture, and pervious urban. To alleviate this concern, additional research was conducted specific to Virginia regarding contributions from turf, agriculture, and forest runoff. As a result of this research and further discussion, pollutant contributions from forest and turf are included in the final water quality design standard as well. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-10 "Prior developed lands": as it relates to areas that were developed but now may no longer be as impervious as when previously developed. For example, a blighted city block was razed and is now a vacant lot. During the time at which it was vacant, grass established on the lot. Is this lot now completely pervious or can it be interpreted with the imperviousness of the previously developed lot?	EPA has provided regulatory guidance that predevelopment is defined as the activity immediately prior to the construction activity. As such, the previously developed conditions would be that at the current time (grassed lot).
Bryan Stevenson (VHB, Inc.)	4VAC50-60-10: Is the role of the permanent BMP stakeholder committee defined? Are there established rules?	The BMP Clearinghouse is jointly administered by the Virginia Department of Conservation and Recreation (DCR), and the Virginia Water Resources Research Center (VWRRC). The DCR and VWRRC have jointly established an oversight committee, called the Virginia Stormwater BMP Clearinghouse Committee.

		The committee members represent various stakeholder groups involved with stormwater management. The Committee provides advice and direction for the Clearinghouse project and is governed by a charter Working with the Virginia Water Resource Research Center, DCR established and now administers the Virginia Stormwater Management BMP Clearinghouse Web site. The site is used to: • Disseminate design standards and specifications of all stormwater best management practices (BMPs) approved for use in Virginia to control the quality, quantity or both of stormwater runoff. • Disseminate results of Virginia's process to evaluate and certify the performance claims of manufactured and proprietary BMPs approved for use in Virginia. • Provide information and links to websites pertaining to those who must comply with the Virginia Stormwater Management Law and Regulations. A process has also been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. The process also allows for other new BMP technology to be added and utilized. We think that this approach adds both certainty and flexibility.
John Eckman (Valley Conservation Council)	Disappointed that the grandfathering and delays in implementation mean it will be years before improvements are made on the ground	Since this comment was received the section on grandfathering has been revised. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA,

		based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled “Time limits on applicability of approved design criteria”. In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
Bryan Stevenson (VHB, Inc.)	How do the grandfathering procedures apply with relationship to the establishment of the TMDL?	It should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements. TMDL language in 4VAC50-60-63 C (in public comment draft) (now moved to 4VAC50-60-54 E.) requires additional control measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a State Water Control Board approved TMDL.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-48: Can the VSMP be revised as to affect the projects that are grandfathered? Is there a possibility that a change in the VSMP will not really "grandfather" a project?	The grandfathering provisions apply to postdevelopment water quality design criteria. There is a possibility that additional requirements may be necessary during construction to comply with a TMDL; however, these requirements apply during construction only and should not alter the postdevelopment water quality design criteria.

Bryan Stevenson (VHB, Inc.)	4VAC50-60-48 Part B: Do all conditions need to be met to meet grandfathering? What if no extensive obligations or significant expenses occurred? Is there a definition for significant impacts?	Since this comment was received the section on grandfathering has been revised. The grandfathering options are clearly outlined in 4VAC50-60-48. The terms in question are not utilized in the current language.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-48 Part B: What does "permit coverage continuously remains in effect" mean for large phased projects? Can you get a VSMP for areas that are only at a preliminary design phase?	Since this comment was received the section on grandfathering has been revised. The grandfathering options are clearly outlined in 4VAC50-60-48. The term in question are not utilized in the current language.
John Carlock (Hampton Roads Planning District Commission)	Recommends that DCR change the language in the grandfathering section to reference the "effective date" of the regulations rather than July 1, 2010 given the passed of bills by the General Assembly that advance the effective date of the regulations	Since this comment was received the section on grandfathering has been revised. The benchmark date for a project to be considered as grandfathering if certain specified conditions are met is now July 1, 2012.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-48 Pages 20-21: The amount of time allowed to not only complete but to <u>begin</u> projects subject to grandfathering extensions is too long. The time period should be shortened and should be contingent on follow-through with actual and complete construction.	Since this comment was received the section on grandfathering has been revised. A number of the dates associated with administrative timelines and grandfathering have been refined and tightened. Based on comments received, a new section numbered 4VAC50-60-47.1 and titled “Time limits on applicability of approved design criteria” was created and language carved out the grandfathering section that specifies that any project that receives general permit coverage shall be held to the technical criteria under which permit coverage is issued and shall remain subject to those criteria for an additional two permit cycles. This provision is more stringent than current operating practices by either EPA, based on our current understanding, or Virginia.
David Bernard (Virginia Chapter Sierra Club)	In B, after June 30, 2014, there should be a comma and then the qualifying clause, “provided actual construction begins by January 1, 2012 and proceeds without delays (other than those from normal acts of weather) to completion by June 30, 2014. Portions of the project not completed, so far as site work, paving, and utility and stormwater construction, (land disturbing	Since this comment was received the section on grandfathering has been revised. A number of the dates associated with administrative timelines and grandfathering have been refined and tightened. We believe that a balanced approach to grandfathering

	activities) by June 30, 2014 shall be subject to Part II A."	has been achieved.
David Bernard (Virginia Chapter Sierra Club)	The entire portion of the paragraph after June 30, 2014 beginning "If permit coverage continuously…" should be deleted. No land disturbing activities beyond June 30, 2014 should be grandfathered.	Since this comment was received the section on grandfathering has been revised. A number of the dates associated with administrative timelines and grandfathering have been refined and tightened. We believe that a balanced approach to grandfathering has been achieved.
David Bernard (Virginia Chapter Sierra Club)	In B, paragraph 2: the condition v (on page 21, 1st line) should be deleted. We need to avoid a rush to get plans in to avoid the new regulations.	Since this comment was received the section on grandfathering has been revised. A number of the dates associated with administrative timelines and grandfathering have been refined and tightened. We believe that a balanced approach to grandfathering has been achieved.
David Bernard (Virginia Chapter Sierra Club)	This paragraph should be added: "Any project found to be eligible for Part II B that has its project delayed or changed through lack of financing, submission of a substantially enlarged or modified (unless such modification results in substantially less impervious area) site plan, foreclosure or change of ownership, management decision to delay, or any other reason not caused by government action or normal delays for weather, shall lose such grandfathering eligibility and the new or renewed project shall be subject to Part II A." It is important that all grandfathered projects be actual good faith projects with solid financials and that this grandfathering language not be used to simply put tracts of land "on the books" to avoid stormwater regulation.	Since this comment was received the section on grandfathering has been revised. A number of the dates associated with administrative timelines and grandfathering have been refined and tightened. We believe that a balanced approach to grandfathering has been achieved.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-63 Page 24: The bending or the weakening of the phosphorus (P) standard is not acceptable. The P standard was adopted by the regulatory advisory panel and accepted by DCR for sound scientific and engineering reasons. It is technically attainable and deemed necessary to prevent increases in nutrient pollution. The P standard was also adopted with the understanding that limits on P, which is by weight the smallest pollutant being regulated, also sets a standard for nitrogen (N) and sediment. Therefore, weakening the P standard also allows more N and sediment to enter the water. .28 P/acre/year for all projects.	The 0.41 lbs/acre/year phosphorus standard in the May 24, 2011 Board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.
David Bernard (Virginia	4VAC 50-60 Page 25: 2c. Do not strike .28 P/acre/year. Keep	The 0.41 lbs/acre/year phosphorus standard in

Chapter Sierra Club)	5.	the May 24, 2011 Board readopted regulations represents a statewide water quality design standard that is sufficient to protect water quality in both local and downstream receiving waters. It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-65: Why are the BMP removal efficiencies defined in the regulation?	The table that includes the BMP efficiencies has been removed from the regulations. However, in order for design certainty to be in place for developers and for the enforceability of these designs during inspections, the primary practices that may be utilized to achieve the required technical criteria are set out by version number and date. This is in lieu of the entire Table with efficiencies being located in the regulations and represents a compromise in that regard. The detailed specifications for these BMPS have been posted to the BMP Clearinghouse for several years now. A process has been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. We think that this approach adds both certainty and flexibility.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-65: Has the procedure for the BMP clearinghouse been defined yet?	The BMP Clearinghouse is jointly administered by the Virginia Department of Conservation and Recreation (DCR), and the Virginia Water Resources Research Center (VWRRC). The DCR and VWRRC have jointly established an oversight committee, called the Virginia Stormwater BMP Clearinghouse Committee. The committee members represent various stakeholder groups involved with stormwater management. The Committee provides advice and direction for the Clearinghouse project and

		is governed by a charter Working with the Virginia Water Resource Research Center, DCR established and now administers the Virginia Stormwater Management BMP Clearinghouse Web site. The site is used to: • Disseminate design standards and specifications of all stormwater best management practices (BMPs) approved for use in Virginia to control the quality, quantity or both of stormwater runoff. • Disseminate results of Virginia's process to evaluate and certify the performance claims of manufactured and proprietary BMPs approved for use in Virginia. • Provide information and links to websites pertaining to those who must comply with the Virginia Stormwater Management Law and Regulations.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-65 Part E: Why is the portion to include undeveloped land? Does this mean the land is not supposed to be developed?	The term "site" has been redefined to mean the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity. Accordingly, the department has also stricken all of subsection E as it no longer applies. We will be developing guidance to provide additional clarity to this issue if necessary.
Dave Kibler	Table 1 data on WQ compliance lists removal percentages for various BMPs that are quite different from those produced for VADOT/VTRC by Young and Kibler (2008). These authors analyzed data collected by ASCE/EPA, Center for Watershed Protection, and TARP/MASTEP. Current trend is more toward the use of median effluent concentrations for primary pollutants, rather than removal percentage targets. It is not clear how the total removal of TP target percentages were obtained. Was the referenced study considered as part of the CWP analysis? Will further backup be provided by the CWP as to how pollutant	The pollutant reduction efficiencies for the referenced BMPs were based on Virginia standard designs and not a conglomeration of designs across the country or region of the country. The BMP Clearinghouse will not be able to change the efficiencies of existing BMP designs; however, as new designs are approved, BMP efficiencies specific to those

	removal efficiencies were established? Can the BMP Clearinghouse have the authority to change these pollutant removal efficiencies as more information is made available through testing of built improvements?	designs will be added to the BMP Clearinghouse and may be utilized for compliance.
Tommy Barlow (Louisa County Board of Supervisors)	The current rule that post-runoff cannot exceed pre-runoff by any amount is in many cases unwarranted, costly and counterproductive.	The condition that Q-post developed be greater than Q-pre developed is applicable only to the one-year, 24-hour storm event design, not the entire storm event. This is consistent with the requirements found at §10.1-603.4 in the Code of Virginia.
Margaret Lorenz (Friends of the North Fork of the Shenandoah River)	Proposed regulations, as now written, improve the management of water quantity.	The department appreciates the support for this section of the regulations. This section was further refined in the version adopted by the Board on May 24, 2011 but the department notes that it also advances the same improvements as the earlier version did although the equations have been modified.
Williamsburg Environmental Group	While we do not have any strong fundamental objections to the proposed "Energy Balance" water quantity criterion, we feel that the issue should be researched more thoroughly prior to implementation in order to assess the overall volume-discharge relationships. (Initial evaluations reveal a relatively large volume requirement with a disproportionately small orifice - which in and of itself is not necessarily a problem, but does require better guidance on orifice design and anticlogging measures). Specifically, while the Energy Balance method is elegant in it's simplicity and compatibility with the Runoff Reduction Method (RRM), there have been no studies of it's effectiveness based either on real-world data nor scientific principles. The evidence in support of it to date consists only of a few isolated examples which demonstrate lower flow rates, which does not necessarily correlate directly to improved channel protection. We recommend additional review of this method versus an analysis of the actual energy and work exerted on stream beds and banks. We further recommend that DCR blend this evaluation with the process of improving the regulations in the future. The energy balance method is intended to mimic the watershed characteristics under which stable streams were formed. For the Commonwealth, streams were formed under undeveloped conditions with the energy balance representing the flow and	Over the course of the last year, a subcommittee of the Regulatory Advisory Panel was formulated to study this approach in further detail. Based on the recommendations of this subcommittee the section was refined. Under channel protection, in the energy balance formula (for natural stormwater conveyance systems) the peak flow rate and volume of runoff for the existing land use at a given storm was changed from an assumed “good pasture” condition to now utilize the peak flow rate and volume of runoff from the actual pre-developed land use condition. To moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites < 1 acre). The department also recognizes that we will need to focus on developing guidance to further inform the public regarding the use of criterion such as these.

	volume that resulted in stream stability.	
Bryan Stevenson (VHB, Inc.)	4VAC50-60-66 Part E: What is the concern with this? Is it possible to define the increased volume in sheet flow? Is there an issue with the soils that may be a concern?	The reasoning for this section is to insure that potential issues from excessive sheet flow do not cause water quality issues. Excessive sheet flow can cause erosion based on the contributing drainage area.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-66 Part F: What happens to areas where the land has been previously developed (such as infill areas where buildings were razed)?	EPA has provided regulatory guidance that predevelopment is defined as the activity immediately prior to the construction activity. Therefore, the currently existing conditions would be assumed to be in 'good' condition.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-66 Page 28: A. Keep "Nothing in this section shall prohibit a qualifying local program from establishing a more stringent standard."	The statement has been retained.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-66 Page 29: B4. Keep "forested" as the standard. "Good pasture" is not the standard. "Good pasture" is a developed use. We are talking about discharge to an unstable channel from a new development upstream.	Over the course of the last year, a subcommittee of the Regulatory Advisory Panel was formulated to study water quantity and the energy balance equation in further detail. Based on the recommendations of this subcommittee the section was refined. Under channel protection, in the energy balance formula (for natural stormwater conveyance systems) the peak flow rate and volume of runoff for the existing land use at a given storm was changed from an assumed "good pasture" condition to now utilize the peak flow rate and volume of runoff from the actual pre-developed land use condition. To moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites < 1 acre).
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-66 Page 30: B5. Do not delete "Such volume must be less than RV-pre-developed." C4. Keep "forested conditions" on bottom line.	Over the course of the last year, a subcommittee of the Regulatory Advisory Panel was formulated to study water quantity and the energy balance equation in further detail. Based on the recommendations of this subcommittee the section was refined. Under channel protection, in the energy

		balance formula (for natural stormwater conveyance systems) the peak flow rate and volume of runoff for the existing land use at a given storm was changed from an assumed "good pasture" condition to now utilize the peak flow rate and volume of runoff from the actual pre-developed land use condition. To moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites < 1 acre).
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-69 Page 33: B2. AG BMP's should be permanent, without a 20 year expiration date.	In the offsite compliance options, the state buy-down option has been removed from the regulation. Accordingly, this language has also been eliminated.
Joanna Curran	4VAC50-60-72: In most areas there is rainfall data available and in some areas there are also flow records. Whenever possible, these data should be utilized in the determination of design storms. They can be used in conjunction with modeling but where actual data is available, it should be included.	No changes have been made.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-95 Part D: If laws change, is the plan design actually "grandfathered"?	The grandfathering provisions allow an operator to be held to today's regulatory post-construction standards. If laws change, operators will need to be in compliance with the law as of its effective date.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-95 Page 38: J. How does a stormwater management impoundment structure in a 100 year floodplain work? "When this is unavoidable" the project should be turned down.	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards.
David Bernard (Virginia Chapter Sierra Club)	K. This is loophole language. Strike the last part of the sentence, "to the maximum extent practicable."	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards.
David Bernard (Virginia Chapter Sierra Club)	M. Obviously the low ground is the optimum location for a stormwater management facility, where else is the water going to go?	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-98 Page 41: D. This blanket release from postdeveloped stormwater runoff is not good. Roads are impervious and power lines and pipelines require maintenance of an unforested condition, sometimes on very steep land.	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards.

David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-108 Page 44: B1i. Keep the 50% required base fee. Developers need to pay for review of the plans. Similar problematic language on page 45 section C.	The elements of this section were moved to 4VAC50-60-55. In this revised section the timing of the payment is left up to the stormwater program administrative authority.
Bryan Stevenson (VHB, Inc.)	4VAC50-60-108: Part B. 1. i. - 4VAC50-60-820 refers to fees relative to VSMP applications. Why is half of the VSMP permit application due at the time of stormwater plan review? This seems like an unnecessary administrative burden. It also seems like VSMP related fees should remain with the actual land disturbing activity. Does this lock you in to the fee at which you pay? Does the beginning of the VSMP "life" start when you make your payment? This is unclear.	The elements of this section were moved to 4VAC50-60-55. In this revised section the timing of the payment is left up to the stormwater program administrative authority. Fee must be paid in accordance with Part XIII.
David Bernard (Virginia Chapter Sierra Club)	4VAC50-60-124 Page 52: A2. It is important that a loophole not be created here. All stormwater management facilities that serve more than one property need to be subject to an enforceable maintenance agreement. The plumbing code requires that water supply and building sewer connections to the municipality be on public property or on the property being served. This saves problems. The same standard should apply to stormwater. Restore “solely,” delete “primarily.”	The elements of this section were moved to 4VAC50-60-112. The language in question was reviewed by the regulatory advisory committee and a local government subcommittee and was retained.
Bryan Stevenson (VHB, Inc.)	Please clarify how the new bills passed in the General Assembly will affect the current regulations? Will the entire regulation be open for public comment when changes are made to the regulation?	During the 2010 General Assembly Session, legislation was advanced (Chapters 137 and 370 of the 2010 Virginia Acts of Assembly) that stipulated that the regulation that establishes local program criteria and delegation procedures and the water quality and water quantity criteria, shall become effective within 280 days after the establishment by the EPA of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011. The legislation also called for a regulatory advisory panel (RAP) to be formed to continue work on the regulations. In response to the legislation, the Board at its March 26, 2010 meeting determined to keep the regulations suspended and with the Department assembled a 35-member RAP. Since July of 2010, the RAP met five times and its subcommittees a total of seventeen times to

		craft revised draft final regulations. Beginning on March 28, 2011, a 30-day public comment opportunity on the draft final regulations was provided (closed April 27th). Finally, on May 24, 2011, the Virginia Soil and Water Conservation Board voted to rescind the January 12, 2010 suspension of the January 4, 2010 published final regulations and to amend and readopt final regulations 4VAC50-60, Parts I, II, and III of the Virginia Stormwater Management Program (VSMP) Permit Regulations.
Bryan Stevenson (VHB, Inc.)	The bills passed by the House and Senate state: That the Virginia Soil and Water Conservation Board shall convene an advisory panel of stakeholders to review the regulation and to make recommendations to the Board on revisions to the regulations necessary to, among other things, comply with such TMDL. Is the current TMDL stakeholder group considered the advisory panel?	The TMDL stakeholder group was not considered the advisory panel. A new 35 member stormwater management regulatory advisory panel was assembled that beginning in July of 2010, met five times and its subcommittees a total of seventeen times to craft revised draft final regulations that were readopted by the Virginia Soil and Water Conservation Board on May 24, 2011..
Bryan Stevenson (VHB, Inc.)	The Virginia Stormwater management handbook is not listed as one of the support documents under review under this comment period. Will there be more opportunities to address any questions or comments regarding the manual?	With the Board adoption of the regulations, the department will be quickly shifting to local program adoption and implementation. It is recognized by the department that we will need to focus on developing guidance for localities and providing technical assistance and training. This includes finalizing the handbook and continuing to expand upon the suite of BMPs already available on the BMP Clearinghouse. DCR has been working with the Handbook Committee since 2009 in handbook development. DCR is still considering whether any additional public comment period is warranted.

During the 2010 General Assembly Session, legislation was advanced (Chapters 137 and 370 of the 2010 Virginia Acts of Assembly) that stipulated that the regulation that establishes local program criteria and delegation procedures and the water quality and water quantity criteria, shall become effective within 280 days after the establishment by the EPA of a Chesapeake Bay-wide Total Maximum Daily Load (TMDL) but in any event no later than December 1, 2011. The legislation also called for a regulatory advisory panel (RAP) to be formed to continue work on the regulations. In response to the legislation, the board at its March 26, 2010 meeting determined to keep the regulations suspended and with the department assembled a 35-member RAP. Since July of 2010, the RAP met five times and its subcommittees a total of seventeen times to craft revised draft final regulations. Beginning on March 28, 2011, a 30-day public comment opportunity on these draft final regulations was provided (closed April 27th).

Thirty comments were received during this public comment period. While the comments addressed a wide-variety of future implementation questions and raised some technical issues that would benefit from further clarification, they were generally supportive of the draft final regulations. In response to the comments, a number of the technical and grammatical issues were addressed in the final regulations that were readopted by the board on May 24, 2011. The two key technical themes advanced in the public comments were related to grandfathering and TMDLs, both of which were improved based on the comments received. It was also recognized, as was highlighted in the comments that as the department and the board begin to focus on the implementation of these regulations, the department will need to develop guidance to further clarify portions of these regulations. The department is committed to this task. Comments received and the department's responses are outlined in the following Table.

Comments received during the 30-day public comment period provided on the Virginia Stormwater Management Program (VSMP) Permit Regulations Parts I, II, and III (4VAC50-60) between March 28, 2011 and April 27, 2011.

Comments were received from 30 organizations or individuals. A table of commenters is provided immediately below:

#	**Commenter(s)**	**Commenter's Organization**
1	James W. Patteson	County of Fairfax, Department of Public Works and Environmental Services
2	Jeff Harn	Arlington County, Department of Environmental Services
3	Randall J. Williford	Loudoun County, Department of General Services
4	Marc T. Aveni	Prince William County, Department of Public Works
5	Keith White	Henrico County, Department of Public Works
6	Steven P. Herzog	Hanover County, Department of Public Works
7	Richard A. Street	Spotsylvania County, Department of Code Compliance
8	David S. Nunnally	Caroline County, Department of Planning and Community Development
9	Michael S. Bumbaco	City of Virginia Beach, Department of Public Works
10	Alice M. Kelly	City of Norfolk, Department of Public Works
11	Amar Dwarkanath	City of Chesapeake, Office of the City Manager
12	Maurice Jones	City of Charlottesville, Office of the City Manager
13	Lalit K. Sharma	City of Alexandria, Department of Transportation and Environmental Services
14	Dwight L. Farmer	Hampton Roads PDC
15	Joseph Lerch	Virginia Municipal League
16	Larry Land	Virginia Association of Counties
17	Randy Bartlett	Virginia Municipal Stormwater Association
18	Christine H. Porter and William Bullard	Department of the Navy
19	Michael L. Toalson	Home Builders Association of Virginia
20	Gregory Johnson	Patton Harris Rust & Associates
21	John W. Salm, III	J.W. Salm Engineering, Inc.
22	Steven C. Pandish	William H. Gordon Associates, Inc.
23	Daniel Proctor	Williamsburg Environmental Group
24	Donald J. Rissmeyer	Virginia Section American Society of Civil Engineers, Stormwater Technical Committee
25	Virginia R. Rockwell	Gentle Gardener

26	J.R. Tolbert and David Bernard	Sierra Club
27	William H. Street and Adrienne F. Kotula	James River Association
28	Mike Gerel and Margaret L. Sanner	Chesapeake Bay Foundation
29	Nichole M. Rovner	The Nature Conservancy in Virginia
30	Edward Graham	Citizen

Comments received and the Agency responses are as follows:

Commenter	Comment	Agency Response
	4VAC50-60-10 Definitions	
Michael Toalson (Home Builders Association of Virginia)	HBAV supports the adoption of the proposed revisions to Part I of the Regulations. This Part will provide a framework for the administration and enforcement of the Virginia Stormwater Management Act (the "Act"). The updates contained in the proposed revisions will allow the Department to efficiently manage the Act, while hopefully providing the flexibility needed to craft innovative solutions to stormwater management challenges.	The department appreciates the support for this Part of the regulations.
Randy Williford (Loudoun County)	"Adequate channel" – The original definition is removed. Reinsert the definition as the term is used in Part II C Technical Criteria for Regulated Land-Disturbing Activities: Grandfathered Projects (line 1415 CV). Please note related comment in Section 4VAC50-60-66.	A section has been added in Part II C for definitions that includes the term "adequate channel".
David Nunnally (Caroline County)	There is no definition of "adequate channel" referenced in 4VAC50-60-95 G. This term has been used in numerous contexts (and regulations), often creating great controversy. The original intent of these [SWM] regulations is to consolidate and streamline the various requirements dealing with stormwater runoff. The use of this term without definition or clarification only perpetuates the problem.	A section has been added in Part II C for definitions that includes the term "adequate channel".
Randy Williford (Loudoun County)	"Average land cover condition" – The original definition is removed. Reinsert the definition as the term is used in Part II C Technical Criteria for Regulated Land-Disturbing Activities: Grandfathered Projects.	A section has been added in Part II C for definitions that includes the term "average land cover condition".
Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	Several definitions referenced in Part II C have been removed from this section. These should be copied to this section from the current regulations or Part II C should included definitions from the existing regulations. Examples include the terms "adequate channel", "aquatic bench", and "average land cover condition".	A section has been added in Part II C for definitions that includes the terms "adequate channel", "aquatic bench", and "average land cover condition".
Randy Williford (Loudoun County)	"Small construction activity" – Clarification is needed regarding what requirements may be waived in the following phrase: "The board may waive the otherwise applicable requirements in a general permit for a stormwater discharge from construction activities that disturb less than five	This parallels the federal definition and the EPA has issued previous guidance that provides additional clarification. See http://cfpub.epa.gov/npdes/stormwater/waiver.cfm.

	acres where stormwater controls are not needed based on a "total maximum daily load" (TMDL) approved or established by EPA that addresses the pollutant(s) of concern or, for nonimpaired waters that do not require TMDLs . . .	These waivers are only waivers from VSMP permit coverage and not locally approved plans.
James Patteson (Fairfax County)	"Chesapeake Bay Preservation Act Land Disturbing Activity" – The use of this term is confusing since the definition only applies to areas greater than 2,500 square feet and less than 1 acre. The Chesapeake Bay Preservation Act (CBPA) applies to all land disturbing activity greater than 2,500 square feet including sites greater than 1 acre. Suggest using something like "other land disturbing activities subject to CBPA". Include land disturbing activities greater than 2,500 square feet and less than 1 acre in the definition.	No changes have been made, as this definition is only applicable to the Virginia Stormwater Management Act and its applicable regulations. The Chesapeake Bay Act provisions must still be met for all sites in those jurisdictions.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	"Chesapeake Bay Preservation Act Land Disturbing Activity" – Reference to the Chesapeake Bay Act was made in the definitions however no mention of the Energy Independence and Security Act (EISA) was made. This 2007 bill requires that federal facilities that disturb 5,000 sf of land or more in the Chesapeake Bay watershed must restore the site to pre-development (Greenfield) conditions. The associated 502 Technical Guidance was developed in May of 2010 to support implementation of the bill. Both could be referenced to reinforce the requirements on federal property within the state's regulations.	The 2007 Energy Independence and Security Act (EISA) is a federal statute that was passed independent of the Clean Water Act. There is no corresponding State requirement under the Virginia Stormwater Management Act in which to implement the requirements found in EISA. The EISA is not enforceable under the CWA or under State statute and as such the department does not see a need to include the non-CWA requirements for federal properties in these regulations.
David Nunnally (Caroline County)	There is no definition of "Comprehensive stormwater management plans" referenced in 4VAC50-60-92.	The department will be issuing guidance that will speak to any expectations regarding comprehensive stormwater management plans.
Richard Street (Spotsylvania County)	"Comprehensive stormwater management plan" - Edit to read Water quality and/or quantity components, of stormwater	The department believes the existing language is appropriate.
James Patteson (Fairfax County)	"Construction activity"- We recommend changing the definition to the following: "means any clearing, grading of excavation associated with development"	The terms used in this definition correspond to the terms utilized in federal regulations. No changes have been made.
James Patteson (Fairfax County)	"Direct discharge" – This definition doesn't say anything	The terms used in this definition correspond to the terms utilized in federal regulations. No changes have been made.
James Patteson (Fairfax County)	"Development" – It should be clarified that land disturbance activities under 2,500 square feet for Chesapeake Bay areas and under 1 acre for other areas are exempt in accordance with §10.1-603.8B.	Provided that they are not part of a common plan of development or sale, State law determines that these land disturbing activities are exempt from these regulations and thus are not replicated within these regulations. No changes have been made.
James Patteson (Fairfax County)	"Discharge Monitoring Report" - Why would a DMR be considered a "form?"	This definition is not applicable to this regulatory action. No changes have been made.
James Patteson (Fairfax	"Illicit discharge" – What about a nonpermitted discharge to a stream?	This definition is not applicable to this regulatory action.

County)		No changes have been made.
James Patteson (Fairfax County)	“Impervious cover” – What about water bodies and natural impervious cover like rock outcrops?	The word "manmade" has been removed from the definition at the commenter’s request.
Richard Street (Spotsylvania County)	“Impervious cover” – Remove the term “manmade” because compacted soil can be impervious. This will support Chesapeake Bay and soil compaction.	The word "manmade" has been removed from the definition at the commenter’s request.
James Patteson (Fairfax County)	“Localized flooding” - Given that localized flooding only occurs outside the stormwater conveyance system, it means that localized flooding will not occur on natural or restored conveyance systems. Natural or restored stormwater conveyance systems include the 100-year floodplain. Consequently, a 10-year storm would never be “outside of the stormwater conveyance system” for natural or restored systems. Localized flooding should be incorporated into flooding definition.	This was repeatedly discussed within the water quantity subcommittee. General consensus was reached within that subcommittee and the RAP as to the components of the water quantity section. No changes have been made.
James Patteson (Fairfax County)	“Manmade” – Is this definition really necessary?	This term is used in other definitions. No changes have been made.
James Patteson (Fairfax County)	“Natural channel design concepts” – We recommend revising the definition as follows: “means the utilization of engineering analysis based on fluvial geomorphic processes….”	The Department agrees. The change has been made at the request of the commenter.
James Patteson (Fairfax County)	“Nonpoint source pollution” – We recommend revising the definition as follows: “ means pollution such as sediment, nitrogen and phosphorus, hydrocarbons, heavy metals, and toxics that are washed….”	This definition is not applicable to this regulatory action. No changes have been made.
James Patteson (Fairfax County)	“Point of discharge” – We recommend changing to discharge point, its more common usage.	The Department did not feel this change was necessary.
James Patteson (Fairfax County)	“Pollutant” – The term does not include sediment, which is one of the pollutants in the Chesapeake Bay TMDL.	The terms used in this definition correspond to the terms utilized in federal regulations. No changes have been made.
Richard Street (Spotsylvania County)	“Pollutant discharge” - Need to revise because pollutant loads can come from irrigation, street washing etc. maybe just say "delivered by runoff".	The term is utilized in Part II C to address pollutant loads from stormwater only. No changes have been made.
James Patteson (Fairfax County)	“Prior developed lands” – The definition is not consistent with the definition for development. If you don’t plan on altering the impervious area, it leads one to believe that the land would not be considered prior developed lands.	In general, if there is no alteration to the existing impervious area, there is no land disturbance. The activity would not be considered a land-disturbing activity or a construction activity and would not be regulated under these regulations.
Richard Street (Spotsylvania County)	Regional (watershed-wide) stormwater management facility" and "Regional (watershed-wide) stormwater management plan” (these two definitions are striken)- Aren't regional facilities still being promoted through the new design manual and WIP programs? If so then we need some kind of definition that ties it their use.	The comprehensive stormwater management plan contemplates the use of regional or watershed controls. These two definitions were found not to be necessary.
James Patteson (Fairfax County)	“Runoff Characteristics” – Should include “velocity” to be consistent with other sections. Velocity is currently struck out.	The term “maximum velocity” has been added to the “runoff characteristics” definition at the request of the commenter. Velocity is an important component in

		determining proper site stabilization strategies and BMP selection. Runoff characteristic is a term utilized in the definition of land-disturbing activity which contemplates both water quality and quantity. The term "runoff characteristics" has also been added to 4VAC50-60-55 related to stormwater management plan elements.
Richard Street (Spotsylvania County)	"Runoff Characteristics" – Velocity needs to be included because flow rate and duration does not automatically calculate the actual velocity impacts of the flow. See USDA engineering handbook, USACoE channel flow circular, FHWA channel flows manual, Rosgen streambank restoration and ASCE circulars on velocity impacts.	The term "maximum velocity" has been added to the "runoff characteristics" definition at the request of the commenter. Velocity is an important component in determining proper site stabilization strategies and BMP selection. Runoff characteristic is a term utilized in the definition of land-disturbing activity which contemplates both water quality and quantity. The term "runoff characteristics" has also been added to 4VAC50-60-55 related to stormwater management plan elements.
James Patteson (Fairfax County)	"Site"- We foresee considerable potential for arguments related to application of Chesapeake Bay Resource Protection Area requirements arising from this change to the definition. We recognize that the State has jurisdiction over these sub-aqueous lands but these areas are included in platted lots and are subject to local control.	It was determined that this definition is appropriate in regards to this element.
James Patteson (Fairfax County)	"Small construction activity" – The definition should include land disturbance equal to or greater than 2500 square feet for Chesapeake Bay communities. This wording was in an earlier version of the regulations, but was removed. We recommend this wording be reinserted. The definition includes an option for the Board to waive applicable requirements in a general permit for a stormwater discharge where stormwater controls are not needed based on a TMDL or for nonimpaired waters. The waiver makes the regulation very complicated because different methodologies can be used to determine if stormwater controls are needed. In addition, many waters are not listed as impaired because they have not been monitored. This could only be applicable to waters that have been monitored and determined to be nonimpaired. We recommend deleting the waiver.	The state is more stringent based on state statute rather than federal regulations. Federal regulations only require permit coverage for land disturbing activities for 1 acre or greater. State law requires that smaller land disturbing activities in some jurisdictions meet these regulations. The waiver mentioned in the definition is an option included in federal regulations for NPDES permits. No changes have been made.
James Patteson (Fairfax County)	"Stormwater conveyance system" - As this definition is constructed, stormwater conveyance systems do not exist upstream of land disturbing activities. We recommend deleting the reference to land-disturbing activity.	The Department did not feel this change was necessary.
Richard Street (Spotsylvania County)	"Stormwater conveyance system" – Change "system means" to "systems mean" throughout the definition.	The department believes the existing language is appropriate.
James Patteson (Fairfax County)	"Stormwater discharge associated with construction activity" – The definition doesn't include the water associated with the discharge?	The definition has been modified to address this issue.

James Patteson (Fairfax County)	"Stormwater discharge associated with large construction activity" – Definition is not needed.	The terms used in this definition correspond to the terms utilized in federal regulations. No changes have been made.
James Patteson (Fairfax County)	"Stormwater discharge associated with small construction activity" – Definition is not needed.	The terms used in this definition correspond to the terms utilized in federal regulations. No changes have been made.
Steven Herzog (Hanover County)	We would suggest changing this definition to read: "Stormwater management plan" means a document(s) containing material for describing methods for complying with the requirements of the local program or this chapter.	The department agrees that this modification will provide a more inclusive definition. The change has been made.
James Patteson (Fairfax County)	"Virginia Stormwater Management Handbook" – The term "pertinent" is not needed in the definition. Definition should indicate that the handbook is adopted by the Board.	The department did not feel this change was necessary.
	4VAC50-60-20 Purposes	
James Patteson (Fairfax County)	The last sentence is confusing as to who is administering the local program (e.g. the Board does not administer the local program, it will be either the department or the locality.	This sentence has been revised to address the concern.
	4VAC50-60-30 Applicability	
Richard Street (Spotsylvania County)	After "administration of" strike "a".	This change has been made.
	4VAC50-60-47 Applicability of other laws and regulations	
James Patteson (Fairfax County)	First sentence - it seems redundant to list the Virginia Stormwater Management Act as "other laws and regulations."	The department did not feel this change was necessary.
	4VAC50-60-48 Grandfathering	
Michael Toalson (Home Builders Association of Virginia)	HBAV strongly supports the revisions to 4VAC50-60-48 relating to the so-called "Grandfathering" provisions in Part II. HBAV believes the proposed Grandfathering provisions are fair and balanced – protecting significant stormwater investments which were incurred prior to the current historic downturn in the nation's economy without compromising the impact of the Regulations. The Grandfathering provisions will also protect certain large stormwater management investments in large development projects that may extend beyond one (1) General Permit cycle.	The department appreciates the support for this Part of the regulations. Based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled "Time limits on applicability of approved design criteria". In our final draft we have clarified the limits of

		grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B.
Randy Williford (Loudoun County)	A. The period for grandfathering projects from the new technical criteria is too long (potentially up to three (3) permit cycles or 15 years). Consider revising the grandfathering period to one (1) permit cycle only. Longer grandfathering periods reduce the opportunity to address TMDL/Waste Load Allocation (WLA) requirements and create confusion regarding which standards apply to which projects. Notably, as a result of the "grandfathered" calculation methodologies in 4VAC-50-60-96, instead of utilizing the new BMP designs from the new Virginia Stormwater Management BMP Clearinghouse, engineers will be using outdated designs, up to 25 years old.	Based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled “Time limits on applicability of approved design criteria”. In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land requirements. The regulations allow and we encourage the use of the updated design specifications available on the BMP Clearinghouse website if the engineer chooses to do so.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	The period of grandfathering appears excessive. Recommend changing extension from two additional permit cycles to one permit cycle, reducing estimated coverage through grandfathering from 2023 to 2018.	Based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft)

		is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled “Time limits on applicability of approved design criteria”. In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land requirements.
Steven Herzog (Hanover County)	Should clarify that previously constructed areas of the project are also not subject to any new standards. Suggest modifying this line to read "portions of the project not under construction or previously constructed, shall become ...".	The department has not made any changes to this definition as we believe the existing language is appropriate and ensures that portions of projects not under construction will become subject to the new criteria.
Randy Bartlett (Virginia Municipal Stormwater Association)	As written, the “grandfathering” provision lacks clarity, which could make it difficult to administer and might lead to inconsistent application by the various localities. In this particular instance, a picture may well be worth a thousand words. VAMSA respectfully requests that, prior to the effective date of the regulations, DCR staff develop a process flow chart to include in guidance to clarify the “grandfathering” provisions.	Based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled “Time limits on applicability of approved design criteria”. In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. As determined to be necessary, the Department will also

		produce guidance.
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	The proposal includes far-reaching project grandfathering terms that are inconsistent with the Clean Water Act and jeopardize Virginia's compliance with the Bay TMDL. CBF recommends changing proposed 4VAC50-60-48 to address the problems outlined above by deleting subpart A in its entirety, changing the proposed end date for grandfathering exemptions from 2019 to 2014, and allowing for exceptions, where warranted, for situations involving public funding or bonding.	The department respectfully disagrees that the section is not protective of water quality. However, based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled "Time limits on applicability of approved design criteria". In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
William Street and Adrienne Kotula (James River Association)	While JRA recognizes that the currently proposed grandfathering standards are an improvement upon the current standard, it needs to be acknowledged that the impact upon water quality that will result from the proposed grandfathering provisions is unknown. Given that the proposed grandfathering provisions apply not only to those issued permit coverage under the July 1, 2009 permit for two permits cycles, but also to any land-disturbing activity with valid proffers, conditional zoning, plat, or plan approval prior to July 1, 2012 (that has not been granted permit coverage prior to July 1, 2014) until June 30, 2019, the water quality impacts could be significant. The recently issued Chesapeake Bay Total Maximum Daily Load (TMDL) included a commitment from Virginia to ensure that all new development would meet the pre-development land use load, and the	The department respectfully disagrees that the section is not protective of water quality. However, based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative

	Clean Water Act (CWA) mandates that stormwater discharges be regulated in a manner that protects water quality to the maximum extent practicable. The proposed grandfathering provisions threaten the state's ability to meet the TMDL promise and the CWA mandate due to their widespread and unknown scope. JRA urges DCR to consider a grandfathering standard that is more limited in scope and which includes mechanisms to track and offset the additional pollution from grandfathered projects in order to be consistent with the Chesapeake Bay TMDL and the CWA.	process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled "Time limits on applicability of approved design criteria". In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
Nicole Rovner (The Nature Conservancy)	As currently presented, the proposed amendments contain one significant flaw that we recommend DCR and the Board address prior to finalizing the proposed amendments. In short, the extensive and lengthy grandfathering provisions included in the proposed amendments appear likely to delay the implementation of the new technical criteria (and thus the actual realization of many of the benefits of the proposed amendments, including those outlined above) for some projects until 2019 or, in some cases, as late as 2029. The grandfathering issue has been a part of the debate over these proposed amendments for nearly two years. As we have stated previously in written and oral comments on the proposal, the Conservancy recognizes that grandfathering is a legitimate issue and that DCR and the Board do need to ensure that the proposed amendments do not impose an unfair or unreasonable burden by changing the rules on projects that have already secured their requisite site and stormwater approvals and, in some cases, are already under construction. The project grandfathering provisions included in the proposed amendments go much further than that, however, and we question whether these provisions will allow Virginia to adhere to its Watershed Implementation Plan for the Chesapeake Bay Total Maximum Daily Load. Virginia's WIP calls for no net increase from stormwater-derived nutrient and sediment pollution. As it seems to be widely accepted that the new technical criteria in Part II B of the regulation are one key way Virginia will meet this no net increase commitment, it is difficult to reconcile the inclusion of grandfathering provisions that may delay the effective date of the regulations for a sizeable number of development projects until after the scheduled completion date of the TMDL. We urge DCR and the Board to	The department respectfully disagrees that the section is not protective of water quality. However, based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled "Time limits on applicability of approved design criteria". In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not

	consider this issue carefully. If you are willing to consider alternative language for this section to address these concerns, we submit that the language that the Chesapeake Bay Foundation is proposing, or something very close to it, represents a much better way to address grandfathering.	grandfather projects from any regulated land disturbing requirements.
David Nunnally (Caroline County)	Allow a program authority to adopt a more stringent timetable or other provisions in order to reduce the multi-tiered provisions and associated criteria.	It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements. We do not see that provisions to allow for more stringent requirements by a locality are necessary or fair to the development community.
Lalit Sharma (City of Alexandria)	The period of grandfathering for two additional permit cycles beyond the expiration of the current CGP in June 30, 2014, would mean that these construction activities would be exempt from these proposed stormwater regulations through June 30, 2024. The end date to meet reduction in the Chesapeake Bay TMDL is 2025. Therefore, these construction activities would not be participating in the reductions needed and this would place an unfair burden on other sectors to make up the difference. Those maintaining coverage would get an additional two permit cycles, which would mean non-participation for those sites out to 2034. We feel this is too long and a shorter period may be more appropriate to protect the Chesapeake Bay and help ensure that localities can meet their Phase II Watershed Implementation Plan (WIP) requirements.	Based on comments received we have made several minor clarifications to this section. While not called grandfathering by EPA, subsection A (in public comment draft) is not inconsistent with the current federal administration of permits. Furthermore, this provision is more stringent than current operating practice by either EPA, based on our current understanding, or Virginia. Additionally, as Subsection A (in public comment draft) is more of an administrative process, we have separated that subsection from grandfathering in our final draft and placed it in a new section numbered 4VAC-50-60-47.1 entitled “Time limits on applicability of approved design criteria”. In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
Marc Aveni (Prince William County)	Prince William County has concerns about the grandfathering/vesting being extended to rezoning, preliminary and final plans for two permit cycles (10 years) and beyond. While the County understands the reasonable assurance that the developers need for going through the plan submissions and investing their time and resources, the County’s concern is more on the burden conveyed over to the taxpayers. In other words, the localities will be required to compensate for the water quality deficiencies of the	It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements. We do not see that provisions to allow for more stringent requirements by a locality are necessary or fair to the development community.

	grandfathered projects for a 10-year period or more in order to comply with the TMDL regulations. There are no regulatory tools to regulate the pollution originating from existing developments by imposing requirements to the owners of existing developments. The additional pollution control from the existing developments totally rests on the County; considering that, it is difficult to justify a lenient grandfathering approach. The County requests the State to retain the authority for the localities to develop their own individual grandfathering regulations. This way, the localities can develop broader guidelines while retaining provisions for mitigating circumstances that take into account of socio-economic factors.	
Michael Bumbaco (City of Virginia Beach), Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	Administration of grandfathering requires review of existing permits for applicability to the conditions and dates stated in this section. We request the department manage the grandfathered permits, when allowed by law, to ensure conformance to the regulations. Otherwise, detailed and substantial guidance, assistance, and funding may be necessary to facilitate conforming administrative procedures by the local permit-issuing authority.	It is the department's determination that the local stormwater management programs will be required to manage the grandfathered permits. The department intends to provide guidance to assist with conforming administrative procedures.
J.R. Tolbert and David Bernard (Sierra Club, Virginia Chapter)	The grandfathering provisions will slow the Commonwealth's ability to comply with the Chesapeake Bay Total Maximum Daily Load (TMDL). As written, the grandfathering provisions include any land in which the development process has been undertaken. This could simply be the filing of a plat for future development. This is a broad giveaway to developers and hamstrings local governments. Any new development that has not yet broken ground should be treated as a Greenfield and required to meet the most stringent standards of the stormwater rules.	Under section B (in public comment draft), a grandfathered project must have received locality approval of a proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development or other suitable development prior to July 1, 2012, not just filed a plat. In our final draft we have also clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
J.R. Tolbert and David Bernard (Sierra Club,	Section B sets a future date as the end of the grandfathering provision. This is in direct conflict with the acceptable idea that development might	Under section B (in public comment draft), a grandfathered project must have received locality

Virginia Chapter)	already be underway and therefore the state should not halt said development. Furthermore, Section B crates a nefarious situation where slow state action, for any reason, between July 1, 2012 and July 1, 2014 could create a host of projects that have been deemed "grandfathered". This scenario could have the unintended consequence of allowing outdated standards to guide development for an unacceptable period of time.	approval of a proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development or other suitable development prior to July 1, 2012, not just filed a plat. There is no state action involved in the subsection B process so it is unclear how additional projects could be deemed grandfathered under this provision beyond July 1, 2012. In our final draft we have also clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
James Patteson (Fairfax County)	We recommend that instead of providing specific grandfathering rules to the regulations that the regulations simply provide an allowance for localities to enact grandfathering at the time of local program adoption. The authority and responsibility that comes with running the local program should include the ability to adopt grandfathering provisions that best suit the jurisdiction.	To ensure consistency in a statewide program, all jurisdictions must enact the grandfathering rules. No changes were made.
James Patteson (Fairfax County)	Grandfathering for coverage under the VSMP permit – it is our understanding that DCR does not review plans in association with permit issuance. Thus, it is very unclear as to the extent to which a project has to be engineered in order to be grandfathered.	For section A (in public comment draft), the land disturbing activity will have received permit coverage and had to meet local requirements in order to commence land disturbance. For section B (in public comment draft), the land disturbing activity must have received local approval on of a proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development or other suitable development prior to July 1, 2012. Those plans must be consistent with local requirements in order to be approved.
James Patteson (Fairfax	The grandfathering proposed may hamper the localities in their ability to	These regulations address statewide design criteria for

County)	address the requirements of their MS4 permits, particularly those MS4 permits subject to the Chesapeake Bay TMDL. This may require localities to retrofit more improvements because certain developments are grandfathered for such an extensive period of time.	construction activities. These regulations are not intended to develop criteria to assist with meeting TMDL wasteload allocations for MS4s. However, TMDL language in 4VAC50-60-63 C (in public comment draft) (now moved to 4VAC50-60-54 E.) requires additional control measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a State Water Control Board approved TMDL.
James Patteson (Fairfax County)	A. Recommend changing the wording as follows: "…remain subject to those criteria for an additional two permit renewals, except.." In the second sentence, we recommend change the word "passed" to "expired".	The language has been clarified to speak to two additional "permit cycles". We believe that the word "passed" is more appropriate.
James Patteson (Fairfax County)	B. The first sentence, "conditional zoning plan: should be "conditioned zoning plan".	The department did not feel this change was necessary.
Lalit Sharma (City of Alexandria)	B. This should not include "zoning with a plan of development" as it is too broad. What exactly constitutes a "plan of development?" All the other plans listed are sufficient to fulfill the intent of this section.	This language was thoroughly discussed within the RAP and its grandfathering subcommittee. No changes have been made.
Dwight Farmer (Hampton Roads PDC)	Extending Grandfathering technical criteria in Part II for an additional two permit cycles is outside the scope of the current intended regulatory action.	The department is comfortable that the grandfathering provisions are covered under the scope of the Notice of Intended Regulatory Action.
Dwight Farmer (Hampton Roads PDC)	The grandfathering language allows land disturbing projects receiving General Permit coverage before 2019 , but subject to the grandfathered technical criteria in Part IIC, to be covered under the grandfathered technical until 2029. Localities question whether this change is consistent with other Parts of the VSMP that address permit duration and reissuance requirements. The localities also question whether such a generous grandfathering provision is consistent with implementing post construction technical criteria to improve water quality and meet Chesapeake Bay TMDL milestones.	In our final draft we have clarified the limits of grandfathering for newly lettered subsections A and B (B and C in public comment draft) to specify that construction must be completed by June 30, 2019 or portions of the project not under construction shall become subject to the technical criteria of Part II B. It also should be noted that grandfathering is only applicable to post-construction standards and does not grandfather projects from any regulated land disturbing requirements.
	4VAC50-60-51 Chesapeake Bay Preservation Act land-disturbing activity	
Michael Bumbaco (City of Virginia Beach), Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	Based on the references to other sections of the regulations, it is presumed that this section does not apply to grandfathered land disturbing activities. Please provide a statement in this section indicating grandfathered Chesapeake Bay Preservation Act land-disturbing activities may comply with Section 4VAC50-60-48 and Part IIC instead of Part IIB.	It is not the intent of the department to allow grandfathering of these sites. Localities may allow grandfathering of these sites in accordance with their vesting and grandfathering ordinances. In general most construction projects are completed within the original permit cycle.

Amar Dwarkanath (City of Chesapeake)	This section appears to conflict with the existing Chesapeake Bay Preservation Area (CBPA) Act requirements. Will the CBPA Act be revised to reflect the more stringent requirements?	These technical criteria will apply to Bay Act. Section 10.1-603.3 I stipulates that "[a]ny local stormwater management program adopted pursuant to and consistent with this article shall be considered to meet the stormwater management requirements under the Chesapeake Bay Preservation Act (§ 10.1-2100 et seq.) and attendant regulations". We intend to amend the Chesapeake Bay Preservation Area (CBPA) Act requirements.
Steven Herzog (Hanover County)	Chesapeake Bay Preservation Act Land disturbing Activities should be given the same grandfathering provisions as other projects. As currently written, it appears that these projects will immediately be subject to the new regulations.	It is not the intent of the department to allow grandfathering of these sites. Localities may allow grandfathering of these sites in accordance with their vesting and grandfathering ordinances. In general most construction projects are completed within the original permit cycle.
Randy Bartlett (Virginia Municipal Stormwater Association)	As drafted, the section includes express references to a number of other regulations; however, it does not expressly reference 4VAC50-60-48, the "grandfathering" section. VAMSA recommends that DCR clarify the interaction of 4VAC50-60-51 and 4VAC50-60-48. VAMSA suggests that DCR add a new subsection J as follows, "J. Chesapeake Bay Preservation Act land-disturbing activities grandfathered pursuant to 4VAC50-60-48 may comply with the provisions thereof and Part II C of these Stormwater Management Regulations instead of Part II B."	It is not the intent of the department to allow grandfathering of these sites. Localities may allow grandfathering of these sites in accordance with their vesting and grandfathering ordinances. In general most construction projects are completed within the original permit cycle.
Lalit Sharma (City of Alexandria)	In developed, urban areas where many of the projects qualify as a CBPA land-disturbing activity, not requiring a General Permit for Stormwater Discharges Associated with Construction Activities (CGP), but requiring the project to follow the technical criteria in these regulations; means that the locality still has to review the new criteria, allow an offset program, and maintain a robust BMP inspection and enforcement program. Accordingly, the locality will have to create a permitting program – including additional fees in excess of current fees – not associated with a CGP.	That is the intent of this section.
Lalit Sharma (City of Alexandria)	This section also allows sites in the Chesapeake Bay Preservation Act area to operate without a Stormwater Pollution Prevention Plan (4VAC50-60-54).	This section still requires plans for erosion and sediment control and post-development but does not require a pollution prevention plan.
	4VAC50-60-54 Stormwater pollution prevention plan content	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Stormwater Pollution Prevention Plans (SWPPP) are part of the construction permit process and should not be included in these post-construction stormwater regulations. These regulations should move to, "Part XIV General Virginia Stormwater Management Program (VSMP)	Part II of the regulations speaks to both construction and post-construction requirements. The department believes the language is appropriate and no changes have been made. Additionally, most of the details of the

	Permit for Discharges of Stormwater from Construction Activities 4VAC50-60-1170. General permit. SECTION II STORMWATER POLLUTION PREVENTION PLAN.	general permit are supposed to be promulgated through the APA process outside of the general permit and the general permit is to largely reference these other sections and requirements to the greatest extent practicable. These regulations also establish the requirements necessary of local programs to be considered "qualifying local programs under federal regulation. As a result, local programs must be as at least as stringent as the general permit. Therefore, the regulatory requirements must be established for local implementation outside of the general permit.
John Salm, III (J.W. Salm Engineering, Inc.)	Will the local program also review Stormwater pollution prevention plan (SWPP)?	Stormwater pollution prevention plans have to be developed before land disturbing activities commence and must be available for inspection. Approval by the stormwater management authority is not required.
David Nunnally (Caroline County)	A. The required plans may be one and the same document as allowed by the local program authority.	The stormwater pollution prevention plan contains plans approved by the program authority plus any additional site specific and project specific requirements needed to meet the requirements of these regulations.
Marc Aveni (Prince William County)	The definition of the stormwater pollution prevention plan has been expanded to incorporate adequate outfall requirements, steep slopes, buffers, preserving topsoil at the site, and much more. The County recommends that the definition or the content of the stormwater pollution prevention not be expanded by incorporating other elements duplicated in other policies and regulations.	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations.
Marc Aveni (Prince William County)	The County acknowledges the need and intent of the provision on "Minimize soil compaction and, unless infeasible, preserve topsoil". However, the regulations do not offer guidelines on how to regulate and enforce this provision.	The department understands the issue being raised but reiterates that the Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations. The department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA. However, it should be noted that the department is working towards better integration of stormwater management and erosion and sediment control and will likely provide additional specificity to this section in future amendments.

Randy Williford (Loudoun County)	E. In the opening sentence of § E., indicate that the local program requirements must also be met in the SWPPP: "...to the extent otherwise required by state law or regulations and local program requirements…"	No changes have been made. This is a state permit and federal permit. Local requirements are not applicable to state and federal projects. The locality has the ability to be more stringent in its requirements.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	E. 1. and E. 2. seem similar. Both section reference volume but not all of the options for water quantity (4VAC 50-60-66) define volume as the water quantity criteria. This may cause some confusion in future reviews of SWPPP's and should be revised.	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations. The department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA.
David Nunnally (Caroline County)	E 4. This statement is misleading. Steep may be disturbed, completely, preferably, re-contoured to a more stable condition, in the overall grading plan.	This language has been copied from federal language and no changes have been made.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	E. 5. References design of facilities that must address "the range of soil particle sizes expected to be present on the site." Do these controls defined in the VESCH already account for these characteristics?	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government under the CWA and that are required to be included by delegated states in their regulations. We expect that the Erosion and Sediment Control Law and regulations will help in state clarification of the ELGs; however, the department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA
David Nunnally (Caroline County)	E. 6. What is meant by "provide and maintain natural buffers…"? Is this in addition to (or something other than) the existing CBPA RPA buffer requirements.	This language has been copied from federal language and no changes have been made. We anticipate the development and publication of additional guidance that will help in providing clarification of the ELGs. It is our understanding that EPA's proposed construction general permit provides additional details on this subject that advance their thoughts regarding necessary widths of buffers.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	E. 6. Regardless of your opinion of whether buffers should be required, these regulations provide no clarification other than to say that they are required around surface waters unless infeasible. The opening paragraph of the section includes a disclaimer that all the requirements (including buffers) are to be addressed "to the extent otherwise required by state law or regulations and any applicable requirements of a VSMP permit" which is to say that they are required where already required: in the CBPA areas (that are not exempted or opted out) of Tidewater VA.	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations. . We anticipate the development and publication of additional guidance that will help in providing clarification of the ELGs; however, the department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA.
Donald Rissmeyer	E. 6. "Provide and maintain natural buffers around surface waters…" No	The Effluent Limitation Guidelines are water quality

(Virginia Section American Society of Civil Engineers)	dimension is stated, recommend minimum of 100 feet.	criteria adopted by the federal government and that are required to be included by the state in our regulations. We anticipate the development and publication of additional guidance that will help in developing clarification of the ELGs; however, the department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA.
Randy Williford (Loudoun County)	E. 8. The 14 calendar days allotted for dormant areas to be stabilized is too long and is not consistent with the 7-day requirement found in Minimum Standard #1 in the Virginia Erosion and Sediment Control Regulations (4VAC-50-30-40). Modify the language to be consistent with the current State Minimum Standard.	The language in the regulations requires the stabilization of disturbed areas to be initiated immediately. The federal requirements are more stringent than the state's erosion and sediment control regulations. The department is aware of this conflict but is required to implement the more stringent requirement under federal law.
David Nunnally (Caroline County)	E. 8. Reference to 14 days is not consistent with existing E&S Regulations.	The federal requirements are more stringent than the state's erosion and sediment control regulations. The department is aware of this conflict but is required to implement the more stringent requirement under federal law.
Alice Kelly (City of Norfolk), Dwight Farmer (Hampton Roads PDC)	Localities are aware that Virginia is required to incorporate EPA's recently approved "Effluent Guidelines for Discharges from the Development Industry," however we disagree with the decision to include them in Part IIA. These guidelines should be in Part XIV of the General Virginia Stormwater Management Program (VSMP) Permit for Discharges of Stormwater from Construction Activities. When DCR does incorporate EPA's requirements into the General VSMP permit section of the stormwater regulations, localities requests that DCR define the terms used in this section.	The department believes it is appropriate for these standards to be included in Part II with other applicable water quality and quantity standards.
Amar Dwarkanath (City of Chesapeake)	We do not believe the “Effluent Guidelines for the Develop Industry” developed by EPA for NPDES permits issued for land disturbing activities should be referenced in this section of the regulations. These Effluent Limit Guidelines (ELGs) are more appropriate in Part XIV (4VAC50-60-1170 General permit. Section II) once this section of the regulations is reopened n 2012. The requirements are out of context and not clearly defined as currently written and we disagree with DCR’s decision to include them in this section.	This language has been copied from federal language and no changes have been made. The department believes it is appropriate for these standards to be included in Part II with other applicable water quality and quantity standards.
Dwight Farmer (Hampton Roads PDC)	Incorporating the EPA’s Effluent Limitations Guidelines and Standards in Part II is outside the scope of the current intended regulatory action.	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government. The Notice

		of Intended Regulatory Action allows the board to adopt water quality criteria.
Steven Herzog (Hanover County)	From discussions with DCR staff, we understand that this specific language might be required by the EPA. If this language is required to be included by federal regulations, we have no comment on them and support how DCR has incorporated them. If the specific language is not required to be incorporated into state regulations, we believe that Virginia implements these general federal standards through specific statewide regulations and these general standards need not be addressed on a site by site basis and this language should be removed from the regulations.	The Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations.
William Street and Adrienne Kotula (James River Association)	While JRA recognizes that the content contained within this section of the draft regulations stems from the U.S. Environmental Protection Agency's Effluent Limit Guidelines, the lack of specificity accompanying these requirements is concerning. Not only are the requirements themselves vague (minimize soil erosion, maximize stormwater infiltration) but the inclusion of the statement that these requirements apply, "to the extent otherwise required by state law or regulations and any applicable VSMP permit" is misleading due to the fact that the many of the listed requirements are not currently addressed by state law or regulations across the Commonwealth. The absence of firm standards accompanying these requirements has the potential to result in inequitable implementation and an inability to enforce the requirements. JRA would urge DCR to consider the inclusion of more detailed, enforceable language within this section of the regulations.	The department understands the issue being raised but reiterates that the Effluent Limitation Guidelines are water quality criteria adopted by the federal government and that are required to be included by the state in our regulations. The department was concerned about making interpretations of these federal guidelines until additional enforceable details are provided by the EPA. However, it should be noted that the department is working towards better integration of stormwater management and erosion and sediment control and will likely provide additional specificity to this section in future amendments.
	4VAC50-60-55 Stormwater management plans	
John Salm, III (J.W. Salm Engineering, Inc.)	Shouldn't the plan also consider surface runoff converted to subsurface and groundwater flows?	No, NPDES regulates the discharges to surface waters.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	B. 2. Why is anything beyond what can be found on public records required for the plans, like phone numbers?	The department believes that the requested elements are appropriate and necessary to inform the plan reviewer and other oversight authorities.
James Patteson (Fairfax County)	B. 5. Indicates that geographic coordinates are required. We recommend indicating on what system these geographic coordinates should be based.	Many local governments do not use the same system to define geographic coordinates. It is the decision of the stormwater program administrative authority as to what system the geographic coordinates will be based on.
David Nunnally (Caroline County)	B. 6. Add "as deemed necessary by the program authority".	The department did not feel this change was necessary as the regulations provide details on what computations are necessary.
Randy Williford (Loudoun County)	B. 8. b. Add the word "floodplain" to the sentence: "Existing streams, ponds, culverts, ditches, wetlands, other water bodies and floodplain."	The addition of the term "floodplain" has been added at the request of the commenter.

David Nunnally (Caroline County)	B. 8. h. “Easements” is a general term and should be more specific (and relative to the SWM plan).	No changes have been made but the intent is to deal with easements that are relevant to stormwater or those that protect water quality.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	B. 9. should be numbered B. 10.	The correction has been made.
Lalit Sharma (City of Alexandria)	B. 10. States that if payment is required with the plan submission, it should be in accordance with Part XIII; however, no fee schedule is provided outside of VSMP permits.	Correct, all payments are done in accordance with Part XIII including partial payments that are required as part of the submission of the stormwater management plan.
David Nunnally (Caroline County)	C. Add “as deemed necessary by the program authority”. Many land disturbing activities do not need this level of planning. Requiring a professional seal is unreasonable burdensome. Ex/small, low impact, short duration activities.	Amendments to this subsection have been made to address this issue.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	C. and D. Can the professional signing and sealing drawings be something other than a professional engineer? Is this appropriate given the hydraulic nature of stormwater treatment devices, typically requiring engineering calculations.	Pursuant to the language of the regulation any professional registered in the Commonwealth of Virginia pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 may sign and seal plans. This was the advice of the technical advisory committee and was not altered by the recent work of the regulatory advisory panel. It should be noted that amendments to this section have also been made, but none that would limit those that can sign and seal.
James Patteson (Fairfax County)	D. Does not mention the exception allowed under 4VAC50-60-108.	Changes have been made to clarify language.
David Nunnally (Caroline County)	D. Allow for ‘e-drawings’.	We do not believe there is anything in this regulation that would preclude the submittal of “e-drawings”. Additionally, 4VAC50-60-108 B 2 allows for the use of electronic communication to be considered communication in writing.
James Patteson (Fairfax County)	D. We recommend adding “as required by the local program”.	Per the regulations, construction record drawings are required for all facilities except those designed to treat stormwater runoff primarily from an individual residential lot on which they are located. Construction drawings are required for all other facilities. A correction to an incorrect reference in 4VAC50-60-108 has been made that may help clarify this intent. No changes to 4VAC50-60-55 D have been made.
Donald Rissmeyer	D. Professional must be notified prior to installation and covering of a	The department acknowledges the commenter’s

(Virginia Section American Society of Civil Engineers)	stormwater facility in order to provide a certification. This could create logistical problems.	concern but believes that the requirement is viable as various phases of development already require coordination between the contractor and various designers, regulators, or inspectors.
	4VAC50-60-56 Pollution prevention plans	
James Patteson (Fairfax County)	A. It is not clear what must be done with the pollution prevention plan after it is prepared. We suggest amending Paragraph A as follows: *A. A plan for implementing stormwater pollution prevention measures during construction activities shall be developed and implemented. The pollution prevention plan shall be updated to remain current with the construction activities and a copy of the updated plan shall be available at the construction site. The pollution prevention plan shall detail……*	Language has been included to address this issue.
James Patteson (Fairfax County)	Since the local program will be responsible for ensuring that the pollution prevention plan is developed, updated and implemented (see 4VAC50-60-114 Inspections), will DCR provide guidance to assist the local program in interpreting the broad requirements set forth in 4VAC50-60-56? Will this be covered in the Stormwater Management Handbook? There is much room for interpretation and more detailed guidance would therefore be helpful.	The department intends to provide guidance to assist with interpretation of the pollution prevention plan requirements. This will not be covered in the Stormwater Management Handbook.
James Patteson (Fairfax County)	A. 1. states that "Wash waters must be treated in a sediment basin." It is not practical to drain wash water to a sediment basin. Draining to a sediment trap as a minimum is more appropriate and practical.	The actual language, as dictated by federal regulation, is ". . . in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge." The current language does not limit the treatment to sediment basins. No changes have been made.
	4VAC50-60-58 Responsibility for long-term maintenance of permanent stormwater management facilities	
Randy Williford (Loudoun County)	This Section contemplates that all maintenance will be the responsibility of the property owner. In order to accommodate localities who elect to maintain stormwater infrastructure, this section should be amended to read (in conjunction with recommended edits to Section 4VAC50-60-112): "If required in accordance with 4VAC50-60-112, a recorded instrument shall be submitted to the stormwater management administrative authority ~~in accordance with 4VAC50-60-112~~."	The department does not speak to who is responsible for the maintenance of stormwater management facilities. Even if a locality has assumed the responsibility for these facilities, all the requirements listed in 4VAC50-60-112 will still need to be documented through a recorded instrument. No changes have been made.
	Part II B	
Randy Williford (Loudoun County)	Rework the order of Part II B so that all water quality issues are addressed together (e.g., 4VAC50-60-63. Water quality design criteria requirements and 4VAC50-60-65. Water quality compliance, needs to be co-located with 4VAC50-60-69. Offsite compliance options) and all water quantity issues are addressed together.	The department does not feel this change is necessary. No changes have been made.

	4VAC50-60-62 Applicability	
James Patteson (Fairfax County)	We recommend that the regulations recognize the value of stormwater retrofits for the purpose of environmental improvement. Although retrofits may be a land-disturbing activity, they should not be subject to the water quality and water quantity requirements outlined in Part IIB. Many localities, particularly MS4s, have stormwater retrofit programs where they try to achieve the best water quality and/or water quantity improvements given existing constrained conditions. If these programs were required to comply with the water quality and water quantity requirements in Part IIB, certain retrofits could not be implemented due to a lack of space or cost, and the overall result would be less environmental benefit.	While the department recognizes the value of retrofits for the purpose of environmental improvement. The federal regulations do not provide for an exemption for these types of land disturbing activities. No changes have been made.
	4VAC50-60-63 Water quality design criteria requirements	
Michael Toalson (Home Builders Association of Virginia)	HBAV would like to highlight its support for the water quality design criteria in Part II, particularly the .41 total phosphorus load limit for new development. HBAV believes the limit is based upon sound science and past Virginia development patterns and will result in an improvement in water quality in Virginia in the future. Even this standard will be difficult and impracticable to achieve on many sites with constraints or use restrictions, however, unless a vibrant trading program is developed sooner rather than later.	The department appreciates the support for this Part of the regulations.
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	The statewide phosphorus water quality criterion was established based on a reasonable application of the relationship between land cover and the condition of the receiving streams. In the future, CBF will advocate for a different criterion or approach for the protection of local streams and the Bay if new regulatory requirements or new information warrant re-evaluation of the criterion.	The department concurs that a statewide standard has been selected by the RAP that is protective of water quality and that is based upon sound science.
William Street and Adrienne Kotula (James River Association)	The water quality criteria for new development (0.41 pounds of total phosphorus per acre) will help advance Virginia's efforts to meet and maintain water quality standards set by the Commonwealth. The pollution reductions required in re-development projects will make significant reductions from existing development without discouraging re-development. The water quantity criteria strengthen protection of local receiving streams and creeks to prevent damage to downstream environments and property from flooding and erosion. The regulations incorporate the considerable advances made in stormwater science and management over the past ten to twenty years. In particular, they give a more accurate accounting of the pollution loads and runoff associated with different land covers, such as lawns and disturbed soil areas, which are not addressed at all in the current regulations.	The department concurs that a statewide standard has been selected by the RAP that is protective of water quality and that is based upon sound science.

	The regulations provide a sound approach to utilize low impact development practices while not requiring or imposing them in situations where they are not appropriate. The regulations incorporate rigorous BMP standards and specifications which will ensure proper design and construction of the facilities in order to provide maximum water quality benefits.	
Nicole Rovner (The Nature Conservancy)	The establishment of a reduced statewide phosphorus water quality standard is important, as stormwater threatens waterways across the commonwealth, both within the Chesapeake Bay watershed and in other drainage basins, including the Chowan, Roanoke, New, and Tennessee. The Conservancy has long advocated for regulations that provide equal protection for all of Virginia's waters, and we commend this approach in the proposed amendments. While the Conservancy did not participate directly in the discussions and decisions that produced the proposed 0.41 pounds per acre per year phosphorus standard, it appears to be reasonable. In addition, it also appears to be a real step forward, especially when considering that the proposed amendments require treatment of larger storm events and include managed turf in load calculations. That being said, there are also some indications that by using the high end of impervious cover (10 percent) in the calculations, this standard, while an improvement, may not be low enough to prevent some level of continued degradation of water quality and stream health. Our reservations on this front are not strong enough for us to recommend a stricter standard at present, but we feel they are important to note at this stage.	The department concurs that a statewide standard has been selected by the RAP that is protective of water quality and that is based upon sound science.
Marc Aveni (Prince William County)	Prince William County supports the proposed more stringent twenty-percent total phosphorous removal requirement for the entire site. This will help in mitigating the pollution originating from existing developments. However, the County also realizes the fact that this provision will be rather difficult to implement for redevelopments with no net increase in impervious area and furthermore, in applying the entire new development regulations for any small increase in the impervious area in redevelopments. The proposed regulations have feasibility constraints for implementation. Some flexibility may be desirable for circumstances with difficulties for implementation.	These regulations address these concerns through the use of offsets and off-site options in 4VAC50-60-69. Additionally, 4VAC50-60-122 does provide a process by which exceptions to the provisions of Part II B or Part II C may be considered.
Daniel Proctor (Williamsburg Environmental Group)	The new regulations do not clearly address sites that are already treated by an existing stormwater facility that was designed in accordance with prior regulations. What if a site is re-developed or a new infill development occurs on land that is already treated by a stormwater management practice. If that practice is left alone, and the site improvements comply with the design parameters used for the original design of the practice, I do	These regulations address these concerns through the use of offsets and off-site options in 4VAC50-60-69. The department believes the existing language is appropriate and will develop guidance to assist with implementation.

	not feel like additional controls should be required. However, regardless of the presence of existing controls, the new regulations appear to require a 20% reduction in existing P-load per the water quality requirements and "energy" per the channel protection requirements (10% for small sites). "Situation 4" of the previous regulations addresses such a condition, and I feel like similar language is warranted for the new regulations (both water quality and channel protection). Alternately, if the regulatory language isn't modified, I would recommend a guidance document to be developed by DCR highlighting this issue and what policy decisions are intended for such situations.	
Daniel Proctor (Williamsburg Environmental Group)	When a site re-develops and achieves the reductions required by the regulations… shouldn't any future re-developments that may occur after that point merely maintain the reduced P-load per the water quality requirements and "energy" per the channel protection requirements? I do not think it would be appropriate to require incremental reductions to occur for sequential re-developments, but that language should be added that allows the initial reductions to be considered enough for compliance. Alternately, if the regulatory language isn't modified, I would recommend a guidance document to be developed by DCR highlighting this issue and what policy decisions are intended for such situations.	These regulations address these concerns through the use of offsets and off-site options in 4VAC50-60-69. The department believes the existing language is appropriate and will develop guidance to assist with implementation.
Keith White (Henrico County)	A provision needs to be added to this section to address the redevelopment of sites that have complied with these requirements previously so that repeated 10% or 20% reductions aren't required. See Situation Four in the water quality section of the current regulations.	These regulations address these concerns through the use of offsets and off-site options in 4VAC50-60-69. The department believes the existing language is appropriate and will develop guidance to assist with implementation.
James Patteson (Fairfax County)	A. 1. Uses a site-based load limit (0.41 lbs./acre/year). An objective of the Chesapeake Bay Preservation Act is to "prevent a net increase in nonpoint source pollution from new development…." Although the proposed site-based load limit for phosphorus was designed as a statewide standard to achieve no net increase compared to non-urban land, it will not achieve no net increase resulting in a net pollutant load increase on certain site developments and/or the DCR's 6th order HUC scale. For certain development, the site-based load limit allows for an increased load above the current standard that uses pre-development loading rates. In addition, the site-based loading is not consistent with the Chesapeake Bay TMDL since there is no Waste Load Allocation for new development. Certain land disturbing activities will result in a net increase in pollutant loads at the site level and/or Chesapeake Bay segment.	It is the opinion of the department that these regulations will not cause or contribute to any impairments as the statewide standard is protective of water quality. In fact, the department believes this standard will lead to a decrease in the amount of pollutants entering the Chesapeake Bay. Virginia is implementing the necessary reductions on a statewide programmatic basis.
Dwight Farmer (Hampton Roads PDC)	A. 1. The previous exception allowing more favorable treatment of urban development areas (UDAs) has been struck from the proposed regulations.	It was decided by the RAP that all local waters are worth protecting, regardless of where they are located. The

	The purpose of the UDA statute, Va. Code §15.2-2223.1, is to promote smart growth and discourage urban sprawl by encouraging new development within zones know as UDAs. For certain high-growth localities, UDAs are mandatory; however they are permissive state-wide. The regulations originally adopted by the Soil and Water Conservation Board allowed a more lenient treatment of phosphorus limitations in UDAs in order to further encourage the use of this device. Striking the more lenient treatment runs contrary to the purposes for which UDAs were created. We recommend allowing local programs to establish a more lenient phosphorus standard within UDAs.	0.41 lb/acre/year standard is protective of water quality statewide. There were concerns that having multiple standards would be unnecessarily confusing.
Randy Williford (Loudoun County)	A. 2. Have design examples been performed to show how these criteria would be implemented on various types of redevelopment projects?	The department has made the new spreadsheet available to the public and staff to evaluate impacts on projects.
Randy Williford (Loudoun County)	A. 2. b. This section requires the implementation of water quality criteria for sites that disturb less than one acre, which contradicts with Section 10.1-603.8.B.4 of the Virginia Stormwater Management Act, which states that land disturbing activities of less than one acre are exempt.	The term regulated has been added to clarify this section.
Randy Williford (Loudoun County); James Patteson (Fairfax County), Keith White (Henrico County)	A. 2. c. The term “new” should be replaced with “net.”	The language has been modified per the comment.
James Patteson (Fairfax County)	A. 2. c. How does one factor in the disturbed area? This could be manipulated regarding which standard applies by how the disturbed area is distributed. This is not practical. The runoff reduction method assigns a phosphorus load to managed turf.	A land disturbing activity is only a portion of the term “site”. In addition to the area of land disturbance, the term “site” has been redefined to mean the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity. Therefore it is appropriate to use your predevelopment and post development land uses to determine the pollutant reduction requirements. This will address managed turf as well as impervious and forest land use.
Dwight Farmer (Hampton Roads PDC)	A. 2. c. Requires that for redevelopment sites where the impervious cover is increased over pre-development conditions, the new development criteria will be applied to the increased impervious area. The rest of the site can be developed using the redevelopment standard. This is going to be very difficult and impractical to implement, and it will be difficult to treat certain portions of a site to a different standard than the rest of the site. We recommend revising this section, so that development on prior developed lands shall reduce the total phosphorus load by 20% from the	We believe that the approach included in the regulations is workable and no changes have been made. After the calculation for the reductions from the portions of the site that are subject to the 20% reduction and to the .41 reductions have been made, a singular BMP may be implemented that meets the required combined load reduction. They do not need to be treated separately.

	predevelopment load regardless of an increase in impervious area.	
Amar Dwarkanath (City of Chesapeake)	A. 2. c. Requires that for redevelopment sites where the impervious cover is increased over pre-development conditions, the new development criteria will be applied to the increased impervious area. The rest of the site can be developed using the redevelopment standard. This is going to be very difficult and impractical to implement. It will be difficult to treat certain portions of a site to a different standard than the rest of the site. We recommend replacing the word "site" with the phrase "area of disturbance" for clarity.	We believe that the approach included in the regulations is workable and no changes have been made. After the calculation for the reductions from the portions of the site that are subject to the 20% reduction and to the .41 reductions have been made, a singular BMP may be implemented that meets the required combined load reduction. They do not need to be treated separately. Additionally, the term "site" has been redefined to mean the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity.
Randy Bartlett (Virginia Municipal Stormwater Association), Maurice Jones (City of Charlottesville)	VAMSA suggests deleting the defined term "site" from subsection A.2.c. and inserting the phrase "area of disturbance" in its place. The revised subsection would read as follows: "c. for land-disturbing activities that result in a new increase in impervious cover over the predevelopment condition, the design criteria for new development shall be applied to the increase impervious area. Depending on the area of disturbance, the criteria of subdivisions a or b above, shall be applied to the remainder of the area of disturbance.	The term "site" has been redefined to mean the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity.
Keith White (Henrico County)	A. 2. c. The word "site" should be replaced with "area of disturbance".	The term "site" has been redefined to mean the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity.
Randy Williford (Loudoun County)	A. 2. d. This Section should be amended to refer to the exemption for linear development projects outlined in Section 10.1-603.8.B.5 of the Virginia Stormwater Management Act, which states that linear development projects that disturb less than one acre of land per outfall or watershed are exempt.	The department does not feel that it is necessary to duplicate state statute in the regulations in this instance. What is in the Code applies to these regulations.
James Patteson (Fairfax County)	A. 2. d. States that "the total phosphorus load of a linear development project occurring on prior developed lands may reduced 20%." We recommend adding to the end of the sentence "….below the predevelopment phosphorus load.	The change has been made.
James Patteson (Fairfax County)	A. 2. d. Uses the term "developed land." This should be defined.	The term used is 'prior developed land" and it is defined in 4 VAC 50-60-10. No changes have been made.
Donald Rissmeyer (Virginia Section American Society of Civil	A. 2. d. The 20% reduction in phosphorus load on linear development projects only applies to land disturbing activities as defined in these regulations, but still seems big. It also only applies to linear development	Should additional clarification of the application of this section be found to be necessary, the department will develop guidance.

Engineers)	projects on prior developed lands, and the regulations should include a statement as to how linear development on "new development" should be handled. The section on linear development in these regulations is only 5 lines later in the regulations and also seems to lack detail. How we address linear development is a huge concern to MS4 communities and others, in general. It will have a huge impact on the success of these stormwater regulations. Further discussion and detail in the regulations seems warranted.	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	A. 2. d. "may" should be replaced with the work "shall".	The department agrees and has made this change.
Lalit Sharma (City of Alexandria)	Criteria for linear development projects are vague and left open to misinterpretation.	The department believes that between its redefinition of the term "site" and its definition of "linear development projects" the application of the criteria is appropriate. The department will consider the development of guidance on the subject should it be determined to be necessary.
Randy Williford (Loudoun County)	C. Clarification is needed regarding how the WLA will be converted to specific water quality criteria, different than the criteria outlined in the regulations, for projects within watersheds subject to TMDL requirements in order for this standard to be implemented. Would this entail a different phosphorus load?	Phosphorus is utilized in this regulation as a keystone pollutant. Where a TMDL has identified a specific pollutant, additional BMPs or reductions may be required specific to that pollutant. VSMP permits cannot be issued unless they are consistent with TMDL WLAs. The department believes that the post-construction criteria are protective of water quality and will not cause or contribute to an impairment. Additionally, if a specific WLA for a pollutant has been established in a TMDL and is assigned to stormwater discharges from a construction activity, operators are required to identify and implement during construction additional control measures in order to ensure that discharges are consistent with the assumptions and requirements of the WLA in a State Water Control Board approved TMDL.
James Patteson (Fairfax County)	C. It is not clear how compliance with WLAs will work in practice with construction sites during construction. What will it mean for operators to "meet the WLA?" Can they do this through implementation of BMPs? The menu of BMPs seems to be applicable to Paragraph A, but not Paragraph C. Does this mean that the locality will have to require the operator to meet the WLA? Who assigns a specific WLA for a pollutant that has been	In development of the SWPPP, operators will need to review TMDLs approved for the receiving waters. The operators will need to develop source controls for implementation during construction that ensures that the discharge is consistent with the assumptions and requirements of the appropriate TMDL WLA. It may be

	established in a TMDL to stormwater discharges from a construction activity? Does the local jurisdiction have the authority to do so?	necessary for the operator to utilize additional controls beyond those found in the erosion and sediment control and stormwater handbook and BMP clearinghouse. The locality is responsible for ensuring that the operator has identified and is implementing the source controls identified in his SWPPP. The WLA is assigned by the TMDL. The local jurisdiction does not have the authority to assign a WLA. The department will be coordinating with DEQ to provide the necessary tools and guidance to address TMDLs.
Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	C. Requires that if a TMDL WLA has been established, control measures must be provided to address this pollutant WLA. The state needs to provide guidance on the performance (removal efficiencies) of BMPs to reduce loads of pollutants other than nutrients and sediment, such as bacteria, if this is going to be a requirement. Otherwise, localities will have no way to properly evaluate this requirement but will be held responsible for addressing the TMDL.	Only those pollutants in a TMDL that would be affected by a construction activity will need to be addressed. Most often these are nutrient and sediment related for which appropriate source controls exist. The department will be coordinating with DEQ to provide the necessary tools and guidance to address TMDLs.
Marc Aveni (Prince William County)	Prince William County does not support applying WLAs during construction. WLAs based on TMDL should be applied to post construction discharges (BMPs) that are approved based on the Virginia SWM regulations as well as TMDL. Applying these during construction is difficult to implement, and poses other hardships.	The regulated activity to which the WLAs apply is the construction activity itself. Under federal regulation WLAs must be addressed during construction. VSMP permits cannot be issued unless they are consistent with TMDL WLAs.
Alice Kelly (City of Norfolk)	To ensure redevelopment is encouraged in already urbanized areas, Norfolk is requesting that the standards for "re-development" be used for sites that have previously included impervious areas within the last 10-years. Under the proposed regulations, if a recently demolished property is seeded and sold as a vacant lot, the buyers will have to develop the site to the new development criteria, even if there is not net increase in impervious area compared to the demolished building. These sites should be allowed a 10-year grace period to fall under the redevelopment criteria instead.	While we recognize the issue being addressed, implementation as requested would be difficult due to lack of records in many situations. Additionally, EPA has provided guidance that predevelopment is defined as the activity immediately prior to the construction activity. No changes have been made.
	4VAC50-60-65 Water quality compliance	
Michael Bumbaco (City of Virginia Beach)	We object in principle to application of the runoff reduction method to the Tidewater area and may be pursuing legislative changes to the Stormwater Management Act to exclude the Virginia lower coastal plain counties from the Act. Our objection is based on the following: The document titled “STORMWATER DESIGN IN THE COASTAL PLAIN OF THE CHESAPEAKE BAY WATERSHED” does not reasonably address	This regulation provides extensive flexibility for operators working with the local governments to achieve the necessary reductions. Further, localities are authorized by the regulations to advance another equivalent methodology that is approved by the board.

	entire watersheds that are fully urbanized in the lower coastal plain. Stormwater control measures that can be installed and maintained at a cost lower than currently installed measures while providing efficient pollutant removal and flood control are not proposed. Several of the low-cost post-construction stormwater control measures (SCMs) listed as preferred or acceptable for the coastal plain end up with poor system performance if not properly maintained and require costly, frequent maintenance to remain effective. If property owners are negligent in maintaining the SCMs, the locality will have to bear the cost, equipment and manpower to recreate the SCMs. Single-cell wet retention basins are the most cost-effective and easiest to maintain flood control measures within Tidewater. They require less land area than constructed wetlands. The low-lying position of our City, coupled with predominantly clay soils, a high ground water table, and frequent tidal flooding, will limit the types of acceptable stormwater control measures, passing the increased costs onto land developers and ultimately our taxpaying citizenry. Most cost estimates to date have indicated that post-construction stormwater control measures installed in accordance with the new regulations will be much more costly to design, construct, and maintain than measures installed under the current regulations. Due to the close proximity of the Tidewater area to the mouth of the Chesapeake Bay, the pollutant impact from Tidewater localities is much less when compared against the cumulative pollutant impact from upriver localities.	
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	CBF supports the requirement to use the newly undated BMPs and applauds DCR for completing this significant and very important upgrade of the state's technical materials.	The department also believes that a suite of BMPs has been provided that are based on the best science available. The department also recognizes that the department will need to be flexible and timely in its review of new BMP options and develop a reasonable process with the BMP Clearinghouse members for making any necessary modifications to the existing BMPs.
Lalit Sharma (City of Alexandria)	The BMP Clearinghouse website is still woefully lacking in information, with many sections labeled "under construction". It would be most beneficial to make informed comments with respect to how this relates to the stormwater regulations during this official comment period, if this site was populated with the proper information. Additionally, Proprietary and Manufactured BMPs are not evaluated on this site.	Information regarding non-proprietary BMPs is available on the BMP Clearinghouse Website. The department also recognizes that the department will need to be flexible and timely in its review of new BMP options and develop a reasonable process with the BMP Clearinghouse members for making any necessary modifications to the existing BMPs. We also agree that

		the department and the BMP Clearinghouse need to have a reasonably timely process in place to conditionally approve manufactured BMP devices reviewed under the TARP protocol.
James Patteson (Fairfax County)	B: Many of the BMPs listed rely heavily on infiltration and as a result the standards will be difficult to meet in areas with poorly drained soils which include most redevelopment areas. The list of BMPs currently on the Virginia BMP Clearinghouse is limited and should be expanded to allow for more tools in the tool box. For example, Fairfax County currently allows perpetually undisturbed open space for BMP credit.	Developers and localities have available to them a suite of BMPs on the BMP Clearinghouse that each have their strengths and weaknesses in different geographic regions. The regulations do allow for filtering practices. The department will also have a flexible and timely process for reviewing new BMP options or for making necessary modifications to existing BMPs to enable them to work better in various geographic regions.
James Patteson (Fairfax County)	It is absolutely critical that the Virginia Stormwater BMP Clearinghouse be able to vet manufactured BMP devices in a timely fashion and at least provide conditional approval of the more commonly used devices that have already been reviewed under the TARP protocol prior the effective date of the regulations. Based on the activities of the Clearinghouse Committee so far, there is no indication that this will happen. Similar to what was the practice for innovative individual sewage treatment systems, the number of systems statewide is proposed to be limited until the initial phase of field testing is completed. This is unworkable and will result in increased pressure on the localities to evaluate and approve such systems for use until the Clearinghouse gives them the OK. Ultimately, the manufacturers will go the legislature to resolve this issue.	We agree that the department and the BMP Clearinghouse need to have a reasonably timely process in place to conditionally approve manufactured BMP devices reviewed under the TARP protocol.
James Patteson (Fairfax County)	The BMPs listed in this are identified by version number and date. Unless you plan on amending the regulations every time there is an update to these standards, which have only recently been posted and have not been fully evaluated by the public, the references to the versions and dates should be removed.	In order for design certainty to be in place for developers and for the enforceability of these designs during inspections, the primary practices that may be utilized to achieve the required technical criteria are set out by version number and date. This is in lieu of the entire Table with efficiencies being located in the regulations and represents a compromise in that regard. The detailed specifications for these BMPS have been posted to the BMP Clearinghouse for several years now and have only had minor improvements made to them since. A process has been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. We think that this approach adds both certainty and flexibility.

Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Versions and dates of BMP types should be removed since they are subject to change. Maybe refer to the "latest" version in these regulations.	In order for design certainty to be in place for developers and for the enforceability of these designs during inspections, the primary practices that may be utilized to achieve the required technical criteria are set out by version number and date. This is in lieu of the entire Table with efficiencies being located in the regulations and represents a compromise in that regard. The detailed specifications for these BMPs have been posted to the BMP Clearinghouse. However, in accordance with the regulations, a process has been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. The process also allows for other new BMP technology to be added and utilized. We think that this approach adds both certainty and flexibility. No changes to the regulations have been made.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Has the role for the BMP clearinghouse been defined adequately in the regulations?	The department believes that the language included is appropriate and alludes to procedures that will be established by the BMP Clearinghouse and approved by the board regarding the review and approval of BMPs.
Dwight Farmer (Hampton Roads PDC)	DCR should establish a formal review process for the BMP specifications and outline a process for revising BMP specifications and reopening the Stormwater Regulations when necessary.	The department recognizes it will need to have a flexible and timely process for reviewing new BMP options or for making necessary modifications.
Virginia R. Rockwell	The language summarizing the practices with the strikethroughs must be reinstated, AND the practices themselves either appended to the regulations and/or otherwise made available to the public.	The Table with the efficiencies is not necessary as the BMP standards and specifications can be readily found on the BMP Clearinghouse website.
James Patteson (Fairfax County)	Reported BMP efficiencies differ between current practices, the BMP clearinghouse, and Chesapeake Bay. Develop a consistent approach based on best available technology and data. Consistent BMP efficiencies are needed to help localities, particularly those subject to MS4 requirements and the Chesapeake Bay TMDL, track credits for load calculations and reductions.	The efficiencies on the BMP Clearinghouse represent our best science based estimates for the specific BMP designs noted. These are the most appropriate efficiencies to be utilized by Virginia when addressing the technical criteria in order to protect water quality. However, we do recognize that BMPs reported to the EPA may be subject to different efficiencies for the calculation of progress towards the Chesapeake Bay TMDL. We will continue to speak with EPA on this crediting issue.
Randy Williford (Loudoun County)	B. Eliminate the references to the individual Best Management Practices (BMPs) in favor of a single reference to the BMP Clearinghouse, which can be amended without legislative action.	In order for design certainty to be in place for developers and for the enforceability of these designs during inspections, the primary practices that may be utilized to

		achieve the required technical criteria are set out by version number and date. This is in lieu of the entire Table with efficiencies being located in the regulations and represents a compromise in that regard. As noted, the detailed specifications for these BMPS have been posted to the BMP Clearinghouse. A process has been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. We think that this approach adds both certainty and flexibility.
Amar Dwarkanath (City of Chesapeake)	C. Does DCR intend to have a process in place to update the BMP Clearinghouse without reopening the VSMP Regulations? If so, it should be clearly stated within this section. It could be problematic to reference a March 2011 version of the clearinghouse website in a regulation which will not become fully effective until July 2014.	The department recognizes it will need to have a flexible and timely process for reviewing new BMP options or for making necessary modifications.
Richard Street (Spotsylvania County)	C. is not flexible. Localities need to have the ability to produce innovative practices and provide a list for approval once or twice a year. If every new product or landscape design has to be reviewed by the clearing house or director then development will be held up and homeowners will have projects delayed.	The department recognizes it will need to have a flexible and timely process for reviewing new BMP options or for making necessary modifications.
James Patteson (Fairfax County)	D. We recommend clarifying if the department needs to approve the proposed limitation or if the written request just needs to be submitted. The wording implies that submission of the request by the local stormwater program is all that is needed. Can the BMP limitations be established as part of the initial review on the program, so that no application is required?	Per the regulations, the written request just needs to be submitted. However, as suggested, most of the BMP limitations will likely be identified during the initial program approval process.
Steven Herzog (Hanover County)	D. In addition to a process for incorporating new BMP's, flexibility is needed to approve minor changes to the design requirements for approved BMP's. We would suggest adding the following language to this section to provide for this. "Local stormwater management programs can approve minor modifications to the specific design standards of the BMP's listed above or listed on the BMP clearinghouse. Minor modifications can be approved when required to enable a BMP's installation to be tailored to the specific requirements of the site on which the BMP is to be installed."	The department recognizes it will need to have a flexible and timely process for reviewing new BMP options or for making necessary modifications. However such process to be consistent for the developers and enforceable must be standardized and the approval process controlled.
Randy Williford (Loudoun County)	E. Delete the second sentence of this section. This sentence is not consistent with guidance currently provided on "applicable area" in the Virginia Stormwater Management Handbook and Technical Bulletin #4. As indicated in the first sentence, the local program authority must be able to evaluate the size of the area utilized in water quality calculations in order to prevent larger areas from being used to dilute pollutant discharge rates and	With the modification that was made to the term “site”, the department believes that this issue has been addressed. Accordingly, the department has also stricken all of subsection E as it no longer applies. We will be developing guidance to provide additional clarity to this issue if necessary.

	adversely affect water quality. An important step in this evaluation is to determine if the site area requiring treatment (impervious areas plus lawns) is connected or disconnected. If this area only constitutes a portion of the site and is connected (discharging to a single receiving channel), only the drainage area being collected by the improved drainage system should be included in the applicable area. Only natural areas located within this improved drainage system should be included in the applicable area, as opposed to natural areas located across the entire site. It is only appropriate to include natural areas across the entire site in the applicable area in cases where the area requiring treatment is also disconnected across the entire site. Should the second sentence or its intent remain, add language to require that any, random undeveloped area within a site that is included in the water quality analysis shall be placed within a conservation easement in perpetuity so that it is not subject to future development and specify that these natural areas cannot be utilized for additional credit in future phases of a project.	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	E. Why is the portion to include the undeveloped land? Does this mean the land is not supposed to be developed?	With the modification that was made to the term "site", the department believes that this issue has been addressed. Accordingly, the department has also stricken all of subsection E as it no longer applies. We will be developing guidance to provide additional clarity to this issue if necessary.
James Patteson (Fairfax County)	F. It will be difficult to develop independent stormwater drainage designs if a site drains to two HUC's.	We recognize that in the limited situations where this may occur, that site designs may be more challenging.
Richard Street (Spotsylvania County)	F. Which HUC code? Subwatershed or watershed? Makes more sense for subwatershed because MS4 permits and WIP programs use subwatersheds. Clarify please?	A definition of "hydrologic unit code" or "HUC" is in the definition's section and refers to a watershed unit established in the most recent version of Virginia's 6th Order National Watershed Boundary Dataset.
	4VAC50-60-66 Water quantity	
Michael Toalson (Home Builders Association of Virginia)	HBAV supports the proposed revisions to the water quantity standards in the proposed Regulations. These revisions have been developed by the best stormwater management professionals in the Commonwealth and will foster significant improvements in the water quality of the Chesapeake Bay by reducing and/or preventing stream erosion.	The department appreciates the support for this Part of the regulations.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	It is unclear what the channel protection regulations for grandfathered projects will be. Under Part II C, Section K, it states "Natural channel characteristics shall be preserved to the maximum extent practicable." This appears to be the only reference to limiting peak flows and volume for the 1 or 2 year storm for grandfathered projects. If this is the case, I recommend revisiting this section to adopt specific standards, or to leave them as they	The channel protection requirements for grandfathered projects are defined in 4VAC50-60-97 of the regulations.

	currently stand (old standard).	
James Patteson (Fairfax County)	Criteria, which is based on predevelopment condition and improvement factor, is inconsistent with Virginia State Code §10.1-561, first paragraph, regarding the satisfaction of volume and velocity calculations.	The regulations establish the minimum statewide standards for channel protection related to peak flow rate and volume. The law, §10.1-561, provides an alternative to those standards.
Keith White (Henrico County)	Add a subsection to this section to address redevelopment of a site that is currently served by practices that were installed to address the channel and flood protection requirements of this section. This would be similar to the existing stormwater quality provision Situation Four (discussed previously) and is needed to eliminate the need to do repeated reductions in the predeveloped energy. This issue was discussed briefly during the last quantity workgroup meeting. We suggest language something like the following (which basically eliminates the improvement factor): Stormwater discharges from a development that currently incorporates measures that satisfy the requirements of 3.a above must provide for a maximum peak flow rate from the one-year 24 hour storm that, following the land disturbing activity, i. is calculated in accordance with the following methodology $Q_{Developed} \leq Q_{Pre\text{-}Developed} * RV_{Pre\text{-}Developed}] / RV_{Developed}$; Under no condition shall $Q_{Developed}$ be greater than $Q_{Pre\text{-}Developed}$ where $Q_{Developed}$ = The allowable peak flow rate of runoff from the developed site, $Q_{Pre\text{-}developed}$ = The peak flow rate of runoff from the site in the pre-developed condition, $RV_{Pre\text{-}developed}$ = The volume of runoff from the site in the pre-developed condition, $RV_{Developed}$ = The volume of runoff from the site in the developed condition,	These regulations address these concerns through the use of offsets and off-site options in 4VAC50-60-69. The department believes the existing language is appropriate and will develop guidance to assist with implementation.
John Salm, III (J.W. Salm Engineering, Inc.)	The SCS method (TR-55) should be used for water quantity calculations, especially for sites greater than 20 acres. Rational method could still be used for linear projects or for pipe sizing calculations for roadways.	This comment is more relevant to 4VAC50-60-72 and is discussed there. The relevant language is permissive and it is up to the individual local programs to develop the requirements. The handbook is being revised to coordinate with that new language.
Randy Williford (Loudoun County)	The original definition of "adequate channel" is removed in the definitions section of the regulation. Language depicting three types of conveyance systems, “manmade,” “restored,” and “natural” is subsequently included in	The situation you described is not allowed in the regulations. Concentrated stormwater flow must be released to a conveyance system to the limit of analysis

	lines 1153, 1164, and 1173, respectively, under 4VAC50-60-66. Add language to 4VAC50-60-66 to indicate that all open conveyance channels receiving concentrated stormwater flow must possess a defined cross-sectional flow area. When newly concentrated flow is directed to an offsite property without a well-defined receiving channel, meandering flow and continuous ground saturation can damage properties and adversely affect agricultural production. This can occur even with minimal increases in volume.	for channel and flood protection criteria.
Randy Bartlett (Virginia Municipal Stormwater Association), Maurice Jones (City of Charlottesville)	Compliance with the standards set forth in this section will be deemed to satisfy the requirements of Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations. VAMSA is pleased that the revised regulations include this express statement and the regulatory certainty it provides. VAMSA supports this important linkage between stormwater management and sediment control.	Support for this measure is appreciated as the Department continues to work towards better integration of stormwater management and erosion and sediment control.
James Patteson (Fairfax County)	B. “Concentrated stormwater flow” should be defined in the regulations.	The department does not believe that a definition for this is necessary.
Randy Williford (Loudoun County)	B. 2. Eliminate this section due to the fact that most of these systems are restored by mitigation bankers who are not required to submit plans reflecting restored channel designs for local review (they file annual specifications with the Virginia Department of Conservation and Recreation), such that the locality (and the state) will not have access to the design limitations of these channels in order to conduct the subsequent development reviews. These systems should be subject to the channel protection criteria established for natural stormwater conveyance systems or a separate standard should be specified, applicable to all restored channels.	It is the department’s belief that if there are channel design plans then the developer should have the option of using them to meet the channel protection requirements. This will require coordination between the state and locality when such plans have been approved by the state. If plans are not available they do need to meet the natural stormwater conveyance system requirements.
David Nunnally (Caroline County)	C. Include ‘runoff reduction measures and practices’.	The department is unclear as to what is being requested.
Marc Aveni (Prince William County)	The County supports the proposed flexibility for the release of storm water into natural and manmade conveyance systems with alternatives based on the methodology approved by the Soil & Water Conservation Board. With this flexibility, the localities can derive cost effective solutions to achieve equivalent results.	The department appreciates the support for this section of the regulations.
Marc Aveni (Prince William County)	The proposed regulatory language to establish the limit of analysis for the 1- and 10-year storms is not clear – (Based on peak flow rate, the site's peak flow rate from the one-year 24-hour storm is less than or equal to 1.0% of the existing peak flow rate from the one-year 24-hour storm prior to the implementation of any stormwater quantity control measures). Please reword to clarify the regulation.	The department believes that the language is clear but understands that guidance with examples may be helpful as we work on program implementation.
Amar Dwarkanath (City of	B. 3. Currently Chesapeake uses 2, 10, and 50 year design storms in our	The department believes that the use of the 1 year 24-

Chesapeake)	Public Facilities Manual. The introduction of a 1 year 24 hour design requirement adds confusion. We request that the 2 year design storm continue to be used rather than the 1 year storm. We also request that the improvement factor (I.F.) be removed from the peak flow rate calculation for natural stormwater conveyance systems as this is not technically feasible in the Coastal Plain.	hour storm clarifies the limits of analysis for channel protection. We understand your concern about the IF factor but the department believes that the regulations can be met in the coastal plain.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	B. 3. I suggest adding the language in the brackets below: "When stormwater from a development is discharged to a natural stormwater conveyance system, the maximum peak flow rate from the one-year 24-hour storm following the land-disturbing activity shall be calculated [and be designed to be in accordance with] either…."	The department believes the wording of B.3. is clear and reflects consensus reached by the Regulatory Advisory Panel.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	B. 3. a. "Under no condition shall….nor shall $Q_{developed}$ be required to be less than that calculated in the equation…" What is the purpose of this statement? This may have unintended consequences and is better handled in the BMP Handbook. Recommend removing this statement.	The department believes the wording provides clarity in addressing $Q_{developed}$ for the land disturbing activity as $Q_{developed}$ will never be required to be less than the forested condition.
James Patteson (Fairfax County)	B. 4. "Site's contributing drainage area" – shouldn't this be limited to the disturbed area and not the entire site?	With the change in the definition of "site" we have addressed this comment.
Daniel Proctor (Williamsburg Environmental Group)	I do not think the Improvement Factor (IF) incorporated into the channel protection equation (energy balance equation) should be included. Merely replicating the existing product of peak flow and runoff volume would be sufficient to ensure the project development is not creating a worse problem downstream. During the RAP subcommittee meetings, the argument presented by fellow members and DCR staff for the need of an IF was that statutory law required that stormwater management improve on existing conditions… not merely make sure development doesn't make things worse. However, the reasoning for the water quality target presented at later RAP meetings is contrary to this mindset (i.e. reviewing land conversion trends to make sure new development does not result in a greater nutrient load than prior to development, or using the CWP impervious cover model to set an acceptable threshold per receiving channel health regardless of what the existing site conditions may be). If the water quality load used this mindset… development on previously wooded sites would not only have to get P-loads much lower than the 0.41 target, but even lower than the load associated with forested areas (practically nil). Furthermore, when I looked back over statutory law, an improvement is only mandated when stream channel erosion or localized flooding is present (see language from the Code of Virginia below). However, the regulations require the IF for all sites regardless of whether existing	This issue was discussed at the RAP and consensus was reached that the IF was necessary for the continued protection and enhancement of Virginia's waters. Additionally, the regulations allow for alternative methodologies that achieve equivalent results.

	problems are present. § 10.1-603.4.7 - [The regulations shall:] Require that stormwater management programs maintain after-development runoff rate of flow and characteristics that replicate, as nearly as practicable, the existing predevelopment runoff characteristics and site hydrology, or improve upon the contributing share of the existing predevelopment runoff characteristics and site hydrology if stream channel erosion or localized flooding is an existing predevelopment condition. I would recommend a clause that allows someone to evaluate the downstream receiving channel in lieu of other compliance options. I feel like compliance should be considered if an analysis can be provided to the review authority that demonstrates that the downstream receiving channel (but not extending the analysis any further than the point of the 1% rule… since not necessary beyond that point per other sections) does not currently and will not have erosion problems… and thus preclude the need to provide the energy balance with IF. Not require this for all options, but open the door to perform the additional analysis if desired; similar to the clause included in the flood control section about evaluating the presence of localized flooding. Alternately, if the regulatory language isn't modified, I would recommend a guidance document to be developed by DCR highlighting this issue and what policy decisions are intended for such situations. I think this could be especially problematic for linear projects that do not comply with the pre-conditions needed to be exempt.	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	C. As currently stated in the regulations, it appears that the 10-yr 24-hour post-development peak flow rate must be limited to the 10-yr 24-hour pre-development peak flow only if there is currently flooding downstream. If downstream properties are not experiencing flooding, maintenance of the post-development peak is not required. The only requirement in that case would be to ensure that the system can convey and contain the flow (capacity). This may be problematic as one the additional flows from new development sites come on line over time in urbanizing communities, downstream communities may begin to experience flooding problems, only after development has been completed and the stormwater systems have been built. This seems short-sighted, reduces the current standard, and defers the problem it creates onto others. Recommend limiting the 10-yr 24-hour post-development peak flow rate and volume to the 10-year 24-	Stormwater conveyance systems that currently do not experience localized flooding are protected and remain protected as new developments come on line, as C.1. must be met by all present and future land disturbing activities. The department believes that the proposed condition meets the consensus developed by the regulatory advisory panel.

	hour pre-development peak and volume in all cases. In addition, C. 4. which was repealed, should be restored which will alleviate conditions in areas that are already experiencing flooding.	
James Patteson (Fairfax County)	C. 2. Using the 10-year 24-hour storm as the standard to evaluate localized flooding lacks technical justification. Natural streams generally have capacity for the 1.5 to 2-year storm. Providing detention for the 10-year storm will not do anything in and of itself to maintain the number of out of bank flows at current levels.	This issue was discussed at the subcommittee and RAP and consensus was reached that these standards were necessary for the continued protection and enhancement of Virginia's waters.
Randy Williford (Loudoun County)	C. 2. b. Establish a specified reduction in flow below the pre-development rate if an existing stormwater conveyance system is already flooding during the 10-year event (e.g., 10 percent).	A specific reduction for flood reduction was discussed during the subcommittee and consensus was reached that these standards were necessary for the continued protection and enhancement of Virginia's waters.
James Patteson (Fairfax County)	C. 3. It's confusing for the limit of the extent of downstream review to be different for channel protection and flood control.	The sections are very similar. Flood protection allows for one additional option.
Randy Williford (Loudoun County)	C. 3. c. Modify the text to read "The stormwater conveyance system enters ~~a~~ the channel of a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality." Ending the analysis prior to the channel does not acknowledge the negative erosion impacts associated with discharging concentrated flow in the flatter portions of the floodplain.	This issue was discussed by the RAP and consensus was reached that this language is appropriate.
James Patteson (Fairfax County)	C. 3. c. Although floodplains may be defined by ordinances (e.g. streams with drainage areas > 100 acres), many floodplains are not "adopted by ordinance" which connotes that the specific floodplain was adopted by the local legislative body. Was this intended to mean only those floodplains directly adopted by ordinance such as FEMA floodplains? Also, the floodplain definition could be more restrictive in some localities than others and it would be best for the minimum requirement to be uniform across the state. In addition, allowing one to terminate the analysis when stormwater reaches a mapped floodplain or a flood-prone is problematic. There may be localized flooding issues from the 10-year storm within the mapped floodplain or flood-prone area.	It was the RAP's intention to limit this subsection to floodplains directly adopted by ordinance and to be uniform in its application.
John Salm, III (J.W. Salm Engineering, Inc.)	Question the value "1.0%", one-percent?	The one percent rule was developed in the 1980's and its use is being continued in these regulations.
Marc Aveni (Prince William County)	Prince William County supports the proposed regulatory-intent to address the adverse impacts of increased volumes of sheet flow resulting from pervious or disconnected impervious areas for potential impacts on down-gradient properties or resources. However, the State should develop specific regulations to address adverse impacts of excessive sheet flow.	As may be determined to be necessary, the department will develop guidance to address any issues related to sheet flow.
James Patteson (Fairfax County)	D. Identification and evaluation of sheet flow for potential impact on down-gradient properties is good. We recommend clarifying methods and limits of analysis.	As may be determined to be necessary, the department will develop guidance to address any issues related to sheet flow.

Randy Williford (Loudoun County)	Provide or reference the technical criteria for evaluating the impacts of sheet flow.	As may be determined to be necessary, the department will develop guidance to address any issues related to sheet flow.
John Salm, III (J.W. Salm Engineering, Inc.)	E. Crop land should be considered "with conservation measures". Also see 4VAC50-60-95 C.	The changes made in 4VAC50-60-66 E address this issue as conservation measures result in good hydrologic condition.
Alice Kelly (City of Norfolk)	It is impractical for sites in the coastal plain communities to detain stormwater to reduce the peak flow rate for the 10-year 24-hour storm so that it is less than the predevelopment peak flow rate.	The department believes that the regulations can be met in the coastal plain.
Dwight Farmer (Hampton Roads PDC)	In Water Quantity Subsection E, eliminate "from prior development lands", so sentence reads "For purposes of computing predevelopment runoff, all pervious lands on the site shall be assumed to be in good hydrologic condition…"	This change has been made as it should apply to all lands.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	F. What should be the assumption for areas where the land has been previously developed (such as infill areas where buildings were raised)?	Soils in areas where the buildings have been raised should be considered compacted and calculations should be based on an impervious condition. Impervious areas in previously developed sites would remain as impervious. If appropriate measures are implemented to reduce compaction and impervious area and proper documentation is provided to the plan reviewing authority, the condition of the raised area soils and imperviousness may be modified at the discretion of the plan reviewing authority.
	4VAC50-60-69 Offsite compliance options	
Michael Toalson (Home Builders Association of Virginia)	HBAV particularly supports the availability, although currently limited, of the off-site compliance options in the proposed revisions to Part II. HBAV believes the further development of off-site compliance options, along with an affordable and efficient off-site nutrient trading exchange system, will be absolutely critical to the universally desired goal of redevelopment of the older sities and older suburbs, where significant untreated existing impervious surfaces exist. HBAV urges, however, that the 75% on-site phosphorus nutrient compliance requirement to utilize the off-site option be reviewed in the very near future, especially with regard to redevelopment projects.	The department appreciates the support for this section of the regulations.
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	CBF fully supports the new provisions passed by the 2011 General Assembly and incorporated into these regulations that require offsite pollution reductions to be in place prior to initiation of the land-disturbing activity.	The department concurs that the 2011 legislation should provide additional certainty to the offset/ offsite process and result in the necessary water quality protections.
Mike Gerel and Margaret Sanner (Chesapeake Bay	CBF believes that priority should be given to offsite compliance options that are located within the same 12-digit HUC or upstream 12-digit HUC as the	While this proposal may result in improvements in the protection of local water quality, the department does

Foundation)	associated land disturbing activity. If offsite compliance options are not available in the 12-digit HUC, then options in the larger 8-digit HUC watershed would be allowed. As the predictive capacity of the ICM approach that underlies the proposed water quality criterion for new development is limited to subwatersheds from 5 to 50 km2, it is appropriate to prioritize reductions that are within the local 12-digit HUC subwatersheds where the land-disturbance will take place. Further, offsite projects designed to generate nutrient reductions can also decrease bacteria and other pollutants, attenuate flow rate and volume, create habitat, and deliver other attendant beneficial uses. Since these same benefits are lost to the receiving stream when reductions are moved offsite, it is appropriate to prioritize establishing offsite options in the subwatershed.	not feel that it has sufficient latitude within the law to provide for additional restrictions regarding the geographical application of offsite/ offset compliance options.
Marc Aveni (Prince William County)	The State should retain this authority with the locality for developing the guidelines for offsite SWM provisions more stringent than the state, rather than restricting the authority of the locality. In other words, the locality should not be compelled to allow this provision outside of its jurisdiction. Allowing offsite SWM anywhere within the HUC protects the larger watershed while sacrificing the protection of local streams and their tributaries. The County agrees with the broader guideline that the offsite facility shall be located within the HUC, and not the more specific guideline that offsite facility shall be allowed anywhere as long as the offsite facility is located within the HUC boundaries.	The department does not feel that it has sufficient latitude within the law to provide for additional restrictions regarding the geographical application of offsite/ offset compliance options.
Marc Aveni (Prince William County)	Prince William County supports the nutrient offsets, only if there is <u>full local control</u> on when the offset provision is granted, and where the offset can be purchased, etc. In other words, the County should retain its authority in granting the offset as an alternative based on its own evaluation criteria, and the County should be empowered to requiring the offset within the County to protect its own streams locally. The County may not want to support a position for a fee in-lieu of offset option, particularly, when the monies are deposited in a central trust. We have concerns on offsets working as wetlands mitigation banks. If these work as mitigation banks, the County may not be in a competitive position in keeping the nutrient offsets within the County.	The department does not feel that it has sufficient latitude within the law to provide for additional restrictions regarding the geographical application of offsite/ offset compliance options.
Marc Aveni (Prince William County)	The proposed language on offsite SWM is too specific and lowers the locality's direct authority to regulate offsite SWM provision based on its best interest to protect its local streams and tributaries: "When an operator has additional properties available within the same HUC or upstream HUC that the land-disturbing activity directly discharges to or within the same watershed as determined by the stormwater program	The department does not feel that it has sufficient latitude within the law to provide for additional restrictions regarding the geographical application of offsite/ offset compliance options.

	administrative authority, offsite stormwater management facilities on those properties may be utilized to meet the required phosphorus nutrient reductions from the land disturbing activity" "Operators shall be allowed to utilize offsite options identified in subsection A under any of the following conditions: 1. Less than five acres of land will be disturbed; 2. The postconstruction phosphorus control requirements is less than 10 pounds per year.	
James Patteson (Fairfax County)	A. The original language in paragraph 4 needs to be reinstated. What we have left is the state controlling all offsite options and developers of adjoining properties being prevented from installing larger more efficient facilities on the lower properties to collect, treat, and detain stormwater. This is counterproductive.	This option was retained in this version of the regulations. As such, no changes were necessary.
Randy Williford (Loudoun County)	A. 4. Clarify the applicable state agency and state board referenced in this section and the types of offsite options envisioned.	The department wants to remain broad in this regard as alternatives are being developed and the Nutrient Credit Exchange is being expanded.
Randy Williford (Loudoun County)	A. 5. Identify the statutory authority that authorizes this section.	The statutory authority has been added to this subsection.
James Patteson (Fairfax County)	A. 5. Allows offsite compliance to occur on properties within the same HUC or upstream HUC that the land-disturbing activity directly discharges to or within the same watershed as determined by the stormwater program administrative authority. The locality should have the authority to restrict the location of offsite controls to areas much smaller than a HUC, where possible. It is understood that the nonpoint nutrient offset program established pursuant to §10.1-603,8:1 of the Code of Virginia has different limitations (8 digit HUC and ultimately tributary), but it should be left to the locality to determine how far "offsite" the remaining offsite compliance options are allowed.	The department does not feel that it has sufficient latitude within the law to provide for additional restrictions regarding the geographical application of offsite/ offset compliance options.
Jeff Harn (City of Arlington)	We are not in favor of the provision providing operators with the sole discretion of using offsite options for compliance when land disturbance is less than five acres. We do, however, support the provisions requiring offsets within the same 6th Order Hydrologic Unit Code and requiring that the necessary nutrient reductions must be achieved prior to the start of land disturbing activity. We also support the provisions prohibiting offsets in conflict with local impaired water requirements or the requirements of approved MS4 permits program plans.	While this proposal may result in improvements in the protection of local water quality, the department does not feel that it has sufficient latitude within the law to modify the restrictions included in this law.
Randy Williford (Loudoun County)	B. General Comment: These standards will allow a significant portion of the water quality criteria associated with many local development projects (a significant portion of our land development applications involve projects	The department does not feel that it has sufficient latitude within the law to modify the restrictions included in this law.

	with less than 5 acres of disturbance and post-development pollutant loads less than 10 lbs/acre/year of phosphorus) to be achieved outside of the watershed subject to the increased pollutant load, and outside of the locality administering the criteria. This standard creates onerous pollutant tracking problems at the local level and presents the potential for a net increase in pollutant loads within some localities and a net reduction in pollutant loads in others (similar to the trends observed with wetland impacts and mitigation). It also has the potential to exacerbate local water quality impairments over time and lead to new impairments that would subsequently have to be addressed by the locality through the implementation of a TMDL.	
Lalit Sharma (City of Alexandria)	B. Should be at the jurisdictions choice.	These "safe-harbors" area result of legislation passed during the 2011 General Assembly Session and the department does not have discretion to alter them.
James Patteson (Fairfax County)	B. Condition 2 can result in a site that can be greater than 5 acres (Condition 1). Many site developments in urbanized areas are less than 5 acres and/or will meet the 10 pound criteria. This could potentially cause a lot of trading in these areas.	We understand the issue being raised but we do not feel that we have sufficient latitude within the law to modify the restrictions included in this law
James Patteson (Fairfax County)	B. There needs to be an option for developers of adjoining properties to be able to install larger more efficient facilities on the lower properties to collect, treat, and detain stormwater. Again, prohibiting this is counterproductive.	This option was retained in this version of the regulations. As such, no changes were necessary.
Randy Williford (Loudoun County)	C. 2. Clarify the reference to "subsection B of §62.1-44.19:7." Is the use of offsite options prohibited on development sites that discharge to impaired streams?	As noted, the law specifies that "[n]o permit issuing authority shall allow the use of nonpoint nutrient offsets or other off-site options in contravention of local water quality-based limitations: (i) consistent with determinations made pursuant to subsection B of § 62.1-44.19:7,…". There will need to be a site by site analysis as to whether offsite compliance options may be considered. Additional alternatives may also be available when the Nutrient Credit Exchange has been expanded.
Lalit Sharma (City of Alexandria)	C. 2. Is unclear. More explanation is required.	As may be determined to be necessary, the department will develop guidance to address any issues related to offsite compliance options.
Lalit Sharma (City of Alexandria)	D. States that offsite options 1 and 2 of subsection A may be used to "meet requirements of 4VAC50-60-66", but this is the Water Quantity portion. Please revise if this is -65, as this is the section that deals with "phosphorus and nutrients". But if this is not an error, we do not support Offsets for Water Quantity criteria.	The language in this section is correct, it does apply to water quantity, and it has not been changed.

Alice Kelly (City of Norfolk)	It is our strong preference that offsite options be required to remain within the same locality as the development site and for the locality to approve such options at their discretion. Additionally, localities should be given the discretion to determine the percentage of stormwater treatment conducted on-site versus off-site.	The department does not feel that it has sufficient latitude within the law to modify the restrictions included in this law.
	4VAC50-60-72 Design storms and hydrologic methods	
Greg Johnson (Patton Harris Rust & Associates)	We do not want to reward a developer for denuding an area and wiping out the real existing condition of a parcel. A changed condition can be documented by using aerial photographic information, which is abundant. We must remember that forested areas are extremely valuable and better development techniques have to be used to marry the development to the real existing condition. As such, after "…project will be addressed." insert the following language: "However, if within the project limits there has been a tree harvest within 5 years of the project's submittal for review, the existing condition shall include the harvested area as forested in good condition."	While we recognize the issue being addressed, implementation as requested would be difficult due to lack of records in many situations. Additionally, EPA has provided guidance that predevelopment is defined as the activity immediately prior to the construction activity. No changes have been made. Additionally, if you harvested timber as part of a development and not a silvicultural activity, that is considered part of a construction activity and requires a VSMP permit.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	A. the reference to NOAA Atlas 14 might also include a reference to the Precipitation Frequency Data Server which is maintained by NOAA online. It is the best source of current rainfall information currently.	The department believes the reference to the NOAA Atlas 14 is sufficient for the purposes of this regulation and further specificity for rainfall data is not required to implement the regulations. However, it should be noted that the section does allow for the use of other hydrologic and hydraulic methods.
Dwight Farmer (Hampton Roads PDC)	B. Rewrite the sentence to read "Unless otherwise specified, all hydrologic analyses shall be based on watershed characteristics that reflect good hydrologic condition for current conditions and the expected hydrologic condition for the ultimate development condition."	This change is not needed as the good hydrologic condition was established in 4VAC50-60-66 E.
Greg Johnson (Patton Harris Rust & Associates)	The existing Virginia Stormwater Management Handbook in Chapter 5 limits the Rational Formula use to areas less that 25 acres and notes the volumes computed with the Rational Formula "may underestimate the required storage volume for any given storm event." This change brings the Rational Formula more into conformance with known limits of the Rational Formula. Granted the SCS Methods are more complex but, in today's computerized world the actual calculations are seamless. As such, subsection D should be modified to read: "Rational Method for evaluating peak discharges areas of 20 acres or less or the Modified Rational Method for evaluating volumetric flows to stormwater conveyances with drainage areas or 10 acres."	The existing language is permissive and it is up to the individual local programs to develop the requirements. The 200 acres may be appropriate for certain projects including those that are linear. The handbook is being revised to coordinate with this new language.
Dwight Farmer (Hampton Roads PDC)	The Modified Rational Method has been found to significantly underestimate the volume of stormwater runoff and should not be used to design stormwater treatment facilities draining up to 200 acres. Subsection	The existing language is permissive and it is up to the individual local programs to develop the requirements. The handbook is being revised to coordinate with this

	D should be edited to read. “Except for linear development projects, the Modified Rational Method should be limited to 20 acres of drainage area or less; not 200 acres or less.”	new language.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Some are starting to limit the use of the rational equation to 100 acres, or less, and the use of 200 acres might be worth reconsidering to a smaller watershed.	The existing language is permissive and it is up to the individual local programs to develop the requirements. The 200 acres may be appropriate for certain projects including those that are linear. The handbook is being revised to coordinate with this new language.
James Patteson (Fairfax County)	C. VDOT and NRCS have recognized an issue with using the current 24-hour rainfall distributions in TR-55 and TR-20 which needs to be addressed in these regulations. NOAA Atlas 14 data does not fit the TP-40 storm distributions (Type 1, Type II, Type II, etc) for all return periods, therefore, each data location now has a unique rainfall distribution for each frequency (1-year to 500-year). County division and large independent cities are the basis for selecting areas that represent rainfall magnitude and distribution zones.	The section allows for the use of other hydrologic and hydraulic methods.
John Salm, III (J.W. Salm Engineering, Inc.)	D. Rational method should not be used for large sites with the exception of linear (highway) projects.	The existing language is permissive and it is up to the individual local programs to develop the requirements. The handbook is being revised to coordinate with this new language.
Jeff Harn (City of Arlington)	We are not in favor of specifying 24-hour duration storm events nor the use of the NRCS rainfall distributions, as local experience suggests the NRCS rainfall distribution applied to 24-hour rainfall volumes produces extreme results in smaller watersheds. We do support the provision allowing “other standard hydrologic and hydraulic methods” and request that DCR allow local discretion in specifying alternative methods to the NRCS rainfall duration and distribution methodologies.	The department believes that the regulations provide the necessary flexibility for localities to specify alternative methods in their programs.
	4VAC50-60-74 Stormwater harvesting	
Lalit Sharma (City of Alexandria)	This should be considered as an option for achieving water quality and quantity criteria. It is being encouraged without specific benefit to the project. We support stormwater harvesting in that this is a proven method to mitigate water quality and quantity concerns. We also suggest that this be provided as a BMP in the Clearinghouse so that it is fully supported and projects are encouraged through receiving a benefit.	The department also continues to support the use of stormwater harvesting but does not have the authority to do more than encourage its use. The stormwater management law specifies that the regulations shall “[p]romote the reclamation and reuse of stormwater for uses other than potable water in order to protect state waters and the public health and to minimize the direct discharge of pollutants into state waters”.
Marc Aveni (Prince William County)	There are no BMP credit incentives to promote storm water harvesting. BMP credits should be offered to promote stormwater harvesting.	The suite of BMPs available on the BMP Clearinghouse does include BMPs providing credits for rainwater harvesting.
	4VAC50-60-85 Stormwater management impoundment structures or	

	facilities	
Richard Street (Spotsylvania County)	How do we handle pre-existing farm ponds that were kept when the site was developed? Many do not have BMP agreements and do not get regular inspections.	Localities should strive to conduct inspections of all known BMPs, however, we recognize that without maintenance agreements or other legal instruments accessing these prior sites will be difficult.
	Part II C	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Part II C appears to create a second set of stormwater regulations for grandfathered projects, thereby setting one of standards until 2019 for grandfathered permits and projects in 4 pages of text, and leaving a second set of standards for projects after 2019, and that are not grandfathered. Setting standards for projects with 4 pages of text should be considered carefully. It should allow local jurisdictions to adopt new regulations, which the majority of the text addresses, earlier. It should reference the new stormwater BMP Handbook and BMP Clearinghouse.	The language in the Part is reflective of the language that governs projects today. It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards. It should also be noted that 4VAC50-60-96 C does contain references to the new BMP Clearinghouse Website and authorizes that those BMPs may also be utilized for compliance purposes.
	4VAC50-60-92 Comprehensive stormwater management plans	
David Nunnally (Caroline County)	DCR approval of comprehensive stormwater management plans is unduly burdensome and should be deleted in this context. The text seems to refer to any regional, watershed, or shared system of BMP(s) that provide the required environmental protection. Why is DCR approval required (other than the initial local program approval that every program must obtain)? So-called comprehensive SWM plans must achieve the same level of performance and environmental protection as that of the more traditional piecemeal approach. The VA SWM Law encourages regional SMW as being more efficient. Yet these proposed regulations create a burdensome approval process, including Board approval of any amendments and revisions.	In order to maintain oversight to a crediting process for stormwater and to make sure that all necessary reductions are accounted for the department believes the language is appropriate. In order to minimize delays, we amended the decision authority from the board to the department.
James Patteson (Fairfax County)	A. States that the plans are approved by the Department, but Section A.2 states that amendments to the plans need to be approved by the Board. We recommend that both be approved by the Department.	The requested change has been made.
	4VAC50-60-95 General	
James Patteson (Fairfax County)	C. VDOT and NRCS have recognized an issue with using the current 24-hour rainfall distributions in TR-55 and TR-20 which needs to be addressed in these regulations. NOAA Atlas 14 data does not fit the TP-40 storm distributions (Type 1, Type II, Type II, etc) for all return periods, therefore, each data location now has a unique rainfall distribution for each frequency (1-year to 500-year). County division and large independent cities are the basis for selecting areas that represent rainfall magnitude and distribution zones.	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards.
James Patteson (Fairfax County)	G. A definition for "adequate outfall" should be provided on 4VAC50-60-10 (Definitions).	An existing definition for "adequate channel" has been provided in a new definitions section applicable only to

		Part II C. We were unclear as to the use of the term "adequate outfall" in the comments.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	G. "adequate channel" is no longer defined and was defined previously by MS19 creating confusion. Clarification or different terminology is needed.	An existing definition for "adequate channel" has been provided in a new definitions section applicable only to Part II C.
Michael Bumbaco (City of Virginia Beach)	I. Does the individual residential lot exception of section 4VAC50-60-112.B. apply to this paragraph?	If the individual residential lot facilities exemption in 4VAC50-60-112 is incorporated into a strategy developed by the locality in accordance with 4VAC50-60-112 D, then the inspection and maintenance plan requirements of 4VAC50-60-95 I are not applicable.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	K. "Natural channels shall be preserved to the maximum extent practicable." This statement is under the grandfathering clause, which appears to set a 'second' set of standards for grandfathered projects. It is unclear if this is the only statement that would address the 1 or 2 year storms for grandfathered projects, however if this is the case, recommend reconsidering and perhaps deferring to current (old) standards.	The channel protection requirements for grandfathered projects are defined in 4VAC50-60-97 of the regulations. The statement in K. does not establish a second set of standards as it is to the maximum extent practicable.
David Nunnally (Caroline County)	L. Reference is made to the existing E&S Regulations, which contain numerous inconsistencies and conflicts with this proposed [SWM] Regulation. We need a legal mechanism that allows a program to follow these [SWM] until the appropriate revisions are made to the E&S Regulations.	This sub-Part of the regulations contains today's Part II criteria that will be utilized for grandfathering projects. We do not intend to modify this language. However, it should be noted that the department is working towards better integration of stormwater management and erosion and sediment control and will likely provide additional clarification to this issue through future amendments. It should also be noted that 4VAC50-60-66 was already modified to stipulate that compliance with the standards set forth in that section will be deemed to satisfy the requirements of Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	M. The Board of Conservation and Recreation is introduced here, but the relationship to the SWCB and the Chesapeake Bay Local Assistance Board in these regulations is somewhat unclear. The roles of each board should be considered going forward in the implementation of these regulations.	Going forward, the only board with jurisdiction over the stormwater issues and that can approve local programs will be the Virginia Soil and Water Conservation Board. Each locality will need to seek this board's approval. However, from a grandfathered perspective, in accordance with this subsection only, each of these board's have had some authority over stormwater in the past and has approved stormwater management programs.
	4VAC50-60-96 Water quality	

James Patteson (Fairfax County)	A. Some localities, including Fairfax County, subject to the Chesapeake Bay Preservation Area Designation and Management Regulations, currently use equivalent methodologies that have been approved by the Chesapeake Bay Local Assistance Department. These localities should be allowed to continue using these methodologies.	We likely agree, although such methodologies will need to be presented as part of the stormwater program approval package.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Table1 should not be in the regulations since it is subject to change on the BMP clearinghouse website. If this section is only for grandfathered projects it needs to be clarified.	This table resides in Part II C that is only applicable to grandfathered projects.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	The reference to the 1990 manual seems outdated and should probably refer to the new manual or the BMP clearinghouse website for this information. If this section is only for grandfathered projects it needs to be clarified.	This table resides in Part II C that is only applicable to grandfathered projects. The reference to the 1990 manual is appropriate.
	4VAC50-60-97 Stream channel erosion	
David Nunnally (Caroline County)	B. Reference to MS-19 should include an appropriate variance options as is currently allowed. (In fact, the Va SWC Board and Caroline County signed a formal agreement to allow such variances.) This proposed regulation should be consistent with that.	This in no way circumvents the formal agreement we already have in place with Caroline County as it may apply to Part II C "grandfathered" projects. However, in the future the department plans to amend the E&S regulations to make them consistent with the stormwater regulations.
	4VAC50-60-98 Flooding	
John Salm, III (J.W. Salm Engineering, Inc.)	Should the language in Subsection B track that in 4VAC50-60-66 C (2a and 2b)?	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards. Those technical criteria represent today's standards and should not be subject to alteration to the greatest extent practicable.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	"watershed or regional stormwater management plan" does not match the designation, "Regional (watershed-wide) stormwater management plans" as described in the section immediately below it (4VAC50-60-99). It also does not match the definitions.	It is not our intent to make changes to the technical criteria and methodologies associated with the Part II C "grandfathered" standards. However, the department recognizes the issue being raised and believes that through guidance we can crosswalk "comprehensive stormwater management plans" with the older terms of "watershed or regional stormwater management plan" if found to be necessary.
	4VAC50-60-99 Regional (watershed-wide) stormwater management plans	
Richard Street (Spotsylvania County)	We have removed every reference to regional SWM plans and then offer it as an option??? We need to put it back into the definitions.	The comprehensive stormwater management plan contemplates the use of regional or watershed controls. Other prior used definitions were found not to be necessary.

Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	The intent of this section is unclear and possibly should be repealed or expanded to clarify.	The department believes that the cross references to offsite compliance options and comprehensive stormwater management plans provides sufficient detail. However, guidance will be developed if further clarification is found to be necessary.
	Part III	
Michael Toalson (Home Builders Association of Virginia)	HBAV supports the adoption of Part III of the proposed Regulations.	The department appreciates the support for this Part of the regulations.
	4VAC50-60-103 Stormwater program administrative authority requirements for Chesapeake Bay Preservation Act land-disturbing activities	
Lalit Sharma (City of Alexandria)	C. Allows permit issuance of $290 and annual maintenance of $50. Final Part XIII is $200 for issuance, $20 for modification and $50. How will this work with the already approved Part XIII? Please clarify.	The final Part XIII language allowed for permit issuance of $290 and annual maintenance of $50 once the new fee tables are implemented.
	4VAC50-60-104 Criteria for programs operated by a stormwater program administrative authority	
Alice Kelly (City of Norfolk)	If Norfolk adopts requirements that are more stringent than the propose regulations, subsection B states that "the department shall consider such requirements in its review of state projects within that locality". Norfolk is concerned that state projects may not have to comply with local ordinances. All state projects should be subject to each locality site plan review process, including the associated fees and compliance requirements.	By law, the department is responsible for all state and federal projects and shall be addressed in accordance with the Part II technical criteria.
	4VAC50-60-108 Stormwater management plan review	
John Salm, III (J.W. Salm Engineering, Inc.)	In subsection B, who within the County will determine completeness?	The responsible party will be determined by the locality prior to board approval of the program.
James Patteson (Fairfax County)	B. 1. Requires that the completeness of a plan be reviewed upon submission and such determination be communicated to the applicant within 15 days. If not communicated within 15 days then the plan is deemed complete. Stormwater plans are typically reviewed as part of a more complete site plan, subdivision plan, or grading plan submission rather than as separate submissions. This requirement creates an unnecessary step in the review process and is not found in statutory review times for other types of plans. Consider replacing this requirement with a provision that allows localities to perform completeness reviews at their discretion.	§10.1-603.8 requires the review of plans within 60 days of the date of submission. The advisory committees found that 15 days was a reasonable threshold to determine completeness of the stormwater management plan.
John Salm, III (J.W. Salm Engineering, Inc.)	In subsection D, who within the County will check evidence of VSMP permit coverage?	The responsible party will be determined by the locality prior to board approval of the program.
Lalit Sharma (City of	B. Review timelines are not feasible in an ultra-urban setting and quite	The term “calendar” has been used throughout this

Alexandria)	unrealistic (especially the 15-day completeness). Further, please clarify "calendar" or "work".	section. §10.1-603.8 requires the review of plans within 60 days of the date of submission. The advisory committees found that 15 days was a reasonable threshold to determine completeness of the stormwater management plan.
Lalit Sharma (City of Alexandria)	E. Refers to -124 but this section has been struck in the final.	In subsection E the reference to section 124 has been corrected to be section 112.
James Patteson (Fairfax County)	E. There is not 4VAC50-60-124.	In subsection E the reference to section 124 has been corrected to be section 112.
John Salm, III (J.W. Salm Engineering, Inc.)	E. Construction record drawings may or may not be required. 4VAC50-60-55 D requires construction record drawings. Discretionary? Stormwater runoff affects public water bodies and roadways. BMPs need to be properly designed, built and verified. Additionally, 4VAC50-60-126 B 3 indicates the drawings must be maintained in perpetuity.	Per the regulations, construction record drawings are required for all facilities except those designed to treat stormwater runoff primarily from an individual residential lot on which they are located. Construction drawings are required for all other facilities. A correction to an incorrect reference in 4VAC50-60-108 has been made that may help clarify this intent. No additional changes have been made.
	4VAC50-60-112 Long-term maintenance of permanent stormwater management facilities	
James Patteson (Fairfax County)	A. Refers to an "instrument recorded". Recommend clarifying what this is in the paragraph or definitions. Is this simply the maintenance responsibility (i.e. public or private? Maintenance agreements for private facilities? Easements?)	This terminology was left broad to provide localities with maximum discretion in choosing the appropriate mechanism to ensure the long-term maintenance of the BMPs.
Randy Williford (Loudoun County)	Add a new paragraph A as follows: The stormwater program administrative authority may assume long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff.	The department believes this information is generic to any entity that has responsibility for the maintenance of stormwater management facilities. Even if a locality has assumed the responsibility for these facilities, all the requirements listed in 4VAC50-60-112 will still need to be documented through a recorded instrument. No changes have been made.
Randy Williford (Loudoun County)	Re-label the existing paragraph A as B and amend the first sentence as follows: When the stormwater program administrative authority does not exercise the prerogative granted in paragraph A, it shall require the provision of long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff.	No changes have been made.

	Re-label the existing paragraph B as C.	
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	CBF maintains that it is imperative that all permanent stormwater BMPs be recorded to ensure they remain operable for their design life. Short-staffing at localities should not preclude this requirement and, in fact, this requirement could ease staff burdens since the responsibility to record the stormwater BMP lies with the developer or builder and the responsibility to comply with the recorded instrument lies with the landowner. A quick Google search shows that states and localities across the U.S. already require a recorded maintenance agreement, deed restriction, or protective covenant for permanent stormwater BMPs, including those on individual residential lots. CBF recommends that this provision be struck in its entirety from 4VAC50-60-112.B.	The department believes that the current draft language is reasonable and represents a balanced and reasonable approach to ensuring the proper maintenance of BMPs.
William Bullard and Christine Porter (Navy/DOD REC Support)	This section requires recording the responsibility for maintenance requirements of stormwater management facilities in local land records. In addition, the instrument used for recording the requirements shall run with the land, provide necessary access to the property, provide for inspections/maintenance and reports, and be enforceable by all appropriate governmental parties. Although we understand the intent of this provision and agree that long term maintenance of stormwater management facilities is essential to maintain the pollutant reduction capability they are designed to achieve, Department of Defense facilities may not be able to record such an instrument. We are willing to discuss alternative means of assuring Virginia that DOD facilities are maintaining their stormwater management facilities.	The department will work with DOD to develop a lawful approach.
	4VAC50-60-114 Inspections	
James Patteson (Fairfax County)	C. States that a PE, PA, LA or LS may conduct the inspections, but does not appear to require it. There are two issues: 1) Architects and Landscape architects should not necessarily be qualified to perform the inspections, and 2) the inspection doesn't need to be performed by the registered professional. Recommend change is that the "inspections should be conducted under the direction of a PE or LS".	The department suggests that the inspection alternatives are appropriate and provide localities with options. However, an alternative has been included to allow for a person who works under the direction and oversight of the licensed professional engineer, architect, landscape architect, or land surveyor to conduct the inspections.
Alice Kelly (City of Norfolk)	C. Implies that localities are required to use licensed professionals to inspect stormwater management facilities. In previous drafts of the proposed amendments, inspections completed by the owner could only be included in the local inspection program if they were completed by a licensed professional. This requirement was not applicable to localities who conduct regular stormwater management facility inspections. We suggest the department clarify this subsection or provide a certification program similar to the Erosion and Sediment Control Inspector's courses.	Subsection C is an alternative for localities should they wish to utilize an inspection provided by the owner. Should the locality wish to conduct the inspections themselves, there is no requirement to utilize a licensed professional.

Lalit Sharma (City of Alexandria)	C. States that these inspections have to be conducted by PE or similar. This should allow for a person working for a PE or similar to inspect. Going to increase cost of local program if all inspections have to be performed by such licensed person.	This change has been made.
Dwight Farmer (Hampton Roads PDC)	C. Should read. "The stormwater program administrative authority may utilize the inspection reports of the owner of a stormwater management facility as part of an inspection program established in subsection B of this section if the inspection is conducted by a person …"	This change has been made.
David Nunnally (Caroline County)	C. Clarify the reference to "Utilize the inspection reports" in the first sentence. Is this referring to inspection reports required by the general permit? If that is not the case, we recommend allowing such an option. This would greatly reduce the duplication of effort and create a truly 'user funded' inspection program. Let's do one inspection and enforce it, effectively.	This section refers to post-construction inspections as part of an on-going stormwater management facilities inspection program. It does not speak to VSMP inspections conducted during construction.
	4VAC50-60-116 Enforcement	
John Salm, III (J.W. Salm Engineering, Inc.)	C. Where is the schedule of civil penalties?	The text in paragraph C was abbreviated to represent the schedule of civil penalties that the Code of Virginia calls for.
Michael Bumbaco (City of Virginia Beach); Alice Kelly (City of Norfolk), Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	D: Regarding the statement: "authorization to administer a local stormwater management program shall not remove from the board the authority to enforce the provisions of the Act and attendant regulations," we trust the Department of Conservation and Recreation will notify the local stormwater program administrator and arrange to be accompanied by representatives of the qualifying local stormwater management program, prior to conducting inspections, enforcement, plan review, or program review within the locality. A standard written procedure or process flow chart for department oversight of the qualifying local stormwater management program would help reduce confusion and misdirection given to permittees and other stakeholders.	We agree this will take a coordinated effort between localities and the department. The department will develop guidance and procedures to address these program elements.
	4VAC50-60-122 Exceptions	
Richard Street (Spotsylvania County)	C. The BMP clearinghouse is not established and there is not enough leeway for new designs and/or products. It will be difficult to take each different BMP that does not show on the clearing house to them for approval or wait for the board's quarterly meetings. This needs to be flexible.	The BMP Clearinghouse is established. The department recognizes it will need to have a flexible and timely process for reviewing new BMP options or for making necessary modifications.
James Patteson (Fairfax County)	A. The conditions required to be met for the granting of a variance are too stringent and in some cases difficult to evaluate. In particular, conditions (iii) granting the exception will not confer any special privileges that are denied to other similar circumstances that are self-imposed or self-created are problematic. Under 4VAC50-30-50 of the Erosion and Sediment Control Regulations, variances may be granted for requirements that are	The exception processes has been vetted over the last several years within the advisory committees. We believe that the draft language strikes the appropriate balance. Additionally, the availability of offsite options should greatly limit the use of exceptions.

	deemed inappropriate or too restrictive for site conditions with the following caveat: The plan approving authority shall consider variance requests judiciously, keeping in mind both the need of the applicant to maximize cost effectiveness and the need to protect off-site properties and resources from damage. The economic efficiency of the regulations as a whole is an evaluation criteria for their adoption; there is not inherent reason that economic efficiency (cost effectiveness) can't be considered in the review of variance requests. We recommend that proposed conditions (iii) and (iv) be replaced with conditions paralleling the requirements in the Erosion and Sediment Control Regulations.	
	4VAC50-60-126 Reports and recordkeeping	
John Salm, III (J.W. Salm Engineering, Inc.)	B 3 indicates the drawings must be maintained in perpetuity. However, in 4VAC50-60-108 E, construction record drawings may or may not be required. 4VAC50-60-55 D requires construction record drawings. Discretionary? Stormwater runoff affects public water bodies and roadways. BMPs need to be properly designed, built and verified.	When construction record drawings are required, the regulations specify that they must be maintained in perpetuity. Per the regulations, construction record drawings are required for all facilities except those designed to treat stormwater runoff primarily from an individual residential lot on which they are located. Construction drawings are required for all other facilities. A correction to an incorrect reference in 4VAC50-60-108 has been made that may help clarify this intent.
James Patteson (Fairfax County)	This reporting should match the format for equivalent requirements for MS4 permits, or at least be compatible.	The department will take this recommendation under consideration.
	Part III B	
Keith White (Henrico County)	The language in the title should refer to Local Stormwater Management Programs, not Plans.	The change has been made.
	4VAC50-60-144 Local stormwater management program review	
David Nunnally (Caroline County)	What process is proposed to review Board/DCR-administered local programs? There should be some type of review to ensure compliance, consistency, etc.	The department will utilize guidance and internal training to ensure consistency.
Keith White (Henrico County)	A step needs to be added to the program review process – possibly as an item between C and D - that requires the department to review its preliminary finding with the locality prior to submitting the recommendations to the board. This is currently missing from the ESC program review process and its omission has resulted in formal inconsistency findings that are based on incorrect information and misunderstandings that could have been avoided had the department discussed its review with the locality prior to "finalizing" the report. This issue has been raised during the recent meetings concerning revisions to the ESC program review process. As currently written, department recommendations would not be sent to the	During development of the department's stormwater management program review procedures this item will be addressed. This has already been added into the new erosion and sediment control program review procedures.

	locality until after it has been sent to the board. At that point, based on our experience with the ESC program review process, department staff is not willing/able to change the recommendations. A similar, open process is used by the Chesapeake Bay Local Assistance Division of DCR. That process provides an opportunity for the locality to review the recommendations before they are sent to the Chesapeake Bay Local Assistance Board.	
James Patteson (Fairfax County)	B. Elaborate on the process for review of the inspection program.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training.
Michael Bumbaco (City of Virginia Beach), Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	F. This paragraph pertains to deficiencies noted in the board's review of local stormwater management programs. It states: "the board shall notify the local stormwater management program concerning the deficiencies and provide a reasonable period of time for corrective action to be taken." The duration for corrective action depends on the complexity and extent of the deficiency. The locality may need 3 months for minor corrective actions and as much as 3-5 years for major, complex corrective actions. We suggest the department develop standard written procedures and process flow charts for consultation and negotiation with the locality to determine reasonable time frames for correcting deficiencies due to the department's and board's reviews of the local program.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training.
	4VAC50-60-148 Local stormwater management program administrative requirements	
Alice Kelly (City of Norfolk)	It would be more effective and efficient to have the construction general permit administered by either the state or the locality, rather than both as currently proposed in these regulations.	Under these regulations administration of the construction general permit will remain with the department. The responsibility to ensure that the requirements of the general permit are met will be with the locality. Utilization of local entities makes the "one-stop-shop" and enforcement more efficient. Additionally, in order to make this viable for a local government there is a cost share of permit fees provided.
Alice Kelly (City of Norfolk), Dwight Farmer (Hampton Roads PDC)	DCR should provide model ordinances as soon as possible for localities to use in developing local programs in order to allow adequate time for legal review and program implementation. Norfolk requests specific guidance regarding the fee collection process and the procedures for distribution to the state.	The department will be quickly shifting to local program adoption and implementation. During the implementation phase, the department will focus on developing guidance (including model local ordinances) for localities and providing technical assistance and

		training. Upon completion of the Enterprise website, the department intends to work with localities on guidance and training. However the department understands that there are certain sections in Part XIII that will need some minor procedural refinements before the program is implemented in 2014. We want to wait until the design of the Enterprise Website has been fully fleshed out as it may inform us as to where additional procedural amendments may be necessary.
	4VAC50-60-150 Authorization procedures for local stormwater management programs	
Michael Bumbaco (City of Virginia Beach); Alice Kelly (City of Norfolk), Dwight Farmer (Hampton Roads PDC)	D. This subsection refers to the requirements of Section 10.1-603.3 A of the Code of Virginia. That section of the Stormwater Management Act requires local program ". . .adoption no sooner than 15 months and not more than 21 months following the effective date of the regulation. . ., unless the Board deems that the Department's review of the local program warrants an extension up to an additional 12 months, . . ." Given the complexity and extent of this proposed regulation, the MS-4 program, the Chesapeake Bay and other water quality TMDL's, our City's organizational structure, and our City's man-made and natural features and land-use (228 square miles of land that is almost fully developed to Zoning limits); a substantial amount of leadership, effort, and coordination will be required to implement the local stormwater management program. The City of Virginia Beach requests starter funding and assistance for establishing the proposed local stormwater management program, as well as the next MS-4 permit and related permit programs. These expanded requirements will require a much larger, more detailed and complex stormwater management program than our current one.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Dwight Farmer (Hampton Roads PDC), Amar Dwarkanath (City of Chesapeake)	This section currently states that localities required to adopt a local program must submit an application package to the Board consistent with §10.1-603.3 A of the Code of Virginia. This section currently requires localities to adopt programs within 15-21 months following the effective date of the VSMP Regulations. If the effective date of the Regulations becomes October 2011 as DCR expects, then localities will have to adopt local programs between January and June 2013. Requiring a full year between the time localities must adopt programs and July 1, 2014 when the technical criteria of these regulations will be implemented seems excessive. Localities will need additional time to adopt the ordinances required by this	The department will take this under advisement as we develop the implementation process. It is our intent for all ordinances to become effective on July 1, 2014.

	regulation. The localities suggest that §10.1-603.3 A of the Code of Virginia be revised to require that local programs be in place prior to July 1, 2014.	
	Documents Incorporated by Reference	
James Patteson (Fairfax County)	We recognize that some supplemental guidance on computational methodologies, facility design standards, etc. outside of the regulations is necessary. However, documents should not be incorporated into regulations by reference. This has the effect of giving them the force of regulations without having to go through the full regulatory review process. The place for referencing these documents is the Stormwater Management Handbook.	The department believes that the incorporation of certain documents is appropriate and warranted to ensure their enforceability.
	Local Program Development and Implementation	
Steven Herzog (Hanover County)	The initial effort to become an approved local program is an unfunded mandate on localities. Financial assistance should be provided to localities that are required to adopt and implement local stormwater programs. The state may also want to consider offering financial assistance to localities that elect to become approved local programs if it is the State's desire to encourage local implementation of this program.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Randy Bartlett (Virginia Municipal Stormwater Association)	Adequate funding will be needed to successfully integrate and implement the revised regulations at the local level. There will be costs associated with the start-up and calibration of local programs, including ordinance revisions. At the same time, VAMSA acknowledges and understands the fiscal constraints facing all levels of government at this time. Our member localities are facing more and more tough spending choices as the effects of the financial downturn continue to ripple through the economy. Without funding assistance, however, localities required to adopt a local program will be forced to make painful budgetary choices, while those localities that are not required to adopt a local program will have little reason to do so if they must incur additional costs. In order to encourage the success of the revised regulations, VAMSA suggests the Board and DCR consider a grant program similar to the Bay Act Implementation Grant Program.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities. During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Michael Bumbaco (City of Virginia Beach)	Immediate implementation of a committee for local stormwater management program guidance is needed. Each locality that is required to	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and

	or planning to be a permit-issuing authority will need to go through several steps in developing the administrative, financial, legal, operational, and public involvement aspects of their program, including coordination with and reviews by the federal and state agencies involved with the program. We need startup funding, staff assistance, model ordinances, model programs, suggested fee structures, and other guidance now.	implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities. The department is currently having internal discussions regarding implementation strategies and does intend to establish an advisory committee to work with the department in resolving and establishing the necessary implementation procedures and support documentation.
Larry Land (Virginia Association of Counties)	VACo wishes to reinforce the concern raised by VAMSA about the need for start-up funding to support local stormwater programs. As many local governments are facing difficult spending decisions, financial assistance from the state, similar to the Bay Act Implementation Grant Program, could be critical to the success of the Virginia Stormwater Management Program.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Joe Lerch (Virginia Municipal League)	The proposed regulations culminate a process initiated by state law in 2004 to establish more stringent controls for stormwater runoff and delegate stormwater permitting and inspection to local governments. VML commends the department for all its hard work in bringing the various stakeholders together – including local governments - in drafting these regulations. Of our 207 member governments, 76 (32 cities, 8 counties, 36 towns) will be required to adopt the local program to administer and enforce the proposed regulations. Even though local governments can implement fees to cover administrative costs, they will be forced to spend general funds from their operating budgets to run these programs. With local budget shortfalls and limited revenue generation capability, our member governments need financial assistance to implement these proposed regulations. For historical reference we point to the financial assistance of the 1990s, provided in the form of start-up grants to local governments, to implement the Chesapeake Bay Preservation Act and its attendant regulations. Therefore, and in the spirit of fostering a strong state/local partnership for efforts to improve water quality throughout the commonwealth, we recommend that that the Board and DCR consider a grant program similar to the grant program referenced above.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Amar Dwarkanath (City of Chesapeake)	It is imperative that DCR develop model ordinances, guidance, and procedures as quickly as possible in order to facilitate local program	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and

	implementation of these regulations. It takes a substantial amount of staff time and effort, as well as a certain amount of public involvement, to make changes to local ordinances, fees, Public Facilities Manuals, and procedures. Additionally, funding will be needed to implement these regulations and so far has not been provided for by the State. We recommend that starter or grant funding be provided for localities required to adopt these new programs.	implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities. During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Maurice Jones (City of Charlottesville)	Concerns about the budget implications of these regulations continue. Localities will need funding and technical resources to become a qualifying local program.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement.
Steven Herzog (Hanover County)	A process must be developed where approved local programs have a reasonable opportunity to change their local ordinances after changes to VSMP permits are adopted. Delegation of this program to localities will not work if local programs lose their approval when changes are made to VSMP general permit requirements.	It is the department's intention to ensure that the general permit is completed with adequate time for localities to update their ordinances before the effective date of the general permit.
Steven Herzog (Hanover County)	Much work remains to be done in working out the details of the interaction between localities and state related to the new stormwater program. This includes the collection and disbursement of fees, the issuance and closure of VSMP permits, the development of draft ordinances, and other items related to running local and state programs. We suggest that a local programs committee be formed by the state to address these and other issues.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities. The department is currently having internal discussions regarding implementation strategies and does intend to establish an advisory committee to work with the department in resolving and establishing the necessary implementation procedures and support documentation.

William Street and Adrienne Kotula (James River Association)	Numerous localities are already struggling with how to effectively monitor and maintain a growing number of stormwater practices. This is an important issue to ensure that stormwater practices continue to function properly and protect the Commonwealth's waters from stormwater impacts. As land development continues in the future, this need will continue to grow. JRA encourages DCR and the SWCB to help localities obtain the tools and resources necessary to address this existing and increasing need.	During the implementation phase, the department will focus on developing guidance for localities and providing technical assistance and training. The department will consider providing start-up grants to certain localities to assist them with establishing programs and to encourage those voluntary jurisdictions to become program adopters. We will also provide information to localities regarding securing DEQ revolving loan funds to assist with the various aspects of program establishment and enhancement. It is also recognized that localities do have a number of tools at their disposal to address long term costs. Although no additional new mechanisms are contemplated at this time, the department would be willing to work with VACo and VML in the development of other reasonable long term funding strategies.
William Street and Adrienne Kotula (James River Association)	The proposed regulations incorporate the most recent science and practice of stormwater management. However, implementation of the proposed regulations will be crucial to realizing their full environmental benefit. The development of clear guidance and appropriate training of local site plan reviewers, stormwater consultants and developers will help improve the understanding and effective use of the tools associated with the new regulations.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities. It is recognized by the department that we will need to focus on developing guidance for localities and providing technical assistance and training.
David Nunnally (Caroline County)	We request that DCR staff work with the locality in the development (and improvement) of the local program through education, training, technical assistance, etc as requested by the locality.	Upon the adoption of these regulations, the Department will be quickly shifting to local program adoption and implementation. The Department will need to consider a host of strategies to develop the necessary partnerships with localities.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	At the local level, we feel that these regulations will create an even more dramatic need for a dedicated source of funding. In addition to the water quality challenges, the ASCE Report Card for Virginia states, "34% of the stormwater systems in the state are more than 50 years of age and 29% are over 25 years of age." A better understanding of the success of public utilities in funding stormwater infrastructure would be useful at the state level, to include recognizing the success of public stormwater utility programs, even in these tough economic times. With most stormwater utilities charging customers an average of $5 per month (per ERU) this seems like the best approach to success in funding at the local level, and it	The establishment of stormwater utility fees is certainly up to each locality. The department does concur that the establishment of these fees is one of the best mechanisms available to address stormwater retrofits.

	would be in the state's best interest to understand and encourage funding sources as part of your program's development.	
	Fees	
Steven Herzog (Hanover County)	In addition to start-up costs, the fees approved by the state do not address the financial needs of the long term inspection programs required to be run by approved localities and the state. We understand that localities have the option to utilize general funds, service districts, and stormwater utilities to fund these long term costs. Hanover believes that state financial assistance to localities for this state mandated program would be appropriate.	As noted in the comment, localities do have a number of tools at their disposal to address long term costs. Although no additional new mechanisms are contemplated at this time, the department would be willing to work with VACo and VML in the development of other reasonable long term funding strategies.
Steven Herzog (Hanover County)	In localities where the program is administered by the state, what mechanism will the state utilize to fund long term costs? It would not be equitable for citizens in localities with local programs to have to both fund their local long term program costs through a local funding option and then also fund the state's long term program costs in localities where the program is managed by the state.	Where it is recognized that localities have the authority to establish stormwater utility fees to fund long term costs, it is recognized that DCR currently has few tools available to address long term costs. The Department will be strongly encouraging all localities to establish stormwater programs statewide.
Randy Bartlett (Virginia Municipal Stormwater Association)	VAMSA recommends that the Board reopen Part XIII of the regulation in order to fine-tune the issues raised during the regulation development process (fee collection, accounting, and administration). Should the Board reopen Part XIII of the regulation, VAMSA would appreciate the opportunity to designate one of its members to serve on any committee or panel convened for that purpose.	The department understands that there are certain sections in Part XIII that will need some minor procedural refinements before the program is implemented in 2014. However, we want to wait until the design of the Enterprise Website has been fully fleshed out as it may inform us as to where additional procedural amendments may be necessary.
Larry Land (Virginia Association of Counties)	VACo wishes to emphasize its agreement with VAMSA's proposal to reopen the "fee" section (Part XIII) of the proposed regulation in order to re-address certain issues raised as the regulations were being developed.	The department understands that there are certain sections in Part XIII that will need some minor procedural refinements before the program is implemented in 2014. However, we want to wait until the design of the Enterprise Website has been fully fleshed out as it may inform us as to where additional procedural amendments may be necessary.
Amar Dwarkanath (City of Chesapeake)	We strongly recommend that Part XIII (4VAC50-60-700 through 4VAC50-60-840 Fees) be reopened and revised. This section is out of date and no longer coincides with the revised version of parts II and III. Additionally, many questions remain about how the fees were developed, who will actually collect the fees, and the manner in which they will be collected. These issues are important and must be carefully planned for. The City of Chesapeake welcomes the opportunity to participate in any advisory panels or committees should Part XIII be reopened.	The department understands that there are certain sections in Part XIII that will need some minor procedural refinements before the program is implemented in 2014. However, we want to wait until the design of the Enterprise Website has been fully fleshed out as it may inform us as to where additional procedural amendments in the regulations may be necessary. It is anticipated that the Enterprise Website will be

		utilized to address most fee collection and distribution issues. Additionally, details on the extensive process utilized to develop these fees are detailed in the economic analysis that was included in the TownHall discussion form for the proposed regulations and other Department working papers on the subject that are available on the Department's regulatory website.
	Program Coordination	
Steven Herzog (Hanover County)	Localities and the state will need better communication and coordination if we are to minimize future conflict in implementing these new regulations. As the VSMP permit is still a state permit, differences in interpretation of the regulations is bound to lead to differences in how they should be implemented. The State making a determination that approved plans do not comply with the stormwater requirements after a project is under construction is not fair to the locality that has been mandated (or elected) to run the local program, is not fair to the person developing the project, and is not fair to state staff. This type of issue should be addressed at the program level between the locality and state and not the site level. This is not to be confused with issues related to non-compliance with approved plans.	Although the department will continue to retain its over-filing authority and may be disposed to use it in appropriate situations, we concur that most issues should be addressed and resolved as part of programmatic reviews. The department recognizes that it needs to be a close partner with the localities as we cooperatively implement Virginia's new stormwater management program.
	BMP Clearinghouse, Handbook, and Concerns	
Steven Herzog (Hanover County)	Virginia will need to add to the BMP's that are available. A streamlined process, utilizing the BMP Clearinghouse referred to in the regulations, to approve both proprietary and non-proprietary BMP's is a critical. Virginia needs to encourage the development of creative and innovative solutions. The activities of the BIVIP Clearinghouse will require a long term investment of staff resources and funding.	The department agrees that it is important to develop additional nonproprietary and proprietary BMPs and welcomes any recommendations in that regard. The department is committed to continuing efforts on this important issue.
Steven Herzog (Hanover County)	Standards for BMP's need to provide flexibility so that BMP's can be modified based on the specifics of the site where they are to be installed. Both DCR and localities should be allowed to approve variances from the BMP Clearinghouse specifications based on specific site constraints. A reduction in treatment efficiency might be appropriate in some circumstances.	The Clearinghouse BMPs establish the minimum standards and efficiencies to meet these regulations.
Steven Herzog (Hanover County)	Virginia should fund research to develop additional nonproprietary BMP's and verify the effectiveness of existing BMP's.	The department agrees that it is important to develop additional nonproprietary BMPs and welcomes any recommendations in that regard.
Steven Herzog (Hanover County)	Localities should have a permanent position on the BMP Clearinghouse Committee. The actions and recommendations of this committee will significantly impact local programs and having a local perspective is critical.	Local governments have been provided positions on the BMP Clearinghouse Committee and will continue to hold seats on the committee.
Donald Rissmeyer	Shouldn't a local program have a role in identifying new BMP technologies	Local governments have been provided positions on the

(Virginia Section American Society of Civil Engineers)	for review by the BMP Clearinghouse Committee? This should be clarified in the regulations.	BMP Clearinghouse Committee and are welcome to submit new BMPs to the Clearinghouse for consideration.
James Patteson (Fairfax County)	The lack of availability of design standards for the stormwater facilities and other guidance documents is a concern. The Stormwater Management Handbook is still in a draft stage. The list of BMPs provided on the Virginia Stormwater Clearinghouse is limited and will restrict the use of additional applicable technologies	The department will be quickly shifting to local program adoption and implementation. It is recognized by the department that we will need to focus on developing guidance for localities and providing technical assistance and training. This includes finalizing the handbook and continuing to expand upon the suite of BMPs already available on the BMP Clearinghouse.
James Patteson (Fairfax County)	The proposed technical criteria will necessitate the use of many more decentralized stormwater management facilities for each development project to achieve the required results. The long-term effectiveness of many of these facilities is unknown and many of them require specialized maintenance and operation. This places a financial burden on the owner of the facility and a burden on the localities that have to develop a program to ensure their continued effectiveness…the program needs to address long-term financial sustainability.	The locality working with the operator can work to reasonably control the number of BMPs utilized to meet the necessary reductions. However, long-term maintenance of the facility rests with the operator unless assumed by the locality. It is also recognized that localities do have a number of tools at their disposal to address long-term costs. Although no additional new mechanisms are contemplated at this time, the department would be willing to work with VACo and VML in the development of other reasonable long term funding strategies.
Virginia R. Rockwell	While the BMP clearinghouse website is unavailable - and when queried, DCR staff have indicated it will not be available again UNTIL SEPTEMBER! - THE CONTENT OF THESE PRACTICES MUST BE MADE AVAILABLE TO THE PUBLIC. Test the link in the proposed regulations, and you will find that you are unable to receive any information on the proscribed best management practices (BMP's).	The link to the BMP Clearinghouse has been checked and it works fine. The BMP standards and specifications are readily available.
Lalit Sharma (City of Alexandria)	No propriety or manufactured BMPs are listed on the BMP Clearinghouse website for removal efficiencies.	Correct but the board through the department is developing the Virginia Technology Assessment Protocol to be followed by those requesting proprietary BMPS to obtain a recognized efficiency and be listed on the BMP Clearinghouse Website.
Nicole Rovner (The Nature Conservancy)	DCR's updates to the Virginia Stormwater Management Handbook and the requirement that permit applicants utilize the updated BMPs will provide markedly improved methods for preventing, reducing, and treating stormwater on site. As has been raised frequently during the development of these regulations, industry, engineers, and stormwater experts have made dramatic improvements in stormwater management over the years,	The department agrees.

	and revisions to the handbook provide a way to ensure those improvements are understood and effectively delivered in the field.	
Marc Aveni (Prince William County)	The BMP Efficiencies assigned are low for any non-infiltration based BMP. In addition to the additional costs associated with the infiltration-based BMPs, these BMPs are not suitable in areas with clayey soils, shallow rock and seasonal high groundwater table areas. Unfortunately, much of Northern Virginia faces these constraints thereby making it difficult to implement.	The department understands these concerns but believes that the regulations can be implemented in Northern Virginia based on the wide range of BMPs available as well as the offsite compliance options.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	These regulations should not include detailed information that will be updated through the BMP clearinghouse, since the technical details are likely to be deemed obsolete at some point in the future. Specific references to "version and date" on the BMP technologies listed in these regulations is strongly discouraged by our committee. As written, it locals these minimum standards in for the duration, and will discourage the use of newer and better standards, which can be easily distributed otherwise through the BMP clearinghouse. The BMP clearinghouse information and the new stormwater manual should be developed in concert with these regulations and promulgated together, flowed by educational outreach for practitioners to ensure consistent application. These regulations should also be modified to allow for innovations on BMP technology which can be submitted and approved through the BMP clearinghouse, and then replacing older versions with the improved standards and guidelines as they are developed and approved for use by the BMP clearinghouse committee. This approach will be simple to address in the regulations, and much more adaptable to technology changes.	In order for design certainty to be in place for developers and for the enforceability of these designs during inspections, the primary practices that may be utilized to achieve the required technical criteria are set out by version number and date. This is in lieu of the entire Table with efficiencies being located in the regulations and represents a compromise in that regard. As noted, the detailed specifications for these BMPS have been posted to the BMP Clearinghouse. However, in accordance with the regulations, a process has been put in place where-by modifications can be made to existing practices and categorized as a new BMP that may be utilized once it has been reviewed and approved by the director. The process also allows for other new BMP technology to be added and utilized. We think that this approach adds both certainty and flexibility. No changes to the regulations have been made.
	Runoff Reduction Methodology	
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	CBF indicated that the Virginia Runoff Reduction Method must be used to determined compliance with the water quality criteria. CBF supports the Runoff Reduction Method as an excellent new tool that has the potential to advance Virginia's post-construction stormwater program by facilitating a shift of more site designs from traditional detention practices to runoff prevention and reduction practices, standardizing compliance assessments, and compelling better site designs in general.	The Department has retained the use of this important tool and has updated the associated spreadsheets in accordance with the revised regulations.
Nicole Rovner (The Nature Conservancy)	The requirement to utilize the Virginia Runoff Reduction Method to determine compliance with the phosphorus water quality criterion is a significant step forward from existing regulations, most notably because it requires management of a 24-hour one inch rain event (existing regulations target treatment of only one-half inch rain event), incorporates managed turf in calculation of post-development phosphorus load that must be managed, and establishes a simpler, more straight-forward process for	The Department has retained the use of this important tool and has updated the associated spreadsheets in accordance with the revised regulations.

	selecting BMPs and driving more effective and sustainable site designs. In addition, the Runoff Reduction Method should increase compliance with the regulation as it provides a valuable tool for standardizing and simplifying compliance assessments.	
Amar Dwarkanath (City of Chesapeake)	The Runoff Reduction Method and volume reduction requirements in these technical criteria will be extremely challenging to implement in the Tidewater Region due to the high groundwater table and soil types found in the area. Allowances need to be made for the natural hydrogeologic conditions of the region. We are requesting that extensive guidance be provided on implementation of the Runoff Reduction Method or that other methods be provided which can be utilized in Virginia's Coastal Plan. Additionally, achieving volume improvement factors of 10 to 20% over predevelopment conditions in the Coastal Plain is not technically feasible for the same reasons and appears to be excessive. Chesapeake maintains that our current requirement ($Q_{Developed}$ cannot exceed $Q_{Pre\text{-}Developed}$) is protective of water quality.	This regulation provides extensive flexibility for operators working with the local governments to achieve the necessary reductions and guidance will be developed to further address this issue. Further, localities are authorized by the regulations to advance another equivalent methodology that is approved by the board. Additionally, where it is found that the technical criteria cannot be met, the stormwater program administrative authority may grant exceptions to the provisions of Part II B or Part II C of these regulations.
	Meeting TMDL Requirements	
James Patteson (Fairfax County)	The water quality and water quantity criteria established in the regulations for development may be inadequate to address the requirements of the Chesapeake Bay TMDL. It appears that in most cases, the Chesapeake Bay model is more conservative than the proposed state stormwater regulations, with lower removal efficiencies for various BMPs and high sediment loading rates for the urban environment.	The department believes that the post-construction criteria are protective of water quality and will not cause or contribute to an impairment. Additionally, if a specific WLA for a pollutant has been established in a TMDL and is assigned to stormwater discharges from a construction activity, operators are required to identify and implement additional control measures during construction in order to ensure that discharges are consistent with the assumptions and requirements of the WLA in a State Water Control Board approved TMDL. The efficiencies on the BMP Clearinghouse represent our best science based estimates for the specific BMP designs noted. These are the most appropriate efficiencies to be utilized by Virginia when addressing the technical criteria in order to protect water quality. However, we do recognize that BMPs reported to the EPA may be subject to different efficiencies for the calculation of progress towards the Chesapeake Bay TMDL. We will continue to speak with EPA on this crediting issue.
	Nutrient Offsets	
Steven Herzog (Hanover	Administrative details on the use of nutrient offsets need to be developed.	The department will be revising its current guidance on

County)		offsets in response to legislation passed during the 2011 Session and to further discuss the implementation of these regulations. We will also work with DEQ and their stakeholders on the expansion of the Nutrient Credit Exchange to address more stormwater offset strategies.
	General Comments	
Edward Graham	Violations to the existing regulations are prevalent everywhere. Making regulations more stringent will only result in more crime, more fear of development ventures and a worse economy. Why can't we just focus on doing a better job with what we already have.	The Department, EPA, and localities have been working on reducing violations. Improved compliance is not enough however. The regulations are being promulgated to better protect water quality and to establish a more streamlined stormwater program administration process that should improve compliance markedly.
Mike Gerel and Margaret Sanner (Chesapeake Bay Foundation)	CBF strongly recommends that DCR specifically commit to conduct an initial evaluation of the effectiveness of the combination of the Runoff Reduction Method and the water quantity criteria at reducing runoff volume and present the results to the Board by December 31, 2014. The study should assess a statistical sample of sites deemed compliant with the final proposal from around the state that represent different development types and site conditions to determine at a minimum the average runoff volume and/or storm event captured on site and consistency between pre-development and post-development runoff hydrographs. This information should be considered by DCR and the Board in determining whether more prescriptive runoff volume-related criteria are appropriate for all or some new development sites, such as greenfields or sites discharging to sensitive waters.	Between the adoption of these regulations and July 1, 2014, the department is going to need to focus extensively on the development and approval of local stormwater management programs. It will not be until the programs are being implemented in 2014 that data will start becoming available to conduct such an assessment. The regulations already commit in 4VAC50-60-63 that "[u]pon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards".
William Street and Adrienne Kotula (James River Association)	The Runoff Reduction Method combined with the newly proposed water quality and quantity criteria have the potential to improve waterways within Virginia, but the true effectiveness of this approach is not yet fully understood. JRA requests that DCR commit to conduct a study, within the next five years, to determine the effectiveness of these regulations, present the results to the Soil and Water Conservation Board, and assess needed refinements to the regulations.	Between the adoption of these regulations and July 1, 2014, the department is going to need to focus extensively on the development and approval of local stormwater management programs. It will not be until the programs are being implemented in 2014 that data will start becoming available to conduct such an assessment. The regulations already commit in 4VAC50-60-63 that "[u]pon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards".
Nicole Rovner (The Nature Conservancy)	We concur with the Chesapeake Bay Foundation in their recommendation that DCR should study the effectiveness of the Runoff Reduction Method and TNC Comments on VSMP water quantity criteria at reducing runoff	Between the adoption of these regulations and July 1, 2014, the department is going to need to focus extensively on the development and approval of local

	volumes sufficient to protect the ecological and hydrologic integrity of downstream receiving waters, as well as private property, infrastructure and other resources subject to flooding from urban and suburban stormwater. It has always been the Conservancy's position that the quantity of stormwater runoff is just as important to the health of our streams and rivers as the quality. While the proposed amendments do appear to represent progress on this front, we are concerned that some of the tools the regulations will employ are untested and we believe that they would benefit from field evaluation. DCR and the Board should use study results to determine whether all or certain new development sites, such as greenfield development or sites discharging into sensitive or important waters, should be subject to more prescriptive runoff volume standards in the future.	stormwater management programs. It will not be until the programs are being implemented in 2014 that data will start becoming available to conduct such an assessment. The regulations already commit in 4VAC50-60-63 that "[u]pon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards".
Steven Pandish (William H. Gordon Associates, Inc.)	Comments submitted on August 21, 2009 centered on "the level of complexity" and the "unknown associated costs" which I believed to be "the greatest impediment to an effective program". Time has passed, yet to the best of my knowledge, the concerns I expressed have not been addressed. A comprehensive economic analysis of the impact to the state of these regulations should be undertaken.	During the proposed phase of the regulations an economic overview for these regulations was conducted including the Virginia Tech report. Since that time, economic updates have been included in the discussion documents. Analyses completed in recent months for the James River Association by Williamsburg Environmental Group again re-affirm that the proposed rules are technically sound and attainable across a variety of different types of development. For each site examined by WEG, compliance with the proposed regulations and criteria was achieved on-site. The results identified some situations where the new regulations (compared to the current regulations) did not require major changes to stormwater facilities and others where they did.
John Salm, III (J.W. Salm Engineering, Inc.)	If statutory effective data is 10/5/11 and full effective data is July 01, 2014, who manages in the interim?	During the interim, the program will continue to be implemented as it is today. DCR will continue to have responsibility to make sure that regulated projects receive coverage under the construction general permit and that today's water quality and quantity standards are being properly applied.
Amar Dwarkanath (City of Chesapeake)	Chesapeake continues to believe that the VSMP permit for discharges during construction activity should be separated from the post-construction technical criteria. In other words, compliance with post-construction technical criteria and local stormwater management plan approval should be a prerequisite to obtaining a VSMP permit, not one in the same process. The VSMP permit for discharges during land disturbing activities does not authorize post-construction discharges and should not be tied to the local	Part III was revised to address much of this concern, however, it is the intention of the law and this department to make sure that "one stop shopping" is provided to the development community.

	post-construction plan review process. Making this separation would greatly simplify implementation of these regulations, particularly in the areas of grandfathering and fee collection.	
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Little reference is given to encourage minimization of impervious cover. Some states and TMDL's have set impervious cover thresholds. While the regulation does not, it should be encouraged or required, to at least consider ways to reduce impervious cover. Similarly, encouraging consideration of ways to reduce non-essential managed turf, replacing it with forested or natural, native and non-resource intensive vegetation should be made. Applicants should also be made aware of the implications of a recently passed bill that bans or limits the use of phosphorus based fertilizer in Virginia, as this is related to managed turf and other choices on vegetation requiring fertilization.	The department believes that the Runoff Reduction Methodology does encourage a developer to minimize impervious cover as well as managed turf. As we work on program implementation and guidance we will be incorporating educational elements related to the use of phosphorus based fertilizers.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Little reference is given to requiring the minimization of land area disturbed. This should be added as Limits of Construction designations are often needlessly large with little purpose. The effects of removing additional vegetation and compacting soil that can remain undisturbed, which otherwise provide hydrologic function, have implications for both Erosion and Sediment Control and Stormwater Management Plans.	Through our change in the definition of "site" we have tried to focus the developer on the area of land disturbance. Additionally, the department believes that the Runoff Reduction Methodology does encourage a developer to minimize unnecessary disturbance.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	The methodology for determining a load limit of 0.41 pounds per acre, per year for total phosphorus discharge has some technical basis. However, its basis does not demonstrate a level of confidence to practicing professionals as of yet, that the Commonwealth's waters will support a healthy ecosystem as a result. Continued investment in research is needed to tie the load limits within the bay watershed to a healthier ecosystem. On two related notes: a. The regulations are still written with phosphorus as a keystone pollutant instead of addressing nitrogen, sediment and other constituents of concern found through local TMDL studies. More detail on the relationship of these regulations to the other pollutants of concern and the TMDL's is warranted. b. More case studies and examples of successful BMP technologies are needed to show how these regulations will work effectively with different types of development. Specific concerns for case studies with the runoff reduction method (RRM) and the energy balance approach to protecting streams are warranted, in particular. Energy balance concerns include not applying a true energy balance approach, not applying shear stress calculations, and possible creating systems that modify discharge enough to change substrate in natural streams below, thus modifying in-stream habitat.	Between the adoption of these regulations and July 1, 2014, the department is going to primarily focus on the development and approval of local stormwater management programs. Once the programs are being implemented in 2014, data will start becoming available to conduct assessments of the runoff reduction method (RRM) and the energy balance approach. The regulations commit in 4VAC50-60-63 that "[u]pon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards".
Donald Rissmeyer	Specific applications for turf intensive uses and agricultural uses are still not	Controls of stormwater from these other land-uses,

(Virginia Section American Society of Civil Engineers)	addressed in these regulations, but pose a significant health risk to Virginia's waters. More work is needed on evaluating and addressing all land uses contributing to stormwater pollution, and promulgating appropriate regulations.	although important to water quality, are not germane to these regulations. Other voluntary and regulatory initiatives will speak to these other land-uses as may be appropriate.
Donald Rissmeyer (Virginia Section American Society of Civil Engineers)	Our committee strongly recommends continued research to better understand the linkage between urbanization, stormwater management, and the receiving waterways to promote better and refined solutions over time. To this end, we request that in addition to the new regulations, a dedicated source of funding for research on the science behind the regulations be set aside. We feel that given the amount of money that will be spent to implement these regulations on an annual basis, the applied research to improve the state of the science supporting our regulations should also be a significant investment.	The department appreciates this comment and will take it under future consideration. At this time, no funding is readily available for additional research.
Michael Toalson (Home Builders Association of Virginia)	Overall, HBAV supports the recommendations of the RAP and strongly urges the Board to adopt Parts I, II, and III in their proposed form. First, HBAV believes the proposed revisions comply with the Virginia Watershed Implementation Plan ("WIP"), which was required and approved by the Environmental Protection Agency ("EPA") following its adoption of the Chesapeake Bay Total Maximum Daily Load ("TMDL"). Second, HBAV believes the proposed revisions strike the appropriate balance by fostering significant improvements to the water quality of the Chesapeake Bay and its Tributaries while keeping Virginia a competitive market in which businesses can locate, thrive and expand. In sum, HBAV believes the proposed revisions will allow commercial and residential development to be constructed in an affordable, but responsible, manner while providing significant benefit to the watershed we all share.	The department appreciates the support for the draft final regulations.

At the Board meeting on May 24, 2011, an additional opportunity for public comment was offered. Four individuals chose to utilize this opportunity to provide comments to the Board. Comments were as follows:

Comments received during the May 24, 2011 Virginia Soil and Water Conservation Board meeting where adoption of the Virginia Stormwater Management Program (VSMP) Permit Regulations Parts I, II, and III (4VAC50-60) was being considered.

Commenter	Comment	Agency Response
Mike Rolband (Wetland Studies and Solutions)	It is not a perfect document. It is not a perfect regulation. But it represents good consensus and a compromise on many, many issues. I am sure that not everyone is happy with it, but I think it represents the best consensus that we could develop.	Since the final regulations were suspended in January of 2010, stakeholders and the department have worked hard and collectively accomplished a lot to develop these readopted final regulations as well as to refine the BMP

	I think the big thing to remember is that this is based, I believe, on sound science and sound engineering. I think the engineering as much as the science, because the science, a lot of it we do not really know. It is just an evolving field. But we are trying to make a practical solution to a tough technical problem. I want to point out that it solves a long standing problem with MS19. My entire career there has been a problem and this finally does give a solution. It still needs to be implemented in the E&S Control regulations as well. But it's a step. Finally, I hope the board continues to provide funding to staff to continue to update the BMP clearinghouse and stormwater handbook and to revise the stormwater runoff method. This is not done until we get all of the nuts and bolts together.	standards on the BMP Clearinghouse website, to develop a revised Stormwater Handbook, and to update the Virginia Runoff Reduction Method. The department believes that with these additional amendments to the regulations over the last year, the board is advancing a final set of regulations that there is general consensus around, that are established on a sound scientific basis, that advance water quality protections, and that responsibly regulate land disturbing activities. We certainly believe that the collective efforts of involved stakeholders and the department have resulted in a solid set of regulations that is supported by the best science available nationally. The department appreciates the support for the regulation and recognizes that the focus now needs to turn to implementation including the development of guidance and support documentation. The department also concurs that the water quantity section should help us address the existing problems associates with MS-19.
Peggy Sanner (Chesapeake Bay Foundation)	The proposal obviously represents a very significant step forward in reducing post-construction stormwater pollution from new development and redevelopment activities. A notable improvement is its requirement to determine compliance with water quality criteria through the new runoff reduction method. A method which encourages practices to reduce runoff volume and requires better runoff treatment, setting a baseline water quality criteria, 0.41 pounds of phosphorus runoff per acre [per year]. CBF, as noted in its written comments, has however serious concerns about the grandfather provision. We recognize the improvement created by DCR in the past week, nonetheless, projects covered by this provision together with the time limits on approved design criteria provision, which have been moved around in this current proposal [are of concern]. Those projects will now have up to 2024 or 13 years, as long as that, within which they do not need to comply with the new criteria. During this long period of time which is really unprecedented in the law as reflected in our written comments, cover projects will be allowed to avoid the new requirements	The department is waiting for further regulatory clarification from EPA on this subject for future consideration. At this time we understand that we are being more restrictive than the EPA as well as more restrictive than the Commonwealth's current administration of the permit. So we offer that we have tightened timelines up by virtue of the language that has been adopted by the board. When the federal regulations change, if it is found to be required, Virginia will explore further refinements to our approach at that time, including potential modifications to the general permit related to this topic. EPA needs to lead by example on this and we believe firmly that we are more restrictive than them in this regard. Further, although we find it quite reasonable to utilize two additional permit cycles, based on the completion

	and specifically the new baseline of 0.41 lbs. of phosphorus per acre [per year]. I think this is a big problem. It contradicts the commitments made by Virginia in its Watershed Implementation Plan, and it also contradicts what we believe was the General Assembly's clear intent when they directed the board in 2010 to convene an advisory panel to recommend new regulations complying with the Chesapeake Bay TMDL. How so, as we all know the TMDL is the total amount of pollution that a water body can receive, will we still be maintaining water quality standards. A pollution diet if you will. Its various components, the waste load allocation from point sources and the load allocation from non point sources added together must equal the TMDL number. And if pollution from one source goes up, the TMDL will be exceeded unless there is a compensating reduction of pollution from another source. So, in Virginia to meet the Bay TMDL's allocation, Virginia's WIP committed to specific strategies to reduce pollution from all various sectors. For example for the urban stormwater sector, Virginia committed to ensuring that post construction runoff will reflect, and I quote "no net increase over pre-development conditions." That's the WIP at [page] 86. So to allow for new development while maintaining a cap, Virginia's WIP also committed to the use of offsetting reductions. These do not appear in the current proposal. The grandfathering provision contradicts these commitments with respect to covered projects and in so doing contradicts the TMDL diet and the General Assembly's intent. It allows long-term runoff at levels higher than the 0.41 baseline and it fails to require grandfathered projects to offset their higher pollution limits. We understand, by virtue of a recent conversation with EPA, that EPA is also concerned by the grandfathering provision. So, as set out in our written comments, we asked the board to approve these regulations. We consider them to be a substantial improvement. But to address the problem that I've identified, we also ask the board to require compensating offsets consistent with Virginia's commitment in its Watershed Implementation Plan from any grandfathered projects. By requiring offsetting pollution reductions Virginia's commitment to permitting no net increase will be maintained, the TMDL diet will be implemented in	timetable for larger land disturbing actions as the regulations stipulate, we do offer that over 80% of permits are completed within a five-year period. Therefore, we do not have a water quality issue associated with this grandfathering. We do not believe that the WIP locks us into specific strategies in the stormwater arena for achieving necessary reductions. We will be looking into what the appropriate reduction strategies are, but in the meantime, we believe the regulation is sound and that further refinements may be considered in the future as they are determined to be necessary.

	this sector, and the board's intent will be honored.	
David Nunnally (Caroline County)	Site inspections: As I understand it, currently the stormwater general permit requires the permit holder to conduct site inspections. I would ask that this program allow the locality to fully utilize self inspections where they would be in coordination with the provisions of the Erosion and Sediment control regulations and the alternative inspection program. What that does for us is that it allows for a very efficient use of staff, of our manpower staff. And its 100% user funded. Caroline County with the impact of the economy on our budget, we have had to eliminate inspector positions. This up and down is just not feasible. We can not maintain that. We are looking for that self inspection and let us have the oversight and make sure that program works. Comprehensive stormwater management plans: It is unclear what is meant by this regulation by a comprehensive stormwater management plan. It appears that a comprehensive stormwater management plan would have to be submitted to either this board or to DCR for review and approval as well as any amendments and provisions. The challenges of this program and others on the local environmental program are enormous. I think we need every tool that we have, every strategy, and in the most efficient way. I would simply ask that we allow the localities to implement the proper measures and strategies to achieve the performance that is required in this program. Grandfathering: We would ask that this regulation allow the localities at its own volition to adopt a more stringent or a stricter timetable that works for them. We are not asking to make that a statewide requirement. Simply allow us to do that. Water Quantity: I am not quite sure what was meant in the original proposal under water quantity and the flooding section, but it states [in 4VAC50-60-66 C 2 a] that the "detention of stormwater or downstream improvements may be incorporated into the approved land-disturbing activity to meet this criteria". That language appears to be limiting to the localities. I do not think that is what was intended. You do not want to limit us to just detention or to downstream channel improvements, but you should include infiltration, retention, the whole nine yards. Or you just develop a site plan that meets the requirements from the beginning.	On the issue of site inspections, the department believes that solely having the operator inspect themselves is not conducive to administering a proper regulatory process. Localities need to have a strong inspection capability to properly advance a sound program that protects water quality. The department recognizes that additional guidance will be needed on issues such as comprehensive stormwater management plans and is committed to that process. The regulatory advisory panel and the grandfathering subcommittee had very deliberate discussions on the grandfathering provisions and the panel was not inclined to provide authority to localities to override the statewide grandfathering provisions. The department will look at the water quantity question as it develops guidance to see if this issue can be resolved in that manner.
Joe DuRant (City of Newport News)	I am Joe DuRant, Deputy City Attorney for the City of Newport News, and I wanted to address the issue of grandfathering. Grandfathering as it is	The department agrees with this comment and appreciates the support for this provision of the

	used is an attempt to accommodate the conflict between regulation and constitutional rights. In this case we are dealing with issues that are going to involve property rights and obligations of contracts under the federal and state constitutions. The reason grandfathering is written into land use statutes is for that reason to try to accommodate the necessary regulation and rights as well. I think what DCR has done in this case is to do exactly that. For that reason I would support that part of the regulations.	regulations.

All changes made in this regulatory action

Please list all changes that are being proposed and the consequences of the proposed changes. Describe new provisions and/or all changes to existing sections.

The following chart provides a summarization of the changes to the existing regulations:

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
4VAC50-60-10	Some of the definitions have been stricken and moved to 4VAC50-60-93.1.	Section 10 contains definitions that apply throughout the regulations.	Newly defined terms are added to this section, including: • "Chesapeake Bay Preservation Act Land-Disturbing Activity": This term is now utilized to describe land disturbing activities greater than or equal to 2,500 sq. ft and less than one acre that will be subject to local controls and not the construction general permit requirements. • "Chesapeake Bay watershed": Planned uses for this term have been removed and this term can likely be stricken in future revisions to this section. • "Comprehensive stormwater management plan": This term is used in sections 4VAC50-60-92 and 69; similar to the concept of a "regional (watershed wide) plan" utilized in the current regulations. • Drainage area": This term is utilized in other definitions (4VAC50-60-10 and 93.1), and in sections 4VAC-50-60-55, 65, 66, 72. • "Flood-prone area": This definition was added, as that term is now utilized in determining water quantity requirements. • "Karst area": This term is used in other definitions in section 4VAC50-60-10, including the definition for "karst features", and in section 4VAC50-60-85. • "Karst features": This term is used in other definitions in section 4VAC50-60-10, and in sections 4VAC50-60-55, 85, and 126. • "Layout": This definition was added, as that term is now utilized as one of the provisions in determining whether a project is grandfathered. • "Localized flooding": This definition was added, as that term is now utilized in determining water quantity requirements. • "Main channel": This definition was added to help clarify "flood-prone area" and "stormwater conveyance system" definitions.

			• "Natural channel design concepts": The definition was added to clarify what the engineering analysis should be based on and is utilized in several other definitions in 4VAC50-60-10. • "Natural stream": This definition is utilized in the definition of "stormwater conveyance system". • "Peak flow rate": The term is utilized in other definitions in 4VAC50-60-10 and in sections 4VAC50-60-54, 66, and 98. • "Point of discharge": This term is utilized in sections 4VAC50-60-48, 66, 69, and 95. • "Pollutant discharge": This term as amended, is intended to replace the current term "nonpoint source pollutant runoff load" or "pollutant discharge". Utilized in various sections of the greater body of VSMP regulations. • "Prior developed lands": This term is utilized in 4VAC50-60-63. • "Runoff characteristics": The term is utilized in other definitions in 4VAC50-60-10 and in sections 4VAC50-60-55 and 66 and the definition helps establish the stormwater management plan and water quantity computational requirements associated with a "land-disturbing activity". • "Runoff volume": The term is defined as the volume of water that runs off the site from a prescribed design storm. It was further amended in this final action to conform it with the changes in the use of the term "site". • "Site hydrology": The term is utilized in 4VAC50-60-66. • "Stormwater conveyance system": The term has been revised to include definitions for "manmade stormwater conveyance system", "natural stormwater conveyance system", and "restored stormwater conveyance system" into a single definition to add clarity and make the definition easier to read. • "Stormwater program administrative authority": This term is used throughout Parts II and III to define the entity administering the stormwater management program or the Virginia Stormwater Management Program. • "Virginia Stormwater Management Handbook": The term is utilized in sections 4VAC50-60-66 and 96. Amendments are made to the definitions of existing terms, including: • "Best management practice (BMP)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Channel": Revisions were made to the definition to simplify the term. • "Development": The term was amended to add clarity and to remove the requirement that residential activities result in three or more dwelling units

			to be considered development. A further revision was made to the definition to specify certain types of activities are exempt from these regulations. • "Environmental Protection Agency (EPA)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Facility or activity": The term was amended to delete the word "program", as it is already the last word represented by the letter P in "VSMP". • "Flood fringe": The term is utilized in other terms that are relevant to 4VAC50-60-66 and was revised in order to increase clarity in the water quantity requirements. • "Flooding": The term was amended to add the word "thereby" for clarity purposes. The term is utilized in definitions as well as predominately in 4VAC50-60-66. • "Floodplain": The term is utilized in other terms that are relevant to 4VAC50-60-66 and was revised in order to increase clarity in the water quantity requirements. • "Floodway": The term is utilized in other terms that are relevant to 4VAC50-60-66 and was revised in order to increase clarity in the water quantity requirements. • "Impervious cover": Revisions were made to simplify the term. • "Land disturbance": Revisions were made to abbreviate "federal Clean Water Act" as "CWA" and to include those projects meeting the criteria of a Chesapeake Bay Preservation Act Land-Disturbing Activity. • "Large construction activity": The term was revised to conform it with federal definition. • "Linear development project": The term was amended to include water and sewer lines as recognized types of linear projects. • "Local stormwater management program": The term was amended to add plan review to the list of items included in a local program, and to remove the discussion of ordinance contents. The term was also amended to clarify that once a program is approved by the board it will be considered a "qualify local program". • "Major municipal separate storm sewer outfall (or major outfall)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Municipal Separate Storm Sewer System Management Program": The term was amended to eliminate "Virginia Stormwater Management", as the term "Act" is now defined.

			• "National Pollutant Discharge Elimination System (NPDES)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Owner": The term was amended to add "or pollutants" to increase clarity regarding regulated discharge components. • "Permit-issuing authority": Upon publication the definition will be restored back to the way it is currently defined in the regulations and the Code of Virginia. The last version of the final regulation published includes changes that are being removed in this final action. • "Post-development": The term was modified to strike the hyphen so that its use throughout the regulation would be consistent. Additionally, changes were made to conform the term with the changes in the use of the term "site". • "Pre-development": The term has been amended to change the time for determining a pre-development land condition to the time of plan submittal, rather than the current time of plan approval. • "Privately owned treatment works (PVOTW)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Publicly owned treatment works (POTW)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Qualified personnel": The term was amended to add clarity and to conform the definition to federal qualifications. • "Qualifying local stormwater management program": The term was amended to add clarity and to remove references associated with a locality issuing coverage under the VSMP general permit. It also was amended to specify that local ordinances must be consistent with the VSMP general permit. • "Restored stormwater conveyance system": This definition was in the last published final version of the regulation but is not longer utilized in the recently adopted final version and therefore is being stricken. • "Site": The term was amended to add clarity and to conform with federal regulations. It was also amended to include language regarding tidal mark below which level the lands would not be considered part of the site. • "Small construction activity": The term was revised to limit the definition to those construction activities resulting in land disturbance equal to or greater than one acre. • "Stable": This definition was in the last published final version of the

			regulation but is not longer utilized in the recently adopted final version and therefore is being stricken. • "State/EPA agreement": The term was amended to clarify that the regional administrator mentioned in the definition is from EPA. • "Stormwater discharge associated with construction activity": The term has been revised to specify the discharge of stormwater runoff rather than a discharge of "pollutants in" stormwater runoff. This broadens the concept to apply to both water quality and quantity aspects of runoff. • "Stormwater management facility": The term has been revised to add clarity. • "Stormwater management plan": The term has been revised to clarify the contents of a plan. • "Stormwater management program": The term has been amended to abbreviate "Virginia Stormwater Management Act" as the "Act". • "Stormwater management standards": This definition was in the last published final version of the regulation but is not longer utilized in the recently adopted final version and therefore is being stricken. • "Stormwater pollution prevention plan": The term has been revised to better outline its components. • "Surface waters": The term was revised to make clerical changes associated with the consistent use of abbreviations. • "Unstable": This definition was in the last published final version of the regulation but is not longer utilized in the recently adopted final version and therefore is being stricken. • "Urban development area": This definition was in the last published final version of the regulation but is not longer utilized in the recently adopted final version and therefore is being stricken. • "Virginia Stormwater Management Program (VSMP)": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10 and to utilize the abbreviated terms for the federal Clean Water Act and the Virginia Stormwater Management Act. • "Virginia Stormwater Management Program (VSMP) permit": The term was amended to structurally align the title of the definition with other terms in 4VAC50-60-10. • "Water quality standards": The term was amended to utilize the abbreviated terms for the federal Clean Water Act and the Virginia Stormwater Management Act. • "Watershed": The term was amended to clarify the interaction of this definition in situations involving karst.

			The following terms have been deleted from this section but have been added to a new section in Part IIC (4VAC50-60-93.1) where they will apply only to the current criteria that grandfathered projects will be subject to. None of the terms have been modified. They include the following: “Adequate channel” “Aquatic bench” “Average land cover condition” “Bioretention basin” “Bioretention filter” “Constructed wetlands” “Development” (not deleted just defined differently) “Grassed swale” “Infiltration facility” “Nonpoint source pollutant runoff load” “Planning area” “Sand filter” “Shallow marsh” “Stormwater detention basin” “Stormwater extended detention basin” “Stormwater extended detention basin – enhanced” “Stormwater retention basin” “Stormwater retention basin I” “Stormwater retention basin II” “Stormwater retention basin III” “Vegetated filter strip” “Water quality volume” The following terms have been deleted from this section as they are no longer used: “Regional (watershed-wide) stormwater management facility” “Regional (watershed-wide) stormwater management plan” “Stable” “Stormwater management standards” “Unstable” “Urban development area” The following terms have been combined into a single definition of “stormwater conveyance system” (see above): “Manmade stormwater conveyance system”

			"Natural stormwater conveyance system" "Restored stormwater conveyance system"
4VAC50-60-20		This section sets out the overall purposes of the Virginia Stormwater Management Program (VSMP) Permits regulations.	Changes made to this section include a listing of the elements of the stormwater regulations found in this chapter including the board's procedures for the authorization of a qualifying local program, the board's procedures for approving the administration of a local stormwater management program by an authorized qualifying local program, board and department oversight authorities for an authorized qualifying local program, the board's procedures for utilization by the department in administering the Virginia Stormwater Management Program in localities where no qualifying local program is authorized, and the required technical criteria for stormwater management for land-disturbing activities. Revisions made to this section more closely align the purpose of this section with the Code of Virginia and Parts II and III of these regulations.
4VAC50-60-30		This section lists the entities and projects that are subject to the Board's regulations pursuant to the Code of Virginia.	Clarifying language was added specifying that the board's regulations apply to the department in administration of the Virginia Stormwater Management Program, to every MS4 program, and to every locality that administers a local stormwater management program. Language is also added to note that some land disturbing activities are specifically exempted from the Board's regulations by the Code of Virginia. Changes made to this section add clarity to the applicability of these regulations.
4VAC50-60-40		The current language simply states that Part II specifies the technical criteria for every stormwater management program and land disturbing activity.	Greater explanatory language is added to set forth the board's authority for the requirements of Part II under the Virginia Stormwater Management Act. Revisions made to this section more closely align the purpose of this section with the Code of Virginia and Parts II and III of these regulations.
	4VAC50-60-45	This is a new section outlining the implementation date for these new technical criteria.	This new section clearly states the board's intended implementation timeframe for the new technical criteria. The regulations will not be implemented until such time as a VSMP General Permit for Discharges of Stormwater from Construction Activities is issued that incorporates the updated criteria.
	4VAC50-60-46	This is a new section outlining the general objectives of Part II.	The language in this section sets forth the goals and general objectives of Part II, and also specifies that all control measures must be employed in a manner which minimizes impacts on receiving state waters. More specific requirements were set forth in later sections within Part II.
	4VAC50-60-47	This is a new section that speaks to the applicability of other laws and regulations..	This language clarifies that nothing in these regulations limits the applicability of other laws and regulations (not just the Erosion and Sediment Control Law and Regulations), nor do they limit the ability of other agencies or local governments to impose more stringent requirements as allowed by law. Separately setting this information out in its own section was intended to increase clarity concerning the interaction of these regulations and other laws, regulations, and authorities.

	4VAC50-60-47.1	This is a new section that specifies time limits on the applicability of approved design criteria.	This language provides additional specified time to complete construction for certain land-disturbing activities. Land disturbing activities that have received general permit coverage shall remain subject to the technical criteria in place at the time of initial permit coverage and shall remain subject to those criteria for an additional two permit cycles as long as permit coverage is maintained. Any portions of the project not completed after the additional two permit cycles have passed shall become subject to new technical criteria. The provisions in this section are more stringent than the current operating practices of the state.
	4VAC50-60-48	This is a new section that establishes the criteria by which a project may be considered grandfathered from the new technical criteria.	This section provides exemptions from having to meet the new technical criteria to certain projects provided they meet specified requirements. Subsection A allows any land-disturbing activity that has received local approval of a valid proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any equivalent document, prior to July 1, 2012, to continue to meet the existing technical criteria until 2019. Any portions of the project not completed by 2019 will be subject to new technical criteria. Subsection B specifies that locality, state, or federal projects which have had funds obligated to them prior to July 1, 2012, will be subject to the existing technical criteria. Any portions of the project not completed by 2019 will be subject to new technical criteria. Subsection D contains grandfathering provisions applicable to projects which have received governmental bonding or public financing. Finally, subsection E allows an operator to construct to a more stringent standard at their discretion. The revisions to this section add greater clarity and ease of understanding for the regulated public and still ensure that projects that qualify for grandfathering do not need to redesign to changing standards which would cause hardships.
4VAC50-60-50		The current section sets forth general requirements related to Part II of the regulations, including measurement points, design storms, assumptions to be made in computations, requirements for compliance with other applicable regulations, and other requirements.	This section is deleted. Most of the provisions of the current section have been incorporated into other sections of the regulations where similar provisions are located.
	4VAC50-60-51	This is a new section that outlines the requirements for a Chesapeake Bay Preservation Act land-disturbing activity.	Previously projects greater than 2,500 square feet to less than 1 acre in Chesapeake Bay Preservation Act jurisdictions were considered “small construction activities” and were regulated as such. This section removes the requirement that small sites (greater than 2,500 square feet to less than 1 acre) in Chesapeake Bay Preservation Act jurisdictions must receive general permit coverage. A Chesapeake Bay Preservation Act land-disturbing activity must meet the specified provisions of these regulations, but are now not required to receive coverage under the General Permit for Discharges of Stormwater from

			Construction Activities. These activities are still required to meet the water quality and water quantity provisions in sections 4VAC50-60-63 and 66 as well as other applicable standards.
	4VAC50-60-53	This is a new section that outlines the applicability of Part II A.	New language has been added to this section informing regulated entities that the provisions of Part IIA are applicable to all regulated land-disturbing activities.
	4VAC50-60-54	This is a new section that sets out stormwater pollution prevention plan requirements.	This section details all the requirements of a stormwater pollution prevention plan (SWPPP). A stormwater pollution prevention plan must include: an approved erosion and sediment control plan, an approved stormwater management plan; and a pollution prevention plan. The SWPPP must include any additional control measures that may be required as a result of a State Water Control Board approved TMDL (Total Maximum Daily Load). Additionally, the SWPPP must address the requirements of the federal effluent limitation guidelines which are mainly additional erosion and sediment control measures utilized during construction. The SWPPP must also be amended as needed and be available for review either onsite or have notice of where it may be reviewed posted onsite. The federal effluent limitation guidelines were adopted by the U.S. Environmental Protection Agency early last year. The state must adopt the same regulations this summer.
	4VAC50-60-55	This is a new section that contains information on stormwater management plans.	This section outlines the requirements for and elements of a stormwater management plan. The section specifies that a stormwater management plan must be implemented as approved, shall apply to the entire land-disturbing activity, and shall consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff. The section also details the components required to be in a plan for it to be deemed a complete. The section contains requirements concerning the submittal of construction record drawings. This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
	4VAC50-60-56	This is a new section that contains information on pollution prevention plans.	This section details the components required to be in a pollution prevention plan and requires that such plan be implemented during construction. The prevention measures must detail the design, installation, implementation, and maintenance of effective prevention measures. This section also prohibits the discharge from dewatering activities unless managed by appropriate controls. This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
	4VAC50-60-57	This is a new section that outlines the process for requesting an exception from specified postconstruction	This section explains how an exception to the requirements of Part IIB or IIC may be requested. A request for an exception to Part IIB or Part IIC may be submitted in writing to the stormwater program administrative authority. The

		technical criteria	reason for requesting the exception must be included. It is stated that an exception to the requirement for the land disturbing activity to receive general permit coverage will not be granted. This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
	4VAC50-60-58	This is a new section that outlines the responsibility for long-term maintenance of permanent stormwater management facilities.	This section addresses the issue of long term maintenance. A recorded instrument (maintenance agreement or similar document) must be submitted to the stormwater program administrative authority. The agreement must be in accordance with the requirements in section 4VAC50-60-112. This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
	4VAC50-60-59	This is a new section that speaks to applying for VSMP coverage.	This section requires that the operator for a land disturbing activity must submit a complete and accurate registration statement to the stormwater program administrative authority. This section was included in the regulations to ensure that the requirements to receive and maintain general permit coverage were clearly stated for regulated projects.
4VAC50-60-60		This existing section sets forth the water quality requirements for land disturbing activities. Compliance with those requirements may be met by employing either the technology-based or the performance-based criteria. Both criteria utilize BMPs contained in Table 1 within the section for compliance, although other BMPs may be allowed at the discretion of the local program administrator or the Department. The performance-based criteria is conducted by comparing the calculated post-development pollutant (phosphorus) load to the calculated pre-development load based on the average land cover condition or existing site conditions. The average land cover condition equates to 16% impervious cover on the site, or a loading of .45 lbs. per acre per year of phosphorus. Localities do have the ability to establish other values (and thus higher	This section is deleted in its entirety. New water quality criteria and compliance methods are established in 4VAC50-60-63 and 4VAC50-60-65 (both discussed below).

		or lower loadings) for the average land cover condition based on an actual calculation of conditions within their jurisdictions. Required reductions are achieved through implementation of BMPs contained in the existing Table 1 associated with this section. Application of the performance-based method involves the evaluation of 4 situations set forth in subsection B and results in a requirement to reduce pollutant loadings. This requirement can be no required reduction for those sites where the post-developed condition will not exceed the average land cover condition. For sites where the pre-developed condition was less than the average land cover condition, and the post-developed condition exceeds that level, it is required that the post-developed pollutant discharge not exceed the pollutant discharge based on the average land cover condition (or .45, if no other level has been established). Thirdly, for sites where both the pre-development and post-development condition exceed the average land cover condition (typically redevelopment scenarios vs. development on greenfields for the first two situations), it is required that the post-development pollutant loading not exceed the pollutant discharge based on existing conditions less 10%, or the pollutant loading based on the average land cover condition, whichever is greater (in summary, the load must be reduced to 10% below the pre-redevelopment loading, but in no case	

		would be required to be less than .45 lbs. per acre per year of phosphorus, unless a locality has established a different land cover value). Finally, for sites that are already treated by BMPs prior to development, it is required that the post-development pollutant loading not exceed the pre-development pollutant loading. The Technology-Based criteria is also available for use. This criteria requires that a BMP be selected from Table 1 utilizing the percent impervious cover of the site, and using it to treat the post-developed stormwater runoff from the impervious cover on the site.	
	4VAC50-60-62	This is a new section that speaks to the applicability of Part II B.	This section establishes that the minimum technical criteria in this sub-Part are to be employed by a state agency in accordance with an implementation schedule set by the board, or by a stormwater program administrative authority that has been approved by the board, to protect the quality and quantity of state waters from the potential harm of unmanaged stormwater runoff resulting from land-disturbing activities.
	4VAC50-60-63	This is a new section that speaks to water quality design requirements. Today's strategies that are being replaced are in 4VAC50-60-60.	The water quality design standards have been developed with a sound scientific basis behind the standards. The standards are now based on scientific studies relating to the impervious cover and water quality. Research has established that as impervious cover in a watershed increases, stream stability is often reduced, habitat is lost, water quality becomes degraded, and biological diversity decreases largely due to stormwater runoff. The water quality standards for new development projects shall not exceed 0.41 pounds of phosphorus per acre per year. In order to be protective of local streams and local water quality a water quality design standard that equates to an impervious cover of ten percent was selected (the 0.41 standard represents approximately 10% impervious cover). It is believed that this design standard will keep the runoff from construction projects from causing or contributing to the impairment of water quality in both local receiving streams and those downstream. The water quality standards for development on prior developed lands are as

			follows: 1) On sites disturbing greater than or equal to one acre that result in no net increase in impervious cover, the total phosphorus load must be reduced by at least 20% below the predevelopment total phosphorus load. 2) On sites disturbing less than one acre that result in no net increase in impervious cover, the total phosphorus load must be reduced by at least 10% below the predevelopment total phosphorus load. 3) On sites that result in a net increase in impervious cover over the predevelopment condition, the design criteria for new development shall be applied to the increased impervious area. Depending on the area of disturbance, criteria mentioned above will be applied to the remainder of the site. 4) Linear development projects may choose to use the new development standard or reduce the total phosphorus load by at least 20% below the predevelopment total phosphorus load. 5) Unless a more stringent standard has been developed by a local stormwater management program, no development on prior developed lands shall be required to reduce the total phosphorus load below the new development standard. Additional language stating that the department will review the water quality design standards upon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan has been added.
	4VAC50-60-65	This is a new section that outlines water quality compliance strategies. Today's strategies that are being replaced are in 4VAC50-60-60.	Compliance with the water quality criteria contained in 4VAC50-60-63 is determined by utilizing the Virginia Runoff Reduction Method. The Method seeks to reduce both runoff and pollutants from the site. Similar to the current approach, compliance is ultimately achieved through the implementation of BMPs on the site. The Method allows for an expanded and innovative set of practices. The list of available BMPs will continue to be augmented through the further development of the Virginia Stormwater BMP Clearinghouse website. The Clearinghouse is staffed by the Department (and Virginia Tech's Virginia Water Resource Research Center) and an advisory committee on a continual basis, and allows for the submission and approval of new designs and efficiencies for stormwater BMPs. Overall, this was intended to allow greater flexibility for developers and better site planning and design. The section specifies that: • Compliance with the water quality criteria shall be determined utilizing the Virginia Runoff Reduction Method.

			• BMPs listed in regulations in this section are approved for use as necessary to effectively reduce the phosphorus load and runoff volume in accordance with the Virginia Runoff Reduction Method. Design specifications for all approved BMPs can be found on the Virginia Stormwater BMP Clearinghouse website. Other approved BMPs available on this website may also be utilized to achieve compliance. • A locality may establish use limitations on specific BMPs (such as wet ponds or certain infiltration practices) upon written justification to the Department. • The names of the currently approved best management practices are presented in a list format. Additional design parameters for each BMP are available on the Virginia Stormwater BMP Clearinghouse. • Offsite alternatives where allowed (as specified in section 4VAC50-60-69) may be utilized to meet the technical standards. • The section includes protocols regarding the application of design criteria to each drainage area of the site.
	4VAC50-60-66	This is a new section that outlines water quantity control strategies and calculations. Today's water quantity control procedures are found in 4VAC50-60-70.	This section specifies minimum standards and procedures to address channel protection and flood protection. The overall water quantity requirements are intended to meet the mandate of §10.1-603.4(7), which requires the replication, as nearly as practicable, of the existing predevelopment runoff characteristics and site hydrology, or improvement upon the contributing share of the existing predevelopment runoff characteristics and site hydrology if stream channel erosion or localized flooding is an existing predevelopment condition. The language also specifies that compliance with the minimum standards of this section shall be deemed to satisfy the requirements of minimum standard 19 of the Virginia Erosion and Sediment Control Regulations. Channel protection shall be achieved through one of the following: o Stormwater released into a man-made conveyance system from the two-year 24-hour storm shall be done without causing erosion of the system. o Stormwater released into a restored stormwater conveyance system, in combination with other existing stormwater runoff, shall not exceed the design parameters of the restored system that is functioning in accordance with the design objectives. o Stormwater released to a natural stormwater conveyance shall be discharged at the maximum peak flow rate from the one-year 24-hour storm as calculated from the energy balance equation or another board approved methodology that is demonstrated to achieve equivalent

			results. To moderate this calculation, there is an improvement factor inputted into the equation (0.8 for sites > 1 acre or 0.9 for sites < 1 acre). The use of the energy balance equation is also an option when discharging to either a manmade stormwater conveyance system or a restored conveyance system. For channel protection, the limits of analysis are o Based on land area, the site's contributing drainage area is less than or equal to 1.0% of the total watershed area; or o Based on peak flow rate, the site's peak flow rate from the one-year 24-hour storm is less than or equal to 1.0% of the existing peak flow rate from the one-year 24-hour storm prior to the implementation of any stormwater quantity control measures. Flood protection shall be achieved through one of the following: o When the system does not currently experience localized flooding, the post-development peak flow rate from the 10-year 24-hour storm is confined within the stormwater conveyance system. o When the system does currently experience localized flooding, the following options are available: • The post-development peak flow rate from the 10-year 24-hour storm is confined within the stormwater conveyance; or • The post-development peak flow rate from the 10-year 24-hour storm is released at a rate that is less than the predevelopment peak flow rate from the 10-year 24-hour storm. If this approach is utilized to comply with the flood protection criteria, downstream analysis within the limits established below shall be conducted. For flood protection, the limits of analysis are: o The site's contributing drainage area is less than or equal to one percent of the total watershed area draining to a point of analysis in the downstream stormwater conveyance system; o Based on peak flow rate, the site's peak flow rate from the 10-year 24-hour storm event is less than or equal to 1.0% of the existing peak flow rate from the 10-year 24-hour storm event prior to the implementation of any stormwater quantity control measures; or o The stormwater conveyance system enters a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality.
	4VAC50-60-69	This is a new section that outlines	Chapter 523 of the 2011 Virginia Acts of Assembly (SB1099) updated offsite

		offsite compliance options. Offsite options do not currently exist in the regulations.	options in meeting the water quality requirements of these regulations. This section complies with that legislation. The strategies advanced in this section are critical to the success of the stormwater management program as it provides cost-effective strategies for the development community while still achieving necessary water quality protection. This section provides for the following: Subsection A specifies the options a stormwater program administrative authority may allow an operator to use which include: o COMPREHENSIVE PLAN: a local comprehensive watershed stormwater management plan adopted for the local watershed within which a project is located pursuant to 4VAC50-60-92 may be utilized to meet water quality or water quantity requirements. o LOCAL PRO-RATA: Specifies that a locality may use a pro rata fee in accordance with § 15.2-2243 or similar local funding mechanism to achieve offsite the water quality and quantity reductions required. Participants will pay a locally established fee sufficient to fund improvements necessary to adequately achieve those requirements. o NUTRIENT OFFSET: Incorporates the offset option passed by the 2009 General Assembly (HB2168) for water quality and is to be applied in accordance with the stipulations set out in the Code of Virginia (§10.1-603.8:1). o DEVELOPER SITE: The option specifies that water quality controls must be located within the same HUC or within the upstream HUCs in the local watershed that the land disturbing activity directly discharges to. o Any other offsite options approved by an applicable state agency or state board may be utilized. Subsection B specifies that an operator shall be allowed to utilized offsite compliance options under any of the following conditions: o Less than 5 acres of land will be disturbed; o The postconstruction phosphorus standard is less than 10 pounds per year; or o At least 75% of the required phosphorus nutrient reductions are achieved on-site. If the operator demonstrates to the satisfaction of the stormwater program administrative authority that 75% of the required reductions can not be practicably met onsite, then the required phosphorus reductions may achieved through the use of offsite

			compliance options. Subsection C specifies the situations where offsite options will not be allowed. Offsite options must achieve the necessary nutrient reductions prior to the commencement of the operator's land disturbing activity. Additionally, offsite options shall not be allowed in contravention of local water quality-based limitations.
4VAC50-60-70		This existing section sets forth requirements for channel protection. A primary requirement of the section is compliance with MS19 of the Virginia Erosion and Sediment Control Regulations. It also requires that properties and receiving waterways downstream of any land disturbing activity be protected from erosion and damage due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in the section.	This section is deleted in its entirety. New water quantity criteria, including channel protection criteria, are established in 4VAC50-60-66 (discussed above). Requirements for compliance with the Virginia Erosion and Sediment Control Law and Regulations are relocated to new section 56 (discussed above).
	4VAC50-60-72	This is a new section that outlines design storms and hydrologic methods. Current design storm specifications are contained in section 4VAC50-60-40(B), and are defined as either a 24 hour storm using the rainfall distribution recommended by the U.S. Dept. of Agriculture's Natural Resources Conservation Service (NRCS) when using NRCS methods or as the storm of critical duration that produces the greatest required storage volume at the site when using a design method such as the Modified Rational Method.	This section outlines design storm requirements. Prescribed design storms are the 1, 2, and 10 year 24 hour storms using the site-specific rainfall precipitation frequency data recommended by the US National Oceanic and Atmospheric Administration (NOAA) Atlas 14. NRCS synthetic 24 hour rainfall distribution and models, hydrologic and hydraulic methods developed by the US Army Corps of Engineers, or other standard methods shall be used to conduct any analyses. The Rational Method and Modified Rational Method may be utilized with the approval of the local program; however, use of these methods is proposed to be limited to drainage areas of 200 acres or less, as it is believed that this is the maximum drainage area for which these methods can be reliably used.
	4VAC50-60-74	This is a new section that encourages stormwater harvesting. The current regulations contain no information	This section notes the board's encouragement of (but does not impose requirements for) stormwater harvesting to the extent that such uses of captured stormwater is permitted by other federal, state, and local regulations.

		regarding stormwater harvesting.	This is consistent with section 10.1-603.4(9), which was added to the Code of Virginia following the 2008 General Assembly.
	4VAC50-60-76	This is a new section that speaks to linear development projects. The current regulations do not specifically address linear development projects.	This section specifically explains that unless exempt pursuant to section 10.1-603.8(B), linear development projects must address stormwater runoff in accordance with the VSMP regulations.
4VAC50-60-80		The existing section contains provisions related to flood protection. A specific requirement is that the 10-year post-developed peak rate of runoff from the development site shall not exceed the 10-year pre-developed peak rate of runoff.	This section is deleted in its entirety. New water quality criteria for all sites, including flood protection criteria, are established in 4VAC50-60-66 (discussed above).
	4VAC50-60-85	This is a new section that contains stormwater management impoundment structures or facilities requirements. Today's regulations contain several provisions related to construction of stormwater management impoundment structures and facilities that are located in 4VAC50-60-50(D), (E), and (J).	This section explains the design and placement requirements for permanent stormwater management facilities. There are requirements that stormwater management wet ponds and extended detention ponds not subject to the Virginia Impounding Structure Regulations be engineered for structural integrity for the 100-year storm event, and that prior to the construction of stormwater management impoundment structures or facilities in a karst area a study of the geology and hydrology must be completed.
4VAC50-60-90		This section describes the requirements for regional (watershed-wide) stormwater management plans, which enable localities and state agencies to treat multiple projects within a watershed through singular, or fewer, best management practices rather than addressing stormwater management on each individual site.	This section is deleted in its entirety. A new section describing and establishing requirements for comprehensive stormwater management plans is inserted at 4VAC50-60-92 (described below).
	4VAC50-60-92	This is a new section that speaks to comprehensive stormwater management plans. Today's regulations contain a description of a regional (watershed-wide) stormwater management plan in 4VAC50-60-90 (repealed as described above).	This section specifies that a local stormwater management program may develop comprehensive stormwater management plans to be approved by the department that meet the water quality objectives, quantity objectives, or both. The plans need to ensure that offsite reductions equal to or greater than those that would be required on each contributing site are achieved within the same HUC or within another locally designated watershed. Pertaining to water quantity objectives, the plan may provide for implementation of a combination of channel improvement, stormwater detention, or other measures that are satisfactory to the local stormwater management program to prevent downstream erosion and flooding.

			The language also stipulates that if the land use assumptions upon which the plan was based change or if any other amendments are deemed necessary by the local stormwater management program, such program shall provide plan amendments to the department for review and approval. The section also requires the local stormwater management program to document nutrient reductions accredited to the BMPs specified in the plan. Additionally, it specifies that state and federal agencies may develop comprehensive stormwater management plans, and may participate in locality-developed comprehensive stormwater management plans where practicable and permitted by the local stormwater management program.
	4VAC50-60-93.1	This is a new section that was created to include the relevant existing definitions into Part II C, the "grandfathered" projects section	This section contains definitions related to Part II C. These definitions have not been revised from the existing definitions in 4VAC50-60-10 (where they are being stricken); they have just been added to this new section. The following definitions have been added (moved from 4VAC50-60-10): "adequate channel", "aquatic bench", "average land cover condition", "bioretention basin", "bioretention filter", "constructed wetlands". "development", "grassed swale", "infiltration facility", "nonpoint source pollutant runoff load", "planning area", "sand filter", "shallow marsh", "stormwater detention basin", "stormwater extended detention basin", "stormwater extended basin-enhanced", "stormwater retention basin", stormwater retention basin I", "stormwater retention basin II", "stormwater retention basin III", vegetated filter strip", and "water quality volume".
	4VAC50-60-94	This is a new section that was created to capture today's criteria that are being grandfathered to. The applicability of the current technical criteria is found in section 40 (repealed as described above).	This section specifies that land disturbing activities that are not subject to the technical criteria of Part II B are subject to the technical criteria of Part II C, which is composed of the sections that follow. The inclusion of grandfathering provision in new section 48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes the current technical criteria.
	4VAC50-60-95	This is a new section that was created to capture today's criteria that are being grandfathered to. The general requirements of the current regulations are found in section 50 (repealed as described above).	This section contains the general requirements of the existing regulations. The inclusion of grandfathering provision in 4VAC50-60-48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes the current technical criteria.
	4VAC50-60-96	This is a new section that was created to capture today's criteria that are being	This section contains the water quality requirements of the existing regulations. Minor amendments were made to allow use of BMPs found in 4VAC50-60-65

		grandfathered to. The water quality requirements of the current regulations are found in section 60 (repealed as described above).	and BMPs found on the Virginia Stormwater Management BMP Clearinghouse website. The inclusion of grandfathering provision in 4VAC50-60-48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes the current technical criteria.
	4VAC50-60-97	This is a new section that was created to capture today's criteria that are being grandfathered to. The stream channel erosion requirements of the existing regulations are found in section 70 (repealed as described above).	This section contains the stream channel requirements of the existing regulations. The inclusion of grandfathering provision in 4VAC50-60-48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes the current technical criteria.
	4VAC50-60-98	This is a new section that was created to capture today's criteria that are being grandfathered to. The flooding requirements of the existing regulations are found in section 80 (repealed as described above).	This section contains the flooding requirements of the existing regulations. The inclusion of grandfathering provision in 4VAC50-60-48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes the current technical criteria.
	4VAC50-60-99	This is a new section that outlines regional approaches that grandfathered projects may utilize. The current regulations allow for development of regional (watershed-wide) stormwater management plans in section 90 (repealed as described above). No other offsite options for compliance were expressly noted.	This section allows water quality and, where allowed, water quantity requirements of Part II C to be met through the offsite provisions of new sections 69 and 92. The inclusion of grandfathering provisions in 4VAC50-60-48 necessitated the retention of the current technical criteria within the regulations. Therefore, a Part II C was created that includes today's technical criteria. However, as offsite options are redefined in Parts II B (including comprehensive stormwater management plans), and as existing regional stormwater management plans will cease to exist, it was determined appropriate to allow the provisions of Part II B applicable to offsite compliance to apply to Part II C as well.
4VAC50-60-100		This existing section specified the applicability to the existing Part III.	This section specifies the applicability of the new Part III. The language has been revised to address additional authorities and requirements in the Virginia Stormwater Management Act. Under the Act, the board is required to establish procedures for the authorization of a qualifying local program and for the administration of a local stormwater management program by an authorized qualifying local program. The board is also required to establish the board and department oversight authorities for an authorized qualifying local program and the procedures utilized by the department in administering the Virginia Stormwater Management Program in localities where no qualifying local program exists.
	4VAC50-60-102	This is a new section that explains the authority the board has to approve a local stormwater management program in accordance with the Virginia	This new section explains the authority under which the board authorizes a locality to administer a qualifying local program. If the board determines that a locality has adopted a local stormwater management program in accordance with § 10.1-603.2 et seq. of the Code of Virginia, and the board deems the

		Stormwater Management Act as a qualifying local program.	program consistent with the Act, then the board may authorized a locality to administer a qualifying local program. The board must establish standards and procedures by which to provide such authorization in accordance with § 10.1-603.4.
	4VAC50-60-103	This is a new section that speaks to requirements for Chesapeake Bay Act land-disturbing activities. The current regulations require smaller sites (2,500 square feet to less than 1 acre) in Chesapeake Bay Preservation Act jurisdictions to meet federal permitting requirements. 4VAC50-60-51 of the new regulations no longer requires these sites to receive general permit coverage although they are still required to meet state technical criteria requirements. This section explains the stormwater program administrative authorities responsibilities in approving and permitting these sites.	This section has been included to clearly explain the administrative requirements of a stormwater program administrative authority concerning Chesapeake Bay Preservation Act land disturbing activities. This section requires that a permit be issued to the land disturbing activity (although the activity does not have to receive general permit coverage), all program requirements in 4VAC-50-60-104 be applicable, plan review requirements in 4VAC-50-60-108 (except subsection D) be met, long-term maintenance requirements in 4VAC-50-60-112 be met, inspection requirements in 4VAC-50-60-114 (except subsection A3 and A4) be met, enforcement components in 4VAC-50-60-116 be applicable, hearing requirements of 4VAC-50-60-118 be applicable, exception conditions in 4VAC-50-60-122 be met (except subsection C), and the reporting and record keeping requirements in 4VAC-50-60-126 be met (except subsection B3). Local stormwater management programs will be required to adopt ordinances that incorporate the components of this section
	4VAC50-60-104	This is a new section that contains criteria for programs operated by a stormwater program administrative authority. It contains a number of the provisions contained in today's 4VAC50-60-110 that requires that local programs comply with the various requirements of Part II of the regulations, states that more stringent criteria established by localities may be considered by the Department in its review of state projects within that locality, and explains that nothing in Part III is to be construed as giving regulatory authority over state projects to a locality.	This section explains that all stormwater program administrative authorities must require compliance with the provisions of Part II of the regulations, states that more stringent criteria established by localities will be considered by the Department in its review of state projects within that locality, explains that nothing in Part III is to be construed as giving regulatory authority over state or federal projects to a locality, and allows a stormwater program administrative authority to require the submission of reasonable bond or other financial surety.
	4VAC50-60-106	This is a new section that contains additional requirements for local stormwater management programs.	This section requires local stormwater management programs to adopt ordinances that ensure compliance with the requirements set forth in 4VAC50-60-460L. Local stormwater management programs are also required to adopt ordinances at least as stringent as the provisions contained in the VMSP

			general construction permit.
	4VAC50-60-108	This is a new section that contains stormwater management plan review requirements. Current requirements regarding stormwater management plan review by locality-run stormwater management plans are contained in 4VAC50-60-130 (discussed below).	This section sets forth specific requirements for review of stormwater management plans by stormwater program administrative authorities. This includes the review procedures to be employed by the administrative authorities. Additionally, the section contains procedures for modifying a previously-approved stormwater management plan (the current regulations simply state that no changes may be made to an approved plan without review and written approval by the locality). A stormwater program administrative authority is prohibited from providing authorization to begin land disturbance until provided evidence of VSMP permit coverage. Finally, stormwater program administrative authorities must require the submission of construction record drawings for certain permanent stormwater management facilities in accordance with 4VAC50-60-55.
4VAC50-60-110		This existing section sets forth the technical criteria for local programs under the current regulations. Requirements include compliance with the existing technical criteria contained in the various sections of Part II.	This section is deleted in its entirety. The requirement for compliance with the technical criteria contained in Part II is relocated to new section 4VAC50-60-104.
	4VAC50-60-112	This is a new section that contains requirements for the long-term maintenance of permanent stormwater management facilities. Today's regulations speak to long-term maintenance and inspections in 4VAC50-60-150 (discussed below).	This section requires that stormwater program administrative authorities require provisions to ensure the long-term responsibility for and maintenance of stormwater management facilities. The administrative authority must require an instrument recorded in local land records prior to permit termination (at the latest) that has been submitted to the administrative authority for review and approval prior to the approval of the stormwater management plan, be stated to run with the land, provide for all necessary access to the property for the purposes of maintenance and regulatory inspections, provide for inspection and maintenance and the submission of inspection and maintenance reports to the stormwater program administrative authority and be enforceable by all appropriate governmental parties. For stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot, recorded instruments may not be required to be provided, at the discretion of the administrative authority.
	4VAC50-60-114	This is a new section that contains inspection requirements. Current requirements for inspections both during and post-construction are contained in section 4VAC50-60-150. These requirements are for stormwater management facilities to be made on a	This section sets forth requirements for site inspections by stormwater program administrative authorities to ensure compliance with the board's regulations and to ensure the long-term functionality of stormwater management BMPs. First, the section requires inspections for compliance with the local ordinances during construction. The inspections will include ensuring compliance with an approved erosion and sediment control plan an approved stormwater management plan, the development, updating, and implementation of a

		regular basis during construction, and for post-construction inspections to be made on a regular basis or according to an alternative inspection program developed by the local program.	pollution prevention plan, and the development and implementation of any additional control measures necessary to address a TMDL. Each stormwater program administrative authority is required to establish an inspection program that ensures facilities are being adequately maintained as designed and shall be approved by the board; ensure that each facility is inspected at least once every five years; and be documented by records. In some instances, inspection reports provided by the owner of a stormwater management facility may be utilized by the stormwater program administrative authority as a component of their inspection program. Additionally, the stormwater program administrative authority must develop a strategy for addressing maintenance of stormwater facilities designed to treat stormwater runoff primarily if recorded instruments are not required.
	4VAC50-60-116	This is a new section that contains enforcement requirements. The current regulations do not include provisions for enforcement by a stormwater program administrative authority.	Enforcement under the Virginia Stormwater Management Act and these regulations is governed specifically by statute and this section lists all potential remedies available to a stormwater program administrative authority under the Act, providing administrative authorities with one source to find all of the authorities that are scattered in various places in the Act. In addition, this section establishes a recommended schedule of civil penalties for violations, which is required to be established by the Board in accordance with §10.1-603.14(A) of the Code of Virginia. This section also states the board's ability to enforce the provisions of the Act and its regulations as well as the department's ability to terminate a general construction permit and require application for an individual permit.
	4VAC50-60-118	This is a new section contains authorities regarding hearings. The current regulations do not mention the availability of hearings, although requirements for hearings are established in the Stormwater Management Act.	This new section observes the requirements for hearings contained within the Virginia Stormwater Management Act.
4VAC50-60-120		This section sets forth the requirements for a stormwater management ordinance that could be adopted by a locality and sets out the procedures by which the Department will periodically review a locality-operated stormwater management program.	This section is deleted in its entirety. The requirement for a locality to adopt an ordinance has been relocated to 4VAC50-60-106, and procedures for Department review of a qualifying local program are contained in Part III B.
	4VAC50-60-122	This is a new section that contains project exception requirements. Today's regulations in 4VAC50-60-140	This section allows for an exception to be administratively granted to the technical criteria contained in Part II. Exceptions may be granted provided that certain criteria are met (these criteria are refined from those currently included

		(discussed below) allows for exceptions to be granted from the requirements of the VSMP regulations.	in 4VAC50-60-140), and a record of all exceptions granted is to be maintained and reported. A provision is included that prohibits a stormwater program administrative authority from allowing the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse website. All offsite compliance options must be considered and found not available before an exception to the phosphorus reduction requirements will be allowed.
	4VAC50-60-126	This is a new section that contains reporting and record keeping requirements. Current sections 4VAC50-60-120 and 4VAC50-60-150 contain requirements for the keeping of reviewed plans and stormwater management facility inspection reports by locality-operated stormwater management programs.	This section requires local stormwater management programs to report information pertaining to stormwater management facilities installed in their jurisdictions, inspections made during the fiscal year, number of enforcement actions undertaken, and number of exceptions granted. The section also requires project files to be maintained for three years, inspection reports to be maintained for at least five years, and construction record drawings for stormwater management facilities to be maintained in perpetuity, or until a stormwater management facility is removed. All registration statements submitted in accordance with 4VAC50-60-59 must be documented and retained for at least three years from the date of project completion or permit termination.
4VAC50-60-130		This existing section sets forth the requirements for stormwater management plans and the requirements for stormwater management plan review by localities administering stormwater management plans under the current regulations.	This section is deleted in its entirety. Requirements for stormwater management plans and for stormwater management plan reviews are relocated and refined in 4VAC50-60-55 and 108 (discussed above).
4VAC50-60-140		This section sets forth the procedures by which a locality-operated stormwater management program may issue an exception to the requirements of the regulations.	This section is deleted in its entirety. The exceptions process is refined and relocated to section 4VAC50-60-122 (discussed above).
	4VAC50-60-142	This is a new section that sets out the authority and applicability of Part III B. Although the Department does not currently review locally operated stormwater management programs (except for those programs administered to achieve compliance with the requirements of an MS4 permit), criteria for review of a local program by the Department in today's regulations is contained in section 4VAC50-60-120(B).	This section notes that Part III B (sections 4VAC50-60-142 through 4VAC50-60-144) specifies the criteria that will be utilized by the Department in reviewing a locality's administration of a local stormwater management program pursuant to § 10.1-603.12 of the Code of Virginia.

	4VAC50-60-144	This is a new section that outlines local stormwater management program review requirements. Although the Department does not currently review locally operated stormwater management programs (except for those programs administered to achieve compliance with the requirements of an MS4 permit), criteria for review of a local program by the Department is contained in section 4VAC50-60-120(B). Such review is to consist of a personal interview between Department staff and the local program administrator or his designee, a review of local ordinances and other documents, a review of plans approved by the local program, an inspection of regulated activities within the jurisdiction, and a review of enforcement actions undertaken by the locality.	This section notes that all local stormwater management programs will be reviewed at least once every five years, as required by the Stormwater Management Act. Evaluations shall be conducted according to the same criteria contained in today's 4VAC50-60-120(B), with an addition of a review of the funding and staffing plan developed in accordance with 4VAC50-60-148. The section additionally describes the process by which the board will allow for corrective action to be taken by any local stormwater management program for which deficiencies are noted.
	4VAC50-60-146	This is a new section that sets out the authority and applicability of Part III C. The current regulations were adopted prior to the complete adoption of the Stormwater Management Act by the General Assembly, which established the requirement for certain localities to adopt local stormwater management programs and for others to have the option to adopt local stormwater management programs. The Act likewise requires the Board to establish procedures for authorization of local stormwater management programs. As these requirements were not in place in the Code of Virginia at the time of the adoption of the current regulations, today's regulations do not include	This section notes that Part III C (sections 4VAC50-60-146 through 4VAC50-60-148) establishes the procedures by which the Board will authorize a locality to administer a local stormwater management program.

		authorization procedures.	
	4VAC50-60-148	This is a new section that contains local stormwater management program administrative requirements.	This section explains the administrative requirements of a local stormwater management program. Administrative requirements include identification of the authorities accepting registration statements, completing plan reviews, plan approvals, inspection and enforcement. Localities are required to provide for the submission and approval of erosion and sediment control plans and to ensure compliance with 4VAC50-60-54, 55, and 56 as applicable. Localities are also responsible for providing for long-term inspection and maintenance of stormwater management facilities and for providing for the collection, distribution and expenditure of fees. The requirement that localities adopt ordinances is also stated.
4VAC50-60-150		This existing section describes the requirements for long-term maintenance of stormwater management facilities, as well as the requirements for inspections of facilities by a locality-operated stormwater management program both during and post-construction.	This section describes the procedure by which the board will authorize a locality to administer a local stormwater management program. A locality will first submit an application package, which will be reviewed for completeness within 30 calendar days. The board will thereafter have 120 calendar days to review the application package for compliance with the Stormwater Management Act and the VSMP regulations. Any decision will be communicated to the locality. This section also notes the timeframes for local stormwater management program adoption. Subsections (D) and (E) note the times during which localities should notify the board. Finally, the section notes that for localities where no local stormwater management program is adopted, the department will administer the responsibilities of the Act and these regulations. The department may phase in the implementation of those responsibilities over a period of time based on the criteria noted in the section.
Documents Incorporated by Reference		A number of documents useful for compliance with the regulations are currently incorporated by reference into the regulations.	One additional document has been incorporated by reference into the regulations. The document explaining the Runoff Reduction Method, entitled Virginia Runoff Reduction Method: Instructions & Documentation, March 28, 2011, has been incorporated by reference.

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

It is recognized that many of the development interests that will be affected by the regulations are small businesses. As discussed in the economic analysis completed on the proposed regulations, these regulations were developed to impose the minimum burden necessary while still allowing the board to meet its mandate under the Stormwater Management Act and for the achievement of Virginia's water quality and quantity goals. The final regulations have been modified to provide additional flexibility with the technical standards. Significant changes have been made to the offsite compliance provisions which will afford additional flexibility in achieving the water quality and quantity standards within Part II (see 4VAC50-60-69; offsite options). The primary compliance methodology, the Virginia Runoff Reduction Method, has also been designed to provide many options for compliance to site planners, many of which will reduce compliance costs. Cumulatively, as outlined above, a number of revisions were made to the final regulations that will lessen the requirements on small businesses as well as significantly reduce the costs from the proposed version while upholding the intent of the Stormwater Management Act and the requirements of the Clean Water Act. It is believed that the final regulations reflect the best methodologies available to achieve the requirements placed upon the Board by law and represent a reasonable balance between necessary water quality improvements and potential economic concerns.

Family impact

Please assess the 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.

It is not anticipated that this regulation will have a direct impact on the institution of the family or family stability. However, the improvement of water quality and control of

water quantity does have public health and safety benefits that have an indirect impact on families.