

## **Draft Final Stormwater Regulations Parts I, II, and III**

NOTE: Grey highlights represent changes made between proposed and the October 5, 2009 final version; Yellow highlights represent changes made between October 5, 2009 and December 9, 2009 versions)

Part I  
Definitions, Purpose, and Applicability

**4VAC50-60-10. Definitions.**

The following words and terms used in this chapter have the following meanings unless the context clearly indicates otherwise.

"Act" means the Virginia Stormwater Management Act, Article 1.1 (§ 10.1-603.1 et seq.) of Chapter 6 of Title 10.1 of the Code of Virginia.

"Adequate channel" means a ~~channel~~ watercourse [ ~~or wetland~~ ] that will convey the designated frequency storm event without overtopping ~~the channel bank nor its banks or~~ causing erosive damage to the ~~channel bed or banks, or overbank sections of the same.~~ [ A wetland may be considered an adequate channel provided the discharge from the designated frequency storm event does not cause erosion in the wetland. ]

"Administrator" means the Administrator of the United States Environmental Protection Agency or an authorized representative.

"Applicable standards and limitations" means all state, interstate, and federal standards and limitations to which a discharge or a related activity is subject under the Clean Water Act (CWA) (33 USC § 1251 et seq.) and the Act, including effluent limitations, water quality standards, standards of performance, toxic effluent standards or prohibitions, best management practices, and standards for sewage sludge use or disposal under §§ 301, 302, 303, 304, 306, 307, 308, 403 and 405 of CWA.

"Approval authority" means the Virginia Soil and Water Conservation Board or [ ~~their~~ its ] designee.

"Approved program" or "approved state" means a state or interstate program that has been approved or authorized by EPA under 40 CFR Part 123 (2000).

~~"Aquatic bench" means a 10 to 15 foot wide bench around the inside perimeter of a permanent pool that ranges in depth from zero to 12 inches. Vegetated with emergent plants, the bench augments pollutant removal, provides habitats, conceals trash and water level fluctuations, and enhances safety.~~

~~"Average land cover condition" means a measure of the average amount of impervious surfaces within a watershed, assumed to be 16%. Note that a locality may opt to calculate actual watershed specific values for the average land cover condition based upon 4VAC50-60-110.~~

"Average monthly discharge limitation" means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

"Average weekly discharge limitation" means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

"Best management practice (~~BMP~~)" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

~~"Bioretention basin" means a water quality BMP engineered to filter the water quality volume through an engineered planting bed, consisting of a vegetated surface layer (vegetation, mulch, ground cover), planting soil, and sand bed, and into the in-situ material.~~

~~"Bioretention filter" means a bioretention basin with the addition of a sand filter collector pipe system beneath the planting bed.~~

"Board" means the Virginia Soil and Water Conservation Board.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Channel" means a natural stream or manmade waterway watercourse with defined bed and banks that conducts continuously or periodically flowing water.

[ "Chesapeake Bay watershed" means all land areas draining to the following Virginia river basins: Potomac River Basin, James River Basin, Rappahannock River Basin, Chesapeake Bay and small coastal basins, and York River Basin. ]

"Common plan of development or sale" means a contiguous area where separate and distinct construction activities may be taking place at different times on different schedules.

~~"Constructed wetlands" means areas intentionally designed and created to emulate the water quality improvement function of wetlands for the primary purpose of removing pollutants from stormwater.~~

"Comprehensive stormwater management plan" means a plan, which may be integrated with other land use plans or regulations, that specifies how the water quality [ and components, ] quantity components [ , or both ] of stormwater are to be managed on the basis of an entire watershed or a portion thereof. The plan may also provide for the remediation of erosion, flooding, and water quality and quantity problems caused by prior development.

"Construction activity" means any clearing, grading or excavation associated with large construction activity or associated with small construction activity.

"Contiguous zone" means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone (37 FR 11906 June 15, 1972).

"Continuous discharge" means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

"Control measure" means any BMP, stormwater facility, or other method used to minimize the discharge of pollutants to state waters.

"Co-operator" means an operator ~~to~~ of a VSMP permit that is only responsible for permit conditions relating to the discharge for which it is the operator.

"Clean Water Act" or "CWA" means 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.

"CWA and regulations" means the Clean Water Act (CWA) and applicable regulations published in the Code of Federal Regulations promulgated thereunder. For the purposes of this chapter, it includes state program requirements.

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

"Department" means the Department of Conservation and Recreation.

"Development" means ~~a tract of land developed or to be developed as a unit under single ownership or unified control which is to be used for any business or industrial purpose or is to contain three or more residential dwelling units~~ land disturbance and the resulting landform associated with the construction of residential, commercial, industrial, institutional, recreation, transportation, or utility facilities or structures [ or the clearing of land for nonagricultural or nonsilvicultural purposes ].

"Direct discharge" means the discharge of a pollutant.

"Director" means the Director of the Department of Conservation and Recreation or his designee.

"Discharge," when used without qualification, means the discharge of a pollutant.

"Discharge of a pollutant" means:

1. Any addition of any pollutant or combination of pollutants to state waters from any point source; or
2. Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into surface waters from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any indirect discharger.

"Discharge Monitoring Report" or "DMR" means the form supplied by the department, or an equivalent form developed by the operator and approved by the board, for the reporting of self-monitoring results by operators.

"Draft permit" means a document indicating the board's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination is not a draft permit. A proposed permit is not a draft permit.

"Drainage area" means a land [ ~~and area,~~ ] water area [ ~~on a land-disturbing site, or both~~ ] from which runoff flows to a common [ outlet ] point.

"Effluent limitation" means any restriction imposed by the board on quantities, discharge rates, and concentrations of pollutants which are discharged from point sources into surface waters, the waters of the contiguous zone, or the ocean.

"Effluent limitations guidelines" means a regulation published by the administrator under § 304(b) of the CWA to adopt or revise effluent limitations.

"Environmental Protection Agency (~~EPA~~)" or "EPA" means the United States Environmental Protection Agency.

"Existing permit" means for the purposes of this chapter a permit issued by the permit-issuing authority and currently held by a permit applicant.

"Existing source" means any source that is not a new source or a new discharger.

"Facilities or equipment" means buildings, structures, process or production equipment or machinery that form a permanent part of a new source and that will be used in its operation, if these facilities or equipment are of such value as to represent a substantial commitment to construct. It excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding the new source or water pollution treatment for the new source.

"Facility or activity" means any VSMP point source or treatment works treating domestic sewage or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the VSMP program.

"Flood fringe" is the portion of the floodplain outside the floodway [ ~~usually associated with standing rather than flowing water, which is covered by floodwater during the 100-year discharge~~ ] [ that is usually covered with water from the 100-year storm event ] .

"Flooding" means a volume of water that is too great to be confined within the banks or walls of the stream, water body or conveyance system and that overflows onto adjacent lands, thereby causing or threatening damage.

"Floodplain" means any land area adjoining a channel, river, stream, or other water body that is susceptible to being inundated by water. It includes the floodway and flood fringe areas [ associated with the 100-year storm event ] .

"Floodway" means the channel of a river or other watercourse and the adjacent land areas, usually associated with flowing water, that must be reserved in order to discharge the [ base flood 100-year storm event ] without cumulatively increasing the water surface elevation more than one foot or as otherwise designated by the Federal Emergency Management Agency.

"General permit" means a VSMP permit authorizing a category of discharges under the CWA and the Act within a geographical area of the Commonwealth of Virginia.

~~"Grassed swale" means an earthen conveyance system which is broad and shallow with erosion resistant grasses and check dams, engineered to remove pollutants from stormwater runoff by filtration through grass and infiltration into the soil.~~

"Hazardous substance" means any substance designated under the Code of Virginia or 40 CFR Part 116 (2000) pursuant to § 311 of the CWA.

"Hydrologic Unit Code" or "HUC" means a watershed unit established in the most recent version of Virginia's 6th Order National Watershed Boundary Dataset.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a VPDES or VSMP permit (other than the VSMP permit for discharges from the municipal separate storm sewer), discharges resulting from fire fighting activities, and discharges identified by and in compliance with 4VAC50-60-1220 C 2.

"Impervious cover" means a surface composed of any material that significantly impedes or prevents natural infiltration of water into soil. Impervious surfaces include, but are not limited to, conventional roofs, buildings, streets, parking areas, and any conventional concrete, asphalt, or ~~compacted~~ gravel surface that is or may become compacted.

"Incorporated place" means a city, town, township, or village that is incorporated under the Code of Virginia.

"Indian country" means (i) all land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (ii) all dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (iii) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

"Indirect discharger" means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works (POTW)."

~~"Infiltration facility" means a stormwater management facility that temporarily impounds runoff and discharges it via infiltration through the surrounding soil. While an infiltration facility may also be equipped with an outlet structure to discharge impounded runoff, such discharge is normally reserved for overflow and other emergency conditions. Since an infiltration facility impounds runoff only temporarily, it is normally dry during nonrainfall periods. Infiltration basin, infiltration trench, infiltration dry well, and porous pavement shall be considered infiltration facilities.~~

"Inspection" means an on-site review of the project's compliance with the permit, the local stormwater management program, and any applicable design criteria, or an on-site review to obtain information or conduct surveys or investigations necessary in the enforcement of the Act and this chapter.

"Interstate agency" means an agency of two or more states established by or under an agreement or compact approved by Congress, or any other agency of two or more states having substantial powers or duties pertaining to the control of pollution as determined and approved by the administrator under the CWA and regulations.

[ "Karst area" means any land area predominantly underlain at the surface or shallow subsurface by limestone, dolomite, or other soluble bedrock regardless of any obvious surface karst features. ]

"Karst features" means sinkholes, sinking and losing streams, caves, large flow springs, and other such landscape features found in karst areas.

"Land disturbance" or "land-disturbing activity" means a manmade change to the land surface that potentially changes its runoff characteristics including any clearing, grading, or excavation associated with a construction activity regulated pursuant to the ~~federal Clean Water Act~~ CWA, the Act, and this chapter.

"Large construction activity" means construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Large construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more.

"Large municipal separate storm sewer system" means all municipal separate storm sewers that are either:

1. Located in an incorporated place with a population of 250,000 or more as determined by the 1990 decennial census by the Bureau of Census (40 CFR Part 122 Appendix F (2000));

2. Located in the counties listed in 40 CFR Part 122 Appendix H (2000), except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties;
3. Owned or operated by a municipality other than those described in subdivision 1 or 2 of this definition and that are designated by the board as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under subdivision 1 or 2 of this definition. In making this determination the board may consider the following factors:
  - a. Physical interconnections between the municipal separate storm sewers;
  - b. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in subdivision 1 of this definition;
  - c. The quantity and nature of pollutants discharged to surface waters;
  - d. The nature of the receiving surface waters; and
  - e. Other relevant factors.
4. The board may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a stormwater management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in this definition.

"Linear development project" means a land-disturbing activity that is linear in nature such as, but not limited to, (i) the construction of electric and telephone utility lines, and natural gas pipelines; (ii) construction of tracks, rights-of-way, bridges, communication facilities and other related structures of a railroad company; (iii) highway construction projects [ ~~and~~ ] (iv) construction of stormwater channels and stream restoration activities [ ~~and~~ (v) water and sewer lines ]. Private subdivision roads or streets shall not be considered linear development projects.

"Local stormwater management program" or "local program" means ~~a statement of the various methods employed by a locality or the department to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, permit requirements, policies and guidelines, technical materials, plan review, inspection, enforcement, and evaluation consistent with the Act and this chapter. The ordinance shall include provisions to require the control of after development stormwater runoff rate of flow, the proper maintenance of stormwater management facilities, and minimum administrative procedures.~~

"Locality" means a county, city, or town.

"Major facility" means any VSMP facility or activity classified as such by the regional administrator in conjunction with the board.

"Major modification" means, for the purposes of this chapter, the modification or amendment of an existing permit before its expiration that is not a minor modification as defined in this regulation.

"Major municipal separate storm sewer outfall ~~(or major outfall)~~" or "major outfall" means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more

than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), with an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of two acres or more).

"Manmade" means constructed by man.

"Manmade stormwater conveyance system" means a pipe, ditch, vegetated swale, or other conveyance constructed by man.

"Maximum daily discharge limitation" means the highest allowable daily discharge.

"Maximum extent practicable" or "MEP" means the technology-based discharge standard for municipal separate storm sewer systems established by CWA § 402(p). MEP is achieved, in part, by selecting and implementing effective structural and nonstructural best management practices (BMPs) and rejecting ineffective BMPs and replacing them with effective best management practices (BMPs). MEP is an iterative standard, which evolves over time as urban runoff management knowledge increases. As such, the operator's MS4 program must continually be assessed and modified to incorporate improved programs, control measures, BMPs, etc., to attain compliance with water quality standards.

"Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

1. Located in an incorporated place with a population of 100,000 or more but less than 250,000 as determined by the 1990 decennial census by the Bureau of Census (40 CFR Part 122 Appendix G (2000));
2. Located in the counties listed in 40 CFR Part 122 Appendix I (2000), except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties;
3. Owned or operated by a municipality other than those described in subdivision 1 or 2 of this definition and that are designated by the board as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under subdivision 1 or 2 of this definition. In making this determination the board may consider the following factors:
  - a. Physical interconnections between the municipal separate storm sewers;
  - b. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in subdivision 1 of this definition;
  - c. The quantity and nature of pollutants discharged to surface waters;
  - d. The nature of the receiving surface waters; or
  - e. Other relevant factors.
4. The board may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a stormwater management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in subdivisions 1, 2 and 3 of this definition.

"Minor modification" means, for the purposes of this chapter, minor modification or amendment of an existing permit before its expiration for the reasons listed at 40 CFR 122.63 and as specified in 4VAC50-60-640. Minor modification for the purposes of this chapter also means other modifications and amendments not requiring extensive review and evaluation including, but not limited to, changes in EPA promulgated test protocols, increasing monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor permit modification or amendment does not substantially alter permit conditions, substantially increase or decrease the amount of surface water impacts, increase the size of the operation, or reduce the capacity of the facility to protect human health or the environment.

"Municipal separate storm sewer" means a conveyance or system of conveyances otherwise known as a municipal separate storm sewer system, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains:

1. Owned or operated by a federal, state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction or delegated authority for erosion and sediment control and stormwater management, or a designated and approved management agency under § 208 of the CWA that discharges to surface waters;
2. Designed or used for collecting or conveying stormwater;
3. That is not a combined sewer; and
4. That is not part of a publicly owned treatment works.

"Municipal separate storm sewer system" or "MS4" means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems or designated under 4VAC50-60-380 A 1.

"Municipal Separate Storm Sewer System Management Program" or "MS4 Program" means a management program covering the duration of a permit for a municipal separate storm sewer system that includes a comprehensive planning process that involves public participation and intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA and regulations and the Virginia Stormwater Management Act and attendant regulations, using management practices, control techniques, and system, design and engineering methods, and such other provisions that are appropriate.

"Municipality" means a city, town, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under § 208 of the CWA.

"National Pollutant Discharge Elimination System (~~NPDES~~) or "NPDES" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under §§ 307, 402, 318, and 405 of the CWA. The term includes an approved program.

"Natural channel design concepts" means the utilization of engineering analysis and fluvial geomorphic processes to create, rehabilitate, restore, or stabilize an open conveyance system for the purpose of creating or recreating a stream that conveys its bankfull storm event within its banks and allows larger flows to access its floodplain.

"Natural stormwater conveyance system" means the main channel of a natural stream, in combination with the floodway and flood fringe, which compose the floodplain.

"Natural stream" means a tidal or nontidal watercourse that is part of the natural topography. It usually maintains a continuous or seasonal flow during the year and is characterized as being irregular in cross-section with a meandering course. Constructed channels such as drainage ditches or swales shall not be considered natural streams [ ; however, channels designed utilizing natural channel design concepts may be considered natural streams ].

"New discharger" means any building, structure, facility, or installation:

1. From which there is or may be a discharge of pollutants;
2. That did not commence the discharge of pollutants at a particular site prior to August 13, 1979;
3. Which is not a new source; and
4. Which has never received a finally effective VPDES or VSMP permit for discharges at that site.

This definition includes an indirect discharger that commences discharging into surface waters after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a site for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979.

"New permit" means, for the purposes of this chapter, a permit issued by the permit-issuing authority to a permit applicant that does not currently hold and has never held a permit of that type, for that activity, at that location.

"New source," means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

1. After promulgation of standards of performance under § 306 of the CWA that are applicable to such source; or
2. After proposal of standards of performance in accordance with § 306 of the CWA that are applicable to such source, but only if the standards are promulgated in accordance with § 306 of the CWA within 120 days of their proposal.

"Nonpoint source pollution" means pollution such as sediment, nitrogen and phosphorous, hydrocarbons, heavy metals, and toxics whose sources cannot be pinpointed but rather are washed from the land surface in a diffuse manner by stormwater runoff.

~~"Nonpoint source pollutant runoff load" or "pollutant discharge" means the average amount of a particular pollutant measured in pounds per year, delivered in a diffuse manner by stormwater runoff.~~

"Operator" means the owner or operator of any facility or activity subject to the VSMP permit regulation. In the context of stormwater associated with a large or small construction activity, operator means any person associated with a construction project that meets either of the following two criteria: (i) the person has direct operational control over construction plans and specifications, including the ability to make modifications to

those plans and specifications or (ii) the person has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions (i.e., they are authorized to direct workers at a site to carry out activities required by the stormwater pollution prevention plan or comply with other permit conditions). In the context of stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s), operator means the operator of the regulated MS4 system.

"Outfall" means, when used in reference to municipal separate storm sewers, a point source at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters.

"Overburden" means any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally occurring surface materials that are not disturbed by mining operations.

"Owner" means the Commonwealth or any of its political subdivisions including, but not limited to, sanitation district commissions and authorities, and any public or private institution, corporation, association, firm or company organized or existing under the laws of this or any other state or country, or any officer or agency of the United States, or any person or group of persons acting individually or as a group that owns, operates, charters, rents, or otherwise exercises control over or is responsible for any actual or potential discharge of sewage, industrial wastes, or other wastes or pollutants to state waters, or any facility or operation that has the capability to alter the physical, chemical, or biological properties of state waters in contravention of § 62.1-44.5 of the Code of Virginia, the Act and this chapter.

"Peak flow rate" means the maximum instantaneous flow from a prescribed design storm at a particular location.

"Percent impervious" means the impervious area within the site divided by the area of the site multiplied by 100.

"Permit" means an approval issued by the permit-issuing authority for the initiation of a land-disturbing activity or for stormwater discharges from an MS4. Permit does not include any permit that has not yet been the subject of final permit-issuing authority action, such as a draft permit or a proposed permit.

"Permit-issuing authority" means the board, the department, or a locality ~~that is delegated authority by the board to issue, deny, revoke, terminate, or amend stormwater permits under the provisions of the Act and this chapter~~ with a qualifying local program.

"Permittee" means the person or locality to which the permit is issued, including any owner or operator whose construction site is covered under a construction general permit.

"Person" means any individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, governmental body (including but not limited to a federal, state, or local entity), any interstate body or any other legal entity.

"Planning area" means a designated portion of the parcel on which the land development project is located. Planning areas shall be established by delineation on a master plan. Once established, planning areas shall be applied consistently for all future projects.

"Point of discharge" means a location at which [ concentrated ] stormwater runoff is released.

"Point source" means any discernible, confined, and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

"Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC § 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

1. Sewage from vessels; or
2. Water, gas, or other material that is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well if the well used either to facilitate production or for disposal purposes is approved by the board and if the board determines that the injection or disposal will not result in the degradation of ground or surface water resources.

"Pollutant discharge" means the average amount of a particular pollutant measured in pounds per year or other standard reportable unit as appropriate, delivered [ in a diffuse manner ] by stormwater runoff.

"Pollution" means such alteration of the physical, chemical or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters, or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the State Water Control Board, are "pollution" for the terms and purposes of this chapter.

~~"Post-development"~~ "Postdevelopment" refers to conditions that reasonably may be expected or anticipated to exist after completion of the land development activity on a specific site or tract of land.

~~"Pre-development"~~ "Predevelopment" refers to the conditions that exist at the time that plans for the land development of a tract of land are ~~approved by~~ submitted to the plan approval authority. Where phased development or plan approval occurs (preliminary grading, [ demolition of existing structures, ] roads and utilities, etc.), the existing conditions at the time prior to the first item being ~~approved or permitted~~ submitted shall establish ~~pre-development~~ predevelopment conditions.

"Prior developed lands" means land that has been previously utilized for residential, commercial, industrial, institutional, recreation, transportation or utility facilities or structures, and that will have the impervious areas associated with those uses altered during a land-disturbing activity.

"Privately owned treatment works (~~PVOTW~~)" or "PVOTW" means any device or system that is (i) used to treat wastes from any facility whose operator is not the operator of the treatment works and (ii) not a POTW.

"Proposed permit" means a VSMP permit prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) that is sent to EPA for review before final issuance. A proposed permit is not a draft permit.

"Publicly owned treatment works (~~POTW~~)" or "POTW" means a treatment works as defined by § 212 of the CWA that is owned by a state or municipality (as defined by § 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the municipality as defined in § 502(4) of the CWA, that has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

"Qualified personnel" means a licensed professional engineer, responsible land disturber, or other person who holds a certificate of competency from the board in the area of project inspection or combined administrator.

"Qualifying local stormwater management program" or "qualifying local program" means a local program that is administered by a locality that has been authorized by the board to issue coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities (4VAC50-60-1170).

"Recommencing discharger" means a source that recommences discharge after terminating operations.

"Regional administrator" means the Regional Administrator of Region III of the Environmental Protection Agency or the authorized representative of the regional administrator.

~~"Regional (watershed-wide) stormwater management facility" or "regional facility" means a facility or series of facilities designed to control stormwater runoff from a specific watershed, although only portions of the watershed may experience land development.~~

~~"Regional (watershed-wide) stormwater management plan" or "regional plan" means a document containing material describing how runoff from open space, existing development and future planned development areas within a watershed will be controlled by coordinated design and implementation of regional stormwater management facilities.~~

"Restored stormwater conveyance system" means a stormwater conveyance system that has been designed and constructed using natural channel design concepts, including the main channel, floodway, and flood fringe.

"Revoked permit" means, for the purposes of this chapter, an existing permit that is terminated by the board before its expiration.

"Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.

"Runoff" or "stormwater runoff" means that portion of precipitation that is discharged across the land surface or through conveyances to one or more waterways.

~~"Sand filter" means a contained bed of sand that acts to filter the first flush of runoff. The runoff is then collected beneath the sand bed and conveyed to an adequate discharge point or infiltrated into the in-situ soils.~~

"Runoff characteristics" include [ , but are not limited to, ] velocity, peak flow rate, volume, time of concentration, and flow duration, and their influence on channel morphology including sinuosity, channel cross-sectional area, and channel slope.

"Runoff volume" means the volume of water that runs off the site of a land-disturbing activity from a prescribed design storm.

"Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the Act, the CWA and regulations.

"Secretary" means the Secretary of the Army, acting through the Chief of Engineers.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

~~"Shallow marsh" means a zone within a stormwater extended detention basin that exists from the surface of the normal pool to a depth of six to 18 inches, and has a large surface area and, therefore, requires a reliable source of baseflow, groundwater supply, or a sizeable drainage area, to maintain the desired water surface elevations to support emergent vegetation.~~

"Significant materials" means, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under § 101(14) of CERCLA (42 USC § 9601(14)); any chemical the facility is required to report pursuant to § 313 of Title III of SARA (42 USC § 11023); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

"Single jurisdiction" means, for the purposes of this chapter, a single county or city. The term county includes incorporated towns which are part of the county.

"Site" means the land or water area where any facility or activity is physically located or conducted, a parcel of land being developed, or a designated planning area of a parcel in which the land development project is located. Areas channelward of mean low water in tidal Virginia shall not be considered part of a site.

"Site hydrology" means the movement of water on, across, through and off the site as determined by parameters including, but not limited to, soil types, soil permeability, vegetative cover, seasonal water tables, slopes, land cover, and impervious cover.

"Small construction activity" means:

1. Construction activities including clearing, grading, and excavating that results in land disturbance of equal to or greater than one acre, or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, and less

than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. The board may waive the otherwise applicable requirements in a general permit for a stormwater discharge from construction activities that disturb less than five 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, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. For the purpose of this subdivision, the pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the board that the construction activity will take place, and stormwater discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis.

2. Any other construction activity designated by the either the board or the EPA regional administrator, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters.

"Small municipal separate storm sewer system" or "small MS4" means all separate storm sewers that are (i) owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under § 208 of the CWA that discharges to surface waters and (ii) not defined as "large" or "medium" municipal separate storm sewer systems or designated under 4VAC50-60-380 A 1. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highway and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

"Source" means any building, structure, facility, or installation from which there is or may be a discharge of pollutants.

"Stable" means, in the context of channels, a channel that has developed an established dimension, pattern, and profile such that over time, these features are maintained.

"State" means the Commonwealth of Virginia.

"State/EPA agreement" means an agreement between the regional administrator and the state that coordinates EPA and state activities, responsibilities and programs including those under the CWA and the Act.

"State project" means any land development project that is undertaken by any state agency, board, commission, authority or any branch of state government, including state-supported institutions of higher learning.

"State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

"State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Stormwater" means precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater conveyance system" means any of the following, either within or downstream of the land-disturbing activity: (i) a manmade stormwater conveyance system, (ii) a natural stormwater conveyance system, or (iii) a restored stormwater conveyance system.

~~"Stormwater detention basin" or "detention basin" means a stormwater management facility that temporarily impounds runoff and discharges it through a hydraulic outlet structure to a downstream conveyance system. While a certain amount of outflow may also occur via infiltration through the surrounding soil, such amounts are negligible when compared to the outlet structure discharge rates and are, therefore, not considered in the facility's design. Since a detention facility impounds runoff only temporarily, it is normally dry during nonrainfall periods.~~

"Stormwater discharge associated with construction activity" means a discharge of pollutants in stormwater runoff from areas where land-disturbing activities (e.g., clearing, grading, or excavation); construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling); or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

"Stormwater discharge associated with large construction activity" means the discharge of stormwater from large construction activities.

"Stormwater discharge associated with small construction activity" means the discharge of stormwater from small construction activities.

~~"Stormwater extended detention basin" or "extended detention basin" means a stormwater management facility that temporarily impounds runoff and discharges it through a hydraulic outlet structure over a specified period of time to a downstream conveyance system for the purpose of water quality enhancement or stream channel erosion control. While a certain amount of outflow may also occur via infiltration through the surrounding soil, such amounts are negligible when compared to the outlet structure discharge rates and, therefore, are not considered in the facility's design. Since an extended detention basin impounds runoff only temporarily, it is normally dry during nonrainfall periods.~~

~~"Stormwater extended detention basin-enhanced" or "extended detention basin-enhanced" means an extended detention basin modified to increase pollutant removal by providing a shallow marsh in the lower stage of the basin.~~

"Stormwater management facility" means a device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow.

"Stormwater management plan" means a document(s) containing material for describing how existing runoff characteristics will be maintained by a land-disturbing activity and methods for complying with the requirements of the local program or this chapter.

"Stormwater Management Program" means a program established by a locality that is consistent with the requirements of the ~~Virginia Stormwater Management Act~~, this chapter and associated guidance documents.

"Stormwater management standards" means the minimum criteria for stormwater management programs and land-disturbing activities as set out in Part II (4VAC50-60-40 et seq.) of this chapter.

"Stormwater Pollution Prevention Plan" or "SWPPP" means a document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site or its associated land-disturbing activities. In addition the document shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of, an erosion and sediment control plan, a post-construction stormwater management plan, a spill prevention control and countermeasure (SPCC) plan, and other practices that will be used to minimize pollutants in stormwater discharges from land-disturbing activities in compliance with the terms and conditions of this chapter. All plans incorporated by reference into the SWPPP shall be enforceable under the permit issued or general permit coverage authorized.

~~"Stormwater retention basin" or "retention basin" means a stormwater management facility that includes a permanent impoundment, or normal pool of water, for the purpose of enhancing water quality and, therefore, is normally wet, even during nonrainfall periods. Storm runoff inflows may be temporarily stored above this permanent impoundment for the purpose of reducing flooding, or stream channel erosion.~~

~~"Stormwater retention basin I" or "retention basin I" means a retention basin with the volume of the permanent pool equal to three times the water quality volume.~~

~~"Stormwater retention basin II" or "retention basin II" means a retention basin with the volume of the permanent pool equal to four times the water quality volume.~~

~~"Stormwater retention basin III" or "retention basin III" means a retention basin with the volume of the permanent pool equal to four times the water quality volume with the addition of an aquatic bench.~~

"Subdivision" means the same as defined in § 15.2-2201 of the Code of Virginia.

"Surface waters" means:

1. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - a. That are or could be used by interstate or foreign travelers for recreational or other purposes;

- b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - c. That are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as surface waters under this definition;
  5. Tributaries of waters identified in subdivisions 1 through 4 of this definition;
  6. The territorial sea; and
  7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in subdivisions 1 through 6 of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA and the law, are not surface waters. Surface waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other agency, for the purposes of the Clean Water Act, the final authority regarding the Clean Water Act jurisdiction remains with the EPA.

"Total dissolved solids" means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136 (2000).

"Total maximum daily load" or "TMDL" means the sum of the individual wasteload allocations for point sources, load allocations (LAs) for nonpoint sources, natural background loading and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs.

"Toxic pollutant" means any pollutant listed as toxic under § 307(a)(1) of the CWA or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing § 405(d) of the CWA.

"Unstable" means, in the context of channels, a channel that is not stable.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

[ "Urban development area" or "UDA" means, as defined by § 15.2-2223.1 of the Code of Virginia, an area designated by a locality that is appropriate for higher density development due to proximity to transportation facilities, the availability of a public or community water and sewer system, or proximity to a city, town, or other developed area. ]

"Variance" means any mechanism or provision under § 301 or § 316 of the CWA or under 40 CFR Part 125 (2000), or in the applicable federal effluent limitations guidelines that allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the CWA. This includes provisions that allow the establishment of alternative limitations based on fundamentally different factors or on § 301(c), § 301(g), § 301(h), § 301(i), or § 316(a) of the CWA.

~~"Vegetated filter strip" means a densely vegetated section of land engineered to accept runoff as overland sheet flow from upstream development. It shall adopt any natural vegetated form, from grassy meadow to small forest. The vegetative cover~~

~~facilitates pollutant removal through filtration, sediment deposition, infiltration and absorption, and is dedicated for that purpose.~~

"Virginia Pollutant Discharge Elimination System (VPDES) permit" or "VPDES permit" means a document issued by the State Water Control Board pursuant to the State Water Control Law authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters and the use or disposal of sewage sludge.

"Virginia Stormwater Management Act" means Article 1.1 (§ 10.1-603.1 et seq.) of Chapter 6 of Title 10.1 of the Code of Virginia.

"Virginia Stormwater BMP Clearinghouse website" means a website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and associated regulations and that is jointly created by the department and the Virginia Water Resources Research Center subject to advice to the director from a permanent stakeholder advisory committee.

"Virginia Stormwater Management Handbook" means a collection of pertinent information that provides general guidance for compliance with the Act and associated regulations and is developed by the department with advice from a stakeholder advisory committee.

"Virginia Stormwater Management Program (~~VSMP~~) or VSMP" means the Virginia program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing requirements pursuant to the ~~federal Clean Water Act CWA~~, the Virginia Stormwater Management Act, this chapter, and associated guidance documents.

"Virginia Stormwater Management Program (~~VSMP~~) permit" or "VSMP permit" means a document issued by the permit-issuing authority pursuant to the Virginia Stormwater Management Act and this chapter authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters. Under the approved state program, a VSMP permit is equivalent to a NPDES permit.

"VSMP application" or "application" means the standard form or forms, including any additions, revisions or modifications to the forms, approved by the administrator and the board for applying for a VSMP permit.

"Wasteload allocation" or "wasteload" or "WLA" means the portion of a receiving surface water's loading or assimilative capacity allocated to one of its existing or future point sources of pollution. WLAs are a type of water quality-based effluent limitation.

"Water quality standards" or "WQS" means provisions of state or federal law that consist of a designated use or uses for the waters of the Commonwealth and water quality criteria for such waters based on such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water, and serve the purposes of the State Water Control Law (§ 62.1-44.2 et seq. of the Code of Virginia), the ~~Virginia Stormwater Management Act~~ (§ 10.1-603.1 et seq. of the Code of Virginia), and the ~~federal Clean Water Act CWA~~ (33 USC § 1251 et seq.).

~~"Water quality volume" means the volume equal to the first 1/2 inch of runoff multiplied by the impervious surface of the land development project.~~

"Watershed" means a defined land area drained by a river or stream, karst system, or system of connecting rivers or streams such that all surface water within the area

flows through a single outlet. In karst areas, the karst feature to which the water drains may be considered the single outlet for the watershed.

"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

"Whole effluent toxicity" means the aggregate toxic effect of an effluent measured directly by a toxicity test.

#### **4VAC50-60-20. Purposes.**

The purposes of this chapter are to provide a framework for the administration, implementation and enforcement of the Virginia Stormwater Management Act (Act) and to delineate the procedures and requirements to be followed in connection with VSMP permits issued by the board or its designee pursuant to the Clean Water Act (CWA) and the Virginia Stormwater Management Act, while at the same time providing flexibility for innovative solutions to stormwater management issues. The chapter also establishes the board's procedures for the authorization of a 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 a local program in localities where no qualifying local program is authorized, and the components of a stormwater management program including but not limited to stormwater management standards.

#### **4VAC50-60-30. Applicability.**

This chapter is applicable to:

1. Every private, local, state, or federal entity that establishes a stormwater management program or a MS4 program;
2. The department in its oversight of locally administered programs or in its administration of a local program;
- ~~2.~~ 3. Every state agency project regulated under the Act and this chapter; and
- ~~3.~~ 4. Every land-disturbing activity regulated under § 10.1-603.8 of the Code of Virginia unless otherwise exempted in § 10.1-603.8 B.

#### Part II [ A ]

#### Stormwater Management Program Technical Criteria

#### **4VAC50-60-40. Applicability Authority [ and applicability ].**

~~This part specifies technical criteria for every stormwater management program and land-disturbing activity.~~

Pursuant to the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia), the board is required to take actions ensuring the general health, safety, and welfare of the citizens of the Commonwealth as well as protecting the quality and quantity of state waters from the potential harm of unmanaged stormwater. In addition to other authority granted to the board under the Stormwater Management Act, the board is authorized pursuant to §§ 10.1-603.2:1 and 10.1-603.4 to adopt regulations that specify minimum technical criteria for stormwater management programs in Virginia, to establish statewide standards for stormwater management from land-disturbing activities, and to protect properties, the quality and quantity of state waters, the physical integrity of stream channels, and other natural resources.

[ ~~In accordance with the board's authority, this part establishes the minimum technical criteria and stormwater management standards that shall be employed by a state agency in accordance with an implementation schedule set by the board, or by a qualifying local program or department-administered local stormwater management program 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.~~

~~For those localities required to adopt a local stormwater management program pursuant to § 10.1-603.3 of the Code of Virginia, until a local program is approved by the board, the technical criteria required shall be that found at 4VAC50-60-1180 through 4VAC50-60-1190.~~ ]

**[ 4VAC50-60-45. Applicability.**

~~In accordance with the board's authority, this part establishes the minimum technical criteria and stormwater management standards that shall be employed by a state agency in accordance with an implementation schedule set by the board, or by a qualifying local program or department-administered local stormwater management program 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, except as provided in 4VAC50-60-48.~~

**4VAC50-60-48. Grandfathering.**

~~A. Land-disturbing activities that receive coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities prior to the adoption of a local stormwater management program within their jurisdiction shall not be subject to the technical criteria of Part II A, but shall be subject to the technical criteria of Part II B, until the expiration of that permit on June 30, 2014.~~

~~B. If the operator of a project, as of July 1, 2010, (i) obtained or is the beneficiary of a significant affirmative governmental act that remains in effect allowing development of a specific project, (ii) relied in good faith on the significant affirmative governmental act, (iii) incurred extensive obligations or substantial expenses in diligent pursuit of the specific project in reliance on the significant affirmative governmental act, and (iv) obtained VSMP general permit coverage prior to July 1, 2010, then the land-disturbing activity associated with the project is grandfathered and shall remain subject to the Part II B Technical Criteria until June 30, 2014. If permit coverage continuously remains in effect for the land-disturbing activity within the entire project area, then the project shall remain subject to the Part II B Technical Criteria until June 30, 2019. Should permit coverage not be maintained or if the land-disturbing activity continues beyond June 30, 2019, portions of the project not completed shall be subject to the Part II A Technical Criteria. In the event that the qualifying significant affirmative governmental act or the VSMP permit is subsequently modified or amended in a manner such that there is no increase in the amount of phosphorus leaving the site through stormwater runoff, and such that there is no increase in the volume or rate of runoff, the grandfathering shall continue as before.~~

~~For purposes of this subsection and without limitation, the following are deemed to be significant affirmative governmental acts allowing development of a specific project: (i) the governing body has accepted proffers or proffered conditions that specify use related to a zoning amendment; (ii) the governing body has approved an application for a rezoning for a specific use or density; (iii) the governing body or board of zoning appeals has granted a special exception or use permit with conditions; (iv) the board of~~

zoning appeals has approved a variance; (v) the governing body or its designated agent has approved a preliminary subdivision plat, site plan, or plan of development for the landowner's property and the applicant diligently pursues approval of the final plat or plan within a reasonable period of time under the circumstances; or (vi) the governing body or its designated agent has approved a final subdivision plat, site plan or plan of development for the landowner's property. ] [ For the purposes of this subsection and without limitation, for state and federal projects, the approval of state or federal funding for a project or the approval of a stormwater management plan are deemed to be significant affirmative governmental acts.

C. Where a land-disturbing activity is part of a common plan of development or sale that has obtained VSMP general permit coverage from the department prior to July 1, 2010, the land-disturbing activity will be subject to the technical criteria of Part II B. The registration statement shall include the permit coverage number for the common plan of development or sale for which association is being claimed. ]

[ D. In cases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2010, such project shall be subject to the technical criteria of Part II B. ]

#### **4VAC50-60-50. General. (Repealed.)**

~~A. Determination of flooding and channel erosion impacts to receiving streams due to land disturbing activities shall be measured at each point of discharge from the land disturbance and such determination shall include any runoff from the balance of the watershed which also contributes to that point of discharge.~~

~~B. The specified design storms shall be defined as either a 24-hour storm using the rainfall distribution recommended by the U.S. Department 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.~~

~~C. For purposes of computing runoff, all pervious lands in the site shall be assumed prior to development to be in good condition (if the lands are pastures, lawns, or parks), with good cover (if the lands are woods), or with conservation treatment (if the lands are cultivated); regardless of conditions existing at the time of computation.~~

~~D. Construction of stormwater management facilities or modifications to channels shall comply with all applicable laws and regulations. Evidence of approval of all necessary permits shall be presented.~~

~~E. Impounding structures that are not covered by the Impounding Structure Regulations (4VAC50-20) shall be engineered for structural integrity during the 100-year storm event.~~

~~F. Pre-development and post-development runoff rates shall be verified by calculations that are consistent with good engineering practices.~~

~~G. Outflows from a stormwater management facility or stormwater conveyance system, shall be discharged to an adequate channel.~~

~~H. Proposed residential, commercial, or industrial subdivisions shall apply these stormwater management criteria to the land disturbance as a whole. Individual lots in new subdivisions shall not be considered separate land disturbing activities, but rather the entire subdivision shall be considered a single land development project. Hydrologic parameters shall reflect the ultimate land disturbance and shall be used in all engineering calculations.~~

~~I. All stormwater management facilities shall have an inspection and maintenance plan that identifies the owner and the responsible party for carrying out the inspection and maintenance plan.~~

~~J. Construction of stormwater management impoundment structures within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater management facility construction shall be in compliance with all applicable regulations under the National Flood Insurance Program, 44 CFR Part 59.~~

~~K. Natural channel characteristics shall be preserved to the maximum extent practicable.~~

~~L. Land disturbing activities shall comply with the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Code of Virginia) and attendant regulations.~~

~~M. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed may be allowed in Resource Protection Areas defined in the Chesapeake Bay Preservation Act, provided that (i) the local government has conclusively established that the location of the facility within the Resource Protection Area is the optimum location; (ii) the size of the facility is the minimum necessary to provide necessary flood control, stormwater treatment, or both; and, (iii) the facility must be consistent with a stormwater management program that has been approved by the board.~~

#### **4VAC50-60-53. General requirements.**

The physical, chemical, biological, and hydrologic characteristics and the water quality and quantity of the receiving state waters shall be maintained, protected, or improved in accordance with the requirements of this part. Objectives include, but are not limited to, supporting state designated uses and water quality standards. All control measures used shall be employed in a manner that minimizes impacts on receiving state waters.

#### **4VAC50-60-56. Applicability of other laws and regulations.**

Nothing in this chapter shall be construed as limiting the applicability of other laws and regulations, including, but not limited to, the CWA, Virginia Stormwater Management Act, Virginia Erosion and Sediment Control Law, and the Chesapeake Bay Preservation Act, except as provided in § 10.1-603.3 I of the Code of Virginia and all applicable regulations adopted in accordance with those laws, or the rights of other federal agencies, state agencies, or local governments to impose more stringent technical criteria or other requirements as allowed by law.

#### **4VAC50-60-60. Water quality. (Repealed.)**

~~A. Compliance with the water quality criteria may be achieved by applying the performance-based criteria or the technology-based criteria to either the site or a planning area.~~

~~B. Performance based criteria. For land disturbing activities, the calculated post-development nonpoint source pollutant runoff load shall be compared to the calculated pre-development load based upon the average land cover condition or the existing site condition. A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in Table 1 to effectively reduce the pollutant load to the required level based upon the following four applicable land development situations for which the performance criteria apply:~~

~~1. Situation 1 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is less than the average land cover condition.~~

~~Requirement: No reduction in the after disturbance pollutant discharge is required.~~

~~2. Situation 2 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover which is greater than the average land cover condition.~~

~~Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the average land cover condition.~~

~~3. Situation 3 consists of land-disturbing activities where the existing percent impervious cover is greater than the average land cover condition.~~

~~Requirement: The pollutant discharge after disturbance shall not exceed (i) the pollutant discharge based on existing conditions less 10% or (ii) the pollutant discharge based on the average land cover condition, whichever is greater.~~

~~4. Situation 4 consists of land-disturbing activities where the existing percent impervious cover is served by an existing stormwater management BMP that addresses water quality.~~

~~Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the existing percent impervious cover while served by the existing BMP. The existing BMP shall be shown to have been designed and constructed in accordance with proper design standards and specifications, and to be in proper functioning condition.~~

~~C. Technology based criteria. For land-disturbing activities, the post-developed stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the post developed condition percent impervious cover as specified in Table 1. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in Table 1. Design standards and specifications for the BMPs in Table 1 that meet the required target pollutant removal efficiency will be available at the department.~~

Table 1\*

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed Swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2 x WQ Vol)	35%	
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	38-66%
Bioretention filter	50%	
Extended detention enhanced	50%	
Retention basin II (4 x WQ Vol)	50%	

Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	67-100%
Infiltration (2 x WQ Vol)	65%	
Retention basin III (4 x WQ Vol with aquatic bench)	65%	

\*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the department. Innovative or alternate BMPs not included in this table which target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the department.

**4VAC50-60-63. Water quality [ design ] criteria requirements.**

In order to protect the quality of state waters and to control [ nonpoint source pollution stormwater pollutants ], the following minimum technical criteria and statewide standards for stormwater management shall be applied to the site of a land-disturbing activity. [ The local program shall have discretion to allow for application of the criteria to each drainage area of the site. However, where a site drains to more than one HUC, the pollutant load reduction requirements shall be applied independently within each HUC unless reductions are achieved in accordance with a comprehensive watershed stormwater management plan in accordance with 4VAC50-60-96. ]

1. New development. The total phosphorus load of new development projects shall not exceed [ 0.28 0.45 ] pounds per acre per year, as calculated pursuant to 4VAC50-60-65 [ , except:

[ a. The total phosphorus load of a new development project disturbing greater than or equal to one acre in the Chesapeake Bay watershed shall not exceed 0.28 pounds per acre per year, as calculated pursuant to 4VAC50-60-65.

b. Within a. Should the board establish by regulatory action a standard more stringent than 0.45 pounds per acre per year in the Chesapeake Bay watershed, then a qualifying local program may establish a standard of no greater than 0.45 pounds per acre per year to be applied within ] urban development areas designated pursuant to § 15.2-2223.1 of the Code of Virginia [ in the Chesapeake Bay watershed a qualifying local program may establish a phosphorus standard between 0.28 and 0.45 pounds per acre per year ] for projects greater than or equal to one acre in order to encourage compact development that achieves superior water quality benefits. The qualifying local program shall provide to the board for approval a justification for any standards established [ if greater than 0.28 ] and shall define the types of projects within a UDA that would qualify for the [ relaxed ] standards. The standard shall be based upon factors including, but not limited to, number of housing units per acre for residential development, floor area ratio for nonresidential development, level of imperviousness, brownfield remediation potential, mixed-use and transit oriented development potential, proximity to the Chesapeake Bay or local waters of concern, and the presence of impaired waters. This provision shall not apply to department-administered local programs.

[ c. Localities b. Should the board establish by regulatory action a standard more stringent than 0.45 pounds per acre per year in the Chesapeake Bay

watershed, localities ] that have lands that drain to both the Chesapeake Bay watershed and other non-Chesapeake Bay watersheds may choose to apply the [ 0.28 pounds per acre per year more stringent ] phosphorus standard [ for the Chesapeake Bay watershed ] to land-disturbing activities that discharge to watersheds other than the Chesapeake Bay watershed ].

[ c. Upon the completion of the Virginia TMDL Implementation Plan for the Chesapeake Bay Nutrient and Sediment TMDL approved by EPA, the board shall by regulatory action establish a water quality design criteria for new development activities that is consistent with the pollutant loadings called for in the approved Implementation Plan. ]

2. Development on prior developed lands.

[ a. ] The total phosphorus load of [ projects a project ] occurring on prior developed lands [ and [ distributing disturbing ] greater than or equal to one acre ] shall be reduced to an amount at least 20% below the predevelopment total phosphorus load.

[ However, the b. The total phosphorus load of a project occurring on prior developed lands and disturbing less than one acre shall be reduced to an amount at least 10% below the predevelopment total phosphorus load.

c. The ] total phosphorus load shall not be required to be reduced to below [ 0.28 pounds per acre per year the applicable standard for new development ] unless a more stringent standard has been established by a qualifying local program.

3. Compliance with [ subdivisions 1 and 2 of this section shall be determined in accordance with ] 4VAC50-60-65 [ shall constitute compliance with subdivisions 1 and 2 of this section ].

4. TMDL. In addition to the above requirements, if a specific WLA for a pollutant has been established in a TMDL and is assigned to stormwater discharges from a construction activity, necessary control measures must be implemented by the operator to meet the WLA in accordance with the requirements established in the General Permit for Discharges of Stormwater from Construction Activities or an individual permit, which address both construction and postconstruction discharges.

[ 5. Nothing in this section shall prohibit a qualifying local program from establishing a more stringent standard. ]

**4VAC50-60-65. Water quality compliance.**

A. Compliance with the water quality [ design ] criteria set out in subdivisions 1 and 2 of 4VAC50-60-63 shall be determined by utilizing the Virginia Runoff Reduction Method or another methodology that is demonstrated by the qualifying local program to achieve equivalent or more stringent results and is approved by the board.

B. The BMPs listed in Table 1 [ or the BMPs available on the Virginia Stormwater BMP Clearinghouse website ] shall be utilized as necessary to effectively reduce the phosphorus load in accordance with the Virginia Runoff Reduction Method. Design specifications for the BMPs listed in Table 1 can be found [ on the Virginia Stormwater BMP Clearinghouse Website ] at <http://www.vwrrc.vt.edu/swc>. [ Other approved BMPs available on this website may also be utilized. ]

TABLE 1

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BMP Pollutant Removal Efficiencies

<u>Practice</u>	<u>Removal of Total Phosphorus by Runoff Volume Reduction (RR, as %) (based upon 1 inch of rainfall -- 90% storm)</u>	<u>Removal of Total Phosphorus by Treatment -- Pollutant Concentration Reduction (PR, as %)</u>	<u>Total [ Mass Load ] Removal of Total Phosphorus (TR, as %) [5]</u>
[ <u>Green Vegetated Roof 1</u> ]	<u>45</u>	<u>0</u>	<u>45</u>
[ <u>Green Vegetated Roof 2</u> ]	<u>60</u>	<u>0</u>	<u>60</u>
<u>Rooftop Disconnection [ 1<sup>2</sup> ]</u>	<u>25 [ or 50<sup>1</sup> ]</u>	<u>0</u>	<u>25 [ or 50<sup>1</sup> ]</u>
[ <u>Rooftop Disconnection 2</u> ]	[ <u>50</u> ]	[ <u>0</u> ]	[ <u>50</u> ]
[ <u>Rain Tanks/Cisterns 1 Rainwater Harvesting</u> ]	[ <u>actual volume x .75 up to 90<sup>3</sup>[5]</u> ]	<u>0</u>	[ <u>actual volume x .75 up to 90<sup>3</sup>[5]</u> ]
[ <u>Soil Amendments 1</u> ]	[ <u>50</u> ]	[ <u>0</u> ]	[ <u>50</u> ]
[ <u>Soil Amendments 2</u> ]	[ <u>75</u> ]	[ <u>0</u> ]	[ <u>75</u> ]
[ <u>Soil Amendments</u> ]	[ <u>Can be used to decrease runoff coefficient for turf cover at site. See designs for Rooftop Disconnection, Sheet Flow, and Grass Channel practices.</u> ]		
<u>Permeable Pavement 1</u>	<u>45</u>	<u>25</u>	<u>59</u>
<u>Permeable Pavement 2</u>	<u>75</u>	<u>25</u>	<u>81</u>
<u>Grass Channel [ 1 ]</u>	<u>10 [ or 20<sup>1</sup> ]</u>	<u>15</u>	<u>23</u>
[ <u>Grass Channel 2</u> ]	[ <u>20</u> ]	[ <u>15</u> ]	[ <u>32</u> ]
<u>Bioretention 1 [ (also applies to Urban Bioretention) ]</u>	<u>40</u>	<u>25</u>	<u>55</u>
<u>Bioretention 2</u>	<u>80</u>	<u>50</u>	<u>90</u>
<u>Infiltration 1</u>	<u>50</u>	<u>25</u>	<u>63</u>
<u>Infiltration 2</u>	<u>90</u>	<u>25</u>	<u>93</u>

<u>Dry Swale 1</u>	<u>40</u>	<u>20</u>	<u>52</u>
<u>Dry Swale 2</u>	<u>60</u>	<u>40</u>	<u>76</u>
<u>Wet Swale 1</u>	<u>0</u>	<u>20</u>	<u>20</u>
<u>Wet Swale 2</u>	<u>0</u>	<u>40</u>	<u>40</u>
<u>Sheet Flow to</u> [ <u>Conserved Filter/</u> ] <u>Open Space 1</u>	[ <u>0 25 or 50</u> <sup>1</sup> ]	[ <u>50 0</u> ]	[ <u>25 or</u> ] <u>50</u> [ <sup>1</sup> ]
<u>Sheet Flow to</u> [ <u>Conserved Filter/</u> ] <u>Open Space 2</u> [ <sup>5</sup> [ <sup>2</sup> ] ]	[ <u>0 50 or 75</u> <sup>1</sup> ]	[ <u>75 0</u> ]	[ <u>50 or</u> ] <u>75</u> [ <sup>1</sup> ]
<u>Extended Detention Pond 1</u>	<u>0</u>	<u>15</u>	<u>15</u>
<u>Extended Detention Pond 2</u>	<u>15</u>	<u>15</u>	[ <u>28 31</u> ]
<u>Filtering Practice 1</u>	<u>0</u>	<u>60</u>	<u>60</u>
<u>Filtering Practice 2</u>	<u>0</u>	<u>65</u>	<u>65</u>
<u>Constructed Wetland 1</u>	<u>0</u>	<u>50</u>	<u>50</u>
<u>Constructed Wetland 2</u>	<u>0</u>	<u>75</u>	<u>75</u>
<u>Wet Pond 1</u>	<u>0</u>	<u>50</u> [ <u>(45<sup>4</sup>)</u> ]	<u>50</u> [ <u>(45<sup>4</sup>)</u> ]
<u>Wet Pond 2</u>	<u>0</u>	<u>75</u> [ <u>(65<sup>4</sup>)</u> ]	<u>75</u> [ <u>(65<sup>4</sup>)</u> ]
<p>[ <sup>1</sup> Lower rate is for Hydrologic Soil Group (HSG) class C and D soils; higher rate is for HSG class A and B soils.</p> <p><sup>2</sup> The removal can be increased to 50% for C and D soils by adding soil compost amendments, and may be higher yet if combined with secondary runoff reduction practices.</p> <p><sup>3</sup> Credit up to 90% is possible if all water from storms 1" or less is used through demand, and tank is sized such that no overflow occurs. Total credit is not to exceed 90%.</p> <p><sup>4</sup> Lower nutrient removals in parentheses apply to wet ponds in coastal plain terrain.</p> <p><sup>5</sup> See BMP design specification for an explanation of how additional pollutant removal can be achieved. ]</p>			

C. BMPs differing from those listed in Table 1 shall be reviewed and approved by the director in accordance with procedures established by the BMP Clearinghouse Committee and approved by the board.

D. A qualifying local program may establish [ use ] limitations on [ the use of ] specific BMPs following the submission of the proposed [ use ] limitation and written justification to the department.

E. Where the land-disturbing activity only occurs on a portion of the site, the local program may review the stormwater management plan based upon the portion of the site that is proposed to be developed, provided that the local program has established guidance for such a review. Such portion shall be deemed to include any area left undeveloped pursuant to any local requirement or proffer accepted by a locality. Any such guidance shall be provided to the department.

F. [ If a comprehensive watershed stormwater management plan has been adopted pursuant to 4VAC50-60-96 for the watershed within which a project is located, then the qualifying local program may allow offsite controls in accordance with the plan to achieve the postdevelopment pollutant load water quality technical criteria set out in subdivisions 1 and 2 of 4VAC50-60-63. Such offsite controls shall achieve the required pollutant reductions either completely offsite in accordance with the plan or in a combination of onsite and offsite controls. The local program shall have the discretion to allow for application of the criteria to each drainage area of the site. However, where a site drains to more than one HUC, the pollutant load reduction requirements shall be applied independently within each HUC unless reductions are achieved in accordance with a comprehensive watershed stormwater management plan in accordance with 4VAC50-60-92. ]

[ G. Where no plan exists pursuant to subsection F of this section, offsite controls may be used to meet the postdevelopment pollutant load water quality technical criteria set out in subdivisions 1 and 2 of 4VAC50-60-63 provided:

1. The local program allows for offsite controls;
2. The applicant demonstrates to the satisfaction of the local program that offsite reductions equal to or greater than those that would otherwise be required for the site are achieved;
3. The applicant demonstrates to the satisfaction of the local program that the development's runoff and the runoff from any offsite treatment area shall be controlled in accordance with 4VAC50-60-66;
4. Offsite controls must be located within the same HUC or the adjacent downstream HUC to the land disturbing site; and
5. The applicant demonstrates to the satisfaction of the local program that the right to utilize the offsite control area and any necessary easements has been obtained and maintenance agreements for the stormwater management facilities have been established pursuant to 4VAC50-60-124.

H. Alternatively, the local program may waive the requirements of subdivisions 1 and 2 of 4VAC50-60-63 through the granting of an exception pursuant to 4VAC50-60-122. G. Offsite alternatives where allowed in accordance with 4VAC50-60-69 may be utilized to meet the design criteria of subdivisions 1 and 2 of 4VAC50-60-63. ]

#### **4VAC50-60-66. Water quantity.**

A. Channel protection and flood protection shall be addressed in accordance with the minimum standards set out in this section, which are established pursuant to the requirements of subdivision 7 of § 10.1-603.4 of the Code of Virginia. [ Nothing in this section shall prohibit a qualifying local program from establishing a more stringent standard. ]

B. Channel protection. Concentrated stormwater flow from the site and offsite contributing areas shall be released into a stormwater conveyance system and shall meet one of the following criteria as demonstrated by use of accepted hydrologic and hydraulic methodologies:

1. Concentrated stormwater flow to manmade stormwater conveyance systems. The point of discharge releases stormwater into a manmade stormwater conveyance system that, following the land-disturbing activity, conveys the postdevelopment peak flow rate from the two-year 24-hour storm without causing erosion of the system.

2. Concentrated stormwater flow to restored stormwater conveyance systems. The point of discharge releases stormwater into a stormwater conveyance system that (i) has been restored and is functioning as designed or (ii) will be restored. The applicant must demonstrate that the runoff following the land-disturbing activity, in combination with other existing stormwater runoff, will not exceed the design of the restored stormwater conveyance system nor result in instability of the system.

3. Concentrated stormwater flow to stable natural stormwater conveyance systems. The point of discharge releases stormwater into a natural stormwater conveyance system that is stable and, following the land-disturbing activity, (i) will not become unstable as a result of the discharge from the one-year 24-hour storm, and (ii) provides a peak flow rate from the one-year 24-hour storm calculated as follows or in accordance with another methodology that is demonstrated by the local program to achieve equivalent results and is approved by the board:

$Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{Pre-Developed}} * RV_{\text{Pre-Developed}}$ , where

$Q_{\text{Developed}}$  = The allowable peak flow rate of runoff from the developed site. [ Such peak flow rate must be less than or equal to  $Q_{\text{Pre-Developed}}$ . ]

$Q_{\text{Pre-Developed}}$  = The peak flow rate of runoff from the site in the predeveloped condition.

$RV_{\text{Pre-Developed}}$  = The volume of runoff from the site in the predeveloped condition.

$RV_{\text{Developed}}$  = The volume of runoff from the developed site.

4. [ Concentrated Except as set out in subdivision 5 of this subsection, concentrated ] stormwater flow to unstable natural stormwater conveyance systems. Where the point of discharge releases stormwater into a natural stormwater conveyance system that is unstable, stormwater runoff following a land-disturbing activity shall be released into a channel at or below a peak flow rate ( $Q_{\text{Developed}}$ ) based on the one-year 24-hour storm, calculated as follows or in accordance with another methodology that is demonstrated by the local program to achieve equivalent or more stringent results and is approved by the board:

$Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{Forested Good Pasture}} * RV_{\text{Forested Good Pasture}}$ , where

$Q_{\text{Developed}}$  = The allowable peak flow rate from the developed site. [ Such peak flow rate must be less than or equal to  $Q_{\text{Good Pasture}}$ . ]

$Q_{\text{Forested Good Pasture}}$  = The peak flow rate from the site in a [ forested good pasture ] condition.

$RV_{\text{Forested Good Pasture}}$  = The volume of runoff from the site in a [ forested good pasture ] condition.

$RV_{\text{Developed}}$  = The volume of runoff from the developed site.

[ However, in the case that the predeveloped condition is forested, [ both the peak flow rate and the volume of runoff from the developed site shall be held to ] the forested condition [ shall be utilized instead of the good pasture condition in all instances in the calculation above ] .

5. This subdivision shall apply to concentrated stormwater flow to unstable natural stormwater conveyance systems from (i) a land-disturbing activity less than five acres on prior developed lands, or (ii) a regulated land-disturbing activity less than one acre for new development. Where the point of discharge releases stormwater into a natural stormwater conveyance system that is unstable, stormwater runoff following a land-disturbing activity shall provide a peak flow rate from the one-year 24-hour storm, calculated as follows or in accordance with another methodology that is demonstrated by the local program to achieve equivalent or more stringent results and is approved by the board:

$Q_{\text{Developed}} * RV_{\text{Developed}} < Q_{\text{Pre-Developed}} * RV_{\text{Pre-Developed}}$ , where

$Q_{\text{Developed}}$  = The allowable peak flow rate from the developed site. Such peak flow rate must be less than  $Q_{\text{Pre-Developed}}$ .

$Q_{\text{Pre-Developed}}$  = The peak flow rate from the site in pre-development condition.

$RV_{\text{Pre-Developed}}$  = The volume of runoff from the site in pre-development condition.

$RV_{\text{Developed}}$  = The volume of runoff from the developed site. [ Such volume must be less than  $RV_{\text{Pre-Developed}}$ . ] ]

C. Flood protection. Concentrated stormwater flow shall be released into a stormwater conveyance system and shall meet one of the following criteria as demonstrated by use of accepted hydrologic and hydraulic methodologies:

1. Concentrated stormwater flow to manmade stormwater conveyance systems. The point of discharge releases stormwater into a manmade stormwater conveyance system that, following the land-disturbing activity, confines the postdevelopment peak flow rate from the 10-year 24-hour storm within the manmade stormwater conveyance system.

2. Concentrated stormwater flow to restored stormwater conveyance systems. The point of discharge releases stormwater into a stormwater conveyance system that (i) has been restored and is functioning as designed or (ii) will be restored. The applicant must demonstrate that the peak flow rate from the 10-year 24-hour storm following the land-disturbing activity will be confined within the system.

3. Concentrated stormwater flow to natural stormwater conveyance systems. The point of discharge releases stormwater into a natural stormwater conveyance system that currently does not flood during the 10-year 24-hour storm and, following the land-disturbing activity, confines the postdevelopment peak flow rate from the 10-year 24-hour storm within the system.

4. Concentrated stormwater flow to natural stormwater conveyance systems where localized flooding exists during the 10-year 24-hour storm. The point of discharge releases a postdevelopment peak flow rate for the 10-year 24-hour storm that shall not exceed the predevelopment peak flow rate from the 10-year 24-hour storm based on [ forested good pasture ] conditions [ , unless the

predeveloped condition is forested, in which case the peak flow rate from the developed site shall be held to the forested condition ].

5. [ ~~A local program may adopt alternate flood protection design criteria that (i) achieve equivalent or more stringent results, (ii) are based upon geographic, land use, topographic, geologic, or other downstream conveyance factors, and (iii) are approved by the board.~~ Subdivision C 4 of this subsection notwithstanding, this subdivision shall apply to concentrated stormwater flow to natural stormwater conveyance systems where localized flooding exists during the 10-year 24-hour storm from (i) a land-disturbing activity less than five acres on prior developed lands, or (ii) a regulated land-disturbing activity less than one acre for new development. The point of discharge releases a postdevelopment peak flow rate for the 10-year 24-hour storm that is less than the predevelopment peak flow rate from the 10-year 24-hour storm. ]

D. One percent rule. If either of the following criteria are met, subsections [ A B ] and [ B C ] of this section do not apply [ , nor is the analysis of subsection H required ] :

1. Based on area. Prior to any land disturbance, the site's contributing drainage area to a point of discharge from the site is less than or equal to 1.0% of the total watershed area draining to that point of discharge; or

2. Based on peak flow rate. Based on the postdevelopment land cover conditions prior to the implementation of any stormwater quantity control measures, the development of the site results in an increase in the peak flow rate from the one-year 24-hour storm that is less than 1.0% of the existing peak flow rate from the one-year 24-hour storm generated by the total watershed area draining to that point of discharge.

E. Increased volumes of sheet flow resulting from pervious or disconnected impervious areas, or from physical spreading of concentrated flow through level spreaders, must be identified and evaluated for potential impacts on down gradient properties or resources. Increased volumes of sheet flow that will cause or contribute to erosion, sedimentation, or flooding of down gradient properties or resources shall be diverted to a [ ~~detention~~ stormwater management ] facility or a stormwater conveyance system that conveys the runoff without causing down gradient erosion, sedimentation, or flooding. If all runoff from the site is sheet flow and the conditions of this subsection are met, no further water quantity controls are required.

F. For purposes of computing predevelopment runoff from prior developed sites, all pervious lands on the site shall be assumed to be in good hydrologic condition in accordance with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) standards, regardless of conditions existing at the time of computation. Predevelopment runoff calculations utilizing other hydrologic conditions may be utilized provided that it is demonstrated to and approved by the local program that actual site conditions warrant such considerations.

G. Predevelopment runoff characteristics and site hydrology shall be verified by site inspections, topographic surveys, available soil mapping or studies, and calculations consistent with good engineering practices [ ~~in accordance with guidance. Guidance~~ ] provided in the Virginia Stormwater Management Handbook [ ~~and by the qualifying local program shall be considered appropriate standards~~ ].

H. Except where the compliance options under subdivisions B 4 [ ~~and 5~~ ] and C 4 [ ~~and 5~~ ] of this section are utilized, flooding and channel erosion impacts to stormwater conveyance systems shall be analyzed for each point of discharge in accordance with

channel analysis guidance provided in Technical Bulletin # 1, Stream Channel Erosion Control, or in accordance with more stringent channel analysis guidance established by the qualifying local program and provided to the department. Such analysis shall include estimates of runoff from the developed site and the entire upstream watershed that contributes to that point of discharge. Good engineering practices and calculations in accordance with department guidance shall be used to evaluate postdevelopment runoff characteristics and site hydrology, and flooding and channel erosion impacts.

If the downstream owner or owners refuse to give permission to access the property for the collection of data, evidence of this refusal shall be given and arrangements made satisfactory to the local program to provide an alternative method for the collection of data to complete the analysis, such as through the use of photos, aerial surveys, "as built" plans, topographic maps, soils maps, and any other relevant information.

**[ 4VAC50-60-69. Offsite compliance options.**

A. A qualifying local program shall have the authority to consider the use of the following offsite compliance options:

1. If a comprehensive watershed stormwater management plan has been adopted pursuant to 4VAC50-60-92 for the local watershed within which a project is located, then the qualifying local program may allow offsite controls in accordance with the plan to achieve the water quality reductions, quantity reductions, or both required for a site by this chapter. Such offsite controls shall achieve the required reductions either completely offsite in accordance with the plan or by a combination of on site and offsite controls.

2. A pro rata fee in accordance with § 15.2-2243 of the Code of Virginia or similar [ local ] funding mechanism through which the water quality and quantity reductions required for a site by this chapter may be achieved by the payment of a fee sufficient to fund improvements necessary to adequately achieve offsite reductions equal to or greater than those that would otherwise be required for the site.

3. The nonpoint nutrient offset program established by § 10.1-603.8:1 of the Code of Virginia.

4. Where no comprehensive watershed stormwater management plan or pro rata fee exists, or where a qualifying local program otherwise elects to allow the use of this subdivision, offsite stormwater management facilities may be used by the operator of a land-disturbing activity to meet the water quality reductions required for a site by this chapter provided:

a. The operator demonstrates to the satisfaction of the local program that offsite reductions equal to or greater than those that would otherwise be required for the site are achieved;

b. The operator demonstrates to the satisfaction of the local program that the development's runoff and the runoff from any offsite treatment area shall be controlled in accordance with 4VAC50-60-66;

c. Offsite stormwater management facilities must be located within the HUC or within the upstream HUCs in the local watershed that the land-disturbing activity directly discharges to or within the same watershed, as determined by the local program; and

d. The operator demonstrates to the satisfaction of the local program that the right to utilize the offsite area and any necessary easements have been

obtained and maintenance agreements for the stormwater management facilities have been established pursuant to 4VAC50-60-124.

B. [ Should the board establish by regulatory action a standard more stringent than 0.45 pounds per acre per year in the Chesapeake Bay watershed, the offsite compliance option provided by this subsection shall be available as follows. ] Where the offsite options of subsection A of this section are not available for use, where the fee established by a qualifying local program to offset a pound of phosphorus onsite pursuant to subdivision A 2 exceeds \$23,900, or where a qualifying local program otherwise elects to allow the use of this subsection, offsite compliance may be achieved through a payment in accordance with the following:

1. When the land-disturbing activity is in an urban development area the payment shall be \$15,000 per pound of phosphorus and shall be calculated based on the poundage not treated on site. In all other cases the payment shall be \$23,900 per pound of phosphorus. Payment amounts shall be determined based upon the nearest 0.01 of a pound of phosphorus.

2. All payments shall be deposited and utilized in accordance with the following:

a. Payments shall be made prior to commencement of the land-disturbing activity and shall be deposited to the Virginia Stormwater Management Fund and held in a subaccount.

b. The board shall establish priorities for the use of these funds by December 1 of each year. Payments held in the fund shall be promptly applied to ensure that nutrient reduction practices are being implemented. Priorities for the funds shall be established in accordance with the following:

(1) At least 50% of the funds shall be utilized for projects to address local stormwater quality issues related to the impacts of development activities including but not limited to urban retrofits, urban stream restorations, and reduction of impervious areas.

(2) Priority use for the remaining funds shall be for the acquisition of certified nonpoint nutrient offsets at a rate not to exceed \$23,900 per pound of phosphorus. Any remaining funds shall be utilized to fund long-term contracts for agricultural best management practices no less than 20 years in duration or long-term best management practices including but not limited to stream fencing, alternative water supplies, and riparian buffers in accordance with practice standards established within the Virginia Agricultural BMP Cost Share Program administered by the department.

(3) In establishing priorities, the board shall consider targeting equivalent reductions in the same local watershed as where the payment came from; implementing urban practices/retrofits that address TMDLs; securing permanent practices; and achieving measurable reductions. When purchasing agricultural best management practices, the board shall consider purchasing practices beyond the baseline established under the Chesapeake Bay Watershed Nutrient Credit Exchange Program (§ 62.1-44.19:12 et seq. of the Code of Virginia).

c. The department shall track the payment amount, the associated poundage of phosphorus purchased, the jurisdiction where the payment originated, the regulated MS4 name, if any, and the HUC for the land-disturbing activity. The department shall additionally track the annual expenditure of the funds

including the locality and regulated MS4 name, if any, where the moneys are expended, the associated poundage of phosphorus reduced, and the cost per pound for phosphorus reductions associated with the nutrient reduction practices.

d. The department may annually utilize up to 6.0% of the payments to administer the stormwater management program.

e. The board shall periodically review the payment amount, at least every five years or in conjunction with the development of a new construction general permit, and shall evaluate the performance of the fund and the sufficiency of the payment rate in achieving the needed offsite pollution reductions. The board shall adjust the payment amount based upon this analysis.

3. Utilization of a payment to achieve compliance with the water quality technical criteria shall be subject to the following limitations:

a. A new development project disturbing greater than or equal to one acre in the Chesapeake Bay watershed must reduce its phosphorus discharge to a level of 0.45 pounds per acre per year of phosphorus on site, or less, and then may achieve all or a portion of the remaining required phosphorus reductions through a payment.

b. A new development project disturbing less than one acre in the Chesapeake Bay watershed may achieve all necessary phosphorus reductions through a payment.

c. A new development project outside of the Chesapeake Bay watershed must achieve all necessary phosphorus reductions on site.

d. Development on prior developed lands disturbing greater than or equal to one acre must achieve at least a 10% reduction from the predevelopment total phosphorus load on site and then may achieve the remaining required phosphorus reductions through a payment.

e. Development on prior developed lands disturbing less than one acre may achieve all necessary phosphorus reductions through a payment.

4. Nitrogen or other pollutant reductions achieved through payments into the fund must be retired and shall not be made available to other parties.

C. Where the department is administering a local program, only offsite options set out in subdivisions A 3 and A 4 [ . ] and [ . when available ] subsection B of this section shall be available. ]

#### **4VAC50-60-70. Stream channel erosion. (Repealed.)**

~~A. Properties and receiving waterways downstream of any land disturbing activity shall 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 this section.~~

~~B. The permit issuing authority shall require compliance with subdivision 19 of 4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.~~

~~C. The permit issuing authority may determine that some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow conditions (top of bank) brought on by land disturbing activities. Therefore,~~

~~in lieu of the reduction of the two-year post-developed peak rate of runoff as required in subsection B of this section, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the one-year, 24-hour duration storm.~~

~~D. In addition to subsections B and C of this section permit-issuing authorities, by local ordinance may, or the board by state regulation may, adopt more stringent channel analysis criteria or design standards to ensure that the natural level of channel erosion, to the maximum extent practicable, will not increase due to the land-disturbing activities. These criteria may include, but are not limited to, the following:~~

- ~~1. Criteria and procedures for channel analysis and classification.~~
- ~~2. Procedures for channel data collection.~~
- ~~3. Criteria and procedures for the determination of the magnitude and frequency of natural sediment transport loads.~~
- ~~4. Criteria for the selection of proposed natural or man-made channel linings.~~

**4VAC50-60-72. Design storms and hydrologic methods.**

A. Unless otherwise specified, the prescribed design storms are the one-year, two-year, and 10-year 24-hour storms using the site-specific rainfall precipitation frequency data recommended by the U.S. National Oceanic and Atmospheric Administration (NOAA) Atlas 14. Partial duration time series shall be used for the precipitation data.

B. ~~[ All~~ Unless otherwise specified, ~~all~~ ] hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.

C. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) synthetic 24-hour rainfall distribution and models, including, but not limited to TR-55 and TR-20; hydrologic and hydraulic methods developed by the U.S. Army Corps of Engineers; or other standard hydrologic and hydraulic methods, shall be used to conduct the analyses described in this part.

D. The local program may allow for the use of the Rational Method for evaluating peak discharges or the Modified Rational Method for evaluating volumetric flows to stormwater conveyances with drainage areas of 200 acres or less.

**4VAC50-60-74. Stormwater harvesting.**

In accordance with § 10.1-603.4 of the Code of Virginia, stormwater harvesting is encouraged for the purposes of landscape irrigation systems, fire protection systems, flushing water closets and urinals, and other water handling systems to the extent such systems are consistent with federal, state, and local regulatory authorities.

**4VAC50-60-76. Linear development projects.**

Unless exempt pursuant to § 10.1-603.8 B of the Code of Virginia, linear development projects shall control postdevelopment stormwater runoff in accordance with a site-specific stormwater management plan or a comprehensive watershed stormwater management plan developed in accordance with these regulations.

**4VAC50-60-80. Flooding. (Repealed.)**

~~A. Downstream properties and waterways shall be protected from damages from localized flooding 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 this section.~~

~~B. 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.~~

~~C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate design criteria based upon geographic, land use, topographic, geologic factors or other downstream conveyance factors as appropriate.~~

~~D. Linear development projects shall not be required to control post-developed stormwater runoff for flooding, except in accordance with a watershed or regional stormwater management plan.~~

**4VAC50-60-85. Stormwater management impoundment structures or facilities.**

A. Construction of stormwater management impoundment structures or facilities within tidal or nontidal wetlands and perennial streams is not recommended.

B. Construction of stormwater management impoundment structures or facilities within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain is not recommended.

C. Stormwater management wet ponds and extended detention ponds that are not covered by the Impounding Structure Regulations (4VAC50-20) shall [ , at a minimum, ] be engineered for structural integrity [ and spillway design ] for the 100-year storm event.

D. Construction of stormwater management impoundment structures or facilities may occur in karst areas only after a [ geological ] study [ of the geology and hydrology ] of the area has been conducted to determine the presence or absence of karst features that may be impacted by stormwater runoff and BMP placement.

E. Discharge of stormwater runoff to a karst feature shall meet the water quality criteria set out in 4VAC50-60-63 and the water quantity criteria set out in 4VAC50-60-66. Permanent stormwater management impoundment structures or facilities shall only be constructed in karst features after completion of a geotechnical investigation that identifies any necessary modifications to the BMP to ensure its structural integrity and maintain its water quality and quantity efficiencies. The person responsible for the land-disturbing activity is encouraged to screen for known existence of heritage resources in the karst features. Any Class V Underground Injection Control Well registration statements for stormwater discharges to improved sinkholes shall be included in the SWPPP.

**4VAC50-60-90. Regional (watershed-wide) stormwater management plans. (Repealed.)**

~~This section enables localities to develop regional stormwater management plans. State agencies intending to develop large tracts of land such as campuses or prison compounds are encouraged to develop regional plans where practical.~~

~~The objective of a regional stormwater management plan is to address the stormwater management concerns in a given watershed with greater economy and efficiency by installing regional stormwater management facilities versus individual, site-specific facilities. The result will be fewer stormwater management facilities to design, build and maintain in the affected watershed. It is also anticipated that regional stormwater management facilities will not only help mitigate the impacts of new development, but may also provide for the remediation of erosion, flooding or water quality problems caused by existing development within the given watershed.~~

~~If developed, a regional plan shall, at a minimum, address the following:~~

- ~~1. The specific stormwater management issues within the targeted watersheds.~~

2. ~~The technical criteria in 4VAC50-60-40 through 4VAC50-60-80 as needed based on subdivision 1 of this section.~~
3. ~~The implications of any local comprehensive plans, zoning requirements, local ordinances pursuant to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, and other planning documents.~~
4. ~~Opportunities for financing a watershed plan through cost sharing with neighboring agencies or localities, implementation of regional stormwater utility fees, etc.~~
5. ~~Maintenance of the selected stormwater management facilities.~~
6. ~~Future expansion of the selected stormwater management facilities in the event that development exceeds the anticipated level.~~

**[ 4VAC50-60-92. Comprehensive watershed stormwater management plans.**

A. Qualifying local programs may develop comprehensive watershed stormwater management plans to be approved by the department that meet the water quality objectives, quantity objectives, or both of this chapter:

1. Such plans shall ensure that offsite reductions equal to or greater than those that would be required on each contributing land-disturbing 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 qualifying local program to prevent downstream erosion and flooding.
2. If the land use assumptions upon which the plan was based change or if any other amendments are deemed necessary by the qualifying local program, the qualifying local program shall provide plan amendments to the board for review and approval.
3. During the plan's implementation, the qualifying local program shall account for nutrient reductions accredited to the BMPs specified in the plan.
4. State and federal agencies may develop comprehensive stormwater management plans, and may participate in locality-developed comprehensive watershed stormwater management plans where practicable and permitted by the qualifying local program. ]

**4VAC50-60-93. [ Stormwater management plan development. (Reserved.) ]**

[ A. A stormwater management plan for a land-disturbing activity shall apply these stormwater management technical criteria to the entire land-disturbing activity.

B. Individual lots or planned phases of developments shall not be considered separate land-disturbing activities, but rather the entire development shall be considered a single land-disturbing activity.

C. The stormwater management plan shall consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff. ]

**[ Part II B**

**Stormwater Management Program Technical Criteria: Grandfathered Projects**

**4VAC50-60-94. Applicability.**

This part specifies the technical criteria for regulated land-disturbing activities that are not subject to the technical criteria of Part II A in accordance with 4VAC 50-60-48.

**4VAC50-60-95. General.**

A. Determination of flooding and channel erosion impacts to receiving streams due to land-disturbing activities shall be measured at each point of discharge from the land disturbance and such determination shall include any runoff from the balance of the watershed that also contributes to that point of discharge.

B. The specified design storms shall be defined as either a 24-hour storm using the rainfall distribution recommended by the U.S. Department 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.

C. For purposes of computing runoff, all pervious lands in the site shall be assumed prior to development to be in good condition (if the lands are pastures, lawns, or parks), with good cover (if the lands are woods), or with conservation treatment (if the lands are cultivated); regardless of conditions existing at the time of computation.

D. Construction of stormwater management facilities or modifications to channels shall comply with all applicable laws and regulations. Evidence of approval of all necessary permits shall be presented.

E. Impounding structures that are not covered by the Impounding Structure Regulations (4VAC50-20) shall be engineered for structural integrity during the 100-year storm event.

F. Predevelopment and postdevelopment runoff rates shall be verified by calculations that are consistent with good engineering practices.

G. Outflows from a stormwater management facility or stormwater conveyance system shall be discharged to an adequate channel.

H. Proposed residential, commercial, or industrial subdivisions shall apply these stormwater management criteria to the land disturbance as a whole. Individual lots in new subdivisions shall not be considered separate land-disturbing activities, but rather the entire subdivision shall be considered a single land development project. Hydrologic parameters shall reflect the ultimate land disturbance and shall be used in all engineering calculations.

I. All stormwater management facilities shall have an inspection and maintenance plan that identifies the owner and the responsible party for carrying out the inspection and maintenance plan.

J. Construction of stormwater management impoundment structures within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater management facility construction shall be in compliance with all applicable regulations under the National Flood Insurance Program, 44 CFR Part 59.

K. Natural channel characteristics shall be preserved to the maximum extent practicable.

L. Land-disturbing activities shall comply with the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Code of Virginia) and attendant regulations.

M. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed may be allowed in resource protection areas defined in the Chesapeake Bay Preservation Act, provided that (i) the local government has conclusively established that the location of the facility within the resource protection area is the optimum location; (ii) the size of the

facility is the minimum necessary to provide necessary flood control, stormwater treatment, or both; and (iii) the facility must be consistent with a stormwater management program that has been approved by the board, the Chesapeake Bay Local Assistance Board, or the Board of Conservation and Recreation. ]

**4VAC50-60-96. [ Comprehensive watershed stormwater management plans Water quality ].**

~~[ A. Local programs may develop comprehensive watershed stormwater management plans to be approved by the department that meet the water quality objectives, quantity objectives, or both of this chapter:~~

~~1. Such plans shall ensure that offsite reductions equal to or greater than those that would be required on each contributing land disturbing 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 program to prevent downstream erosion and flooding.~~

~~2. If the land use assumptions upon which the plan was based change or if any other amendments are deemed necessary by the local program, the local program shall provide plan amendments to the board for review and approval.~~

~~3. During the plan's implementation, the local program shall account for nutrient reductions accredited to the BMPs specified in the plan.~~

~~4. State and federal agencies may participate in comprehensive watershed stormwater management plans where practicable and permitted by the local program. A. Compliance with the water quality criteria may be achieved by applying the performance-based criteria or the technology-based criteria to either the site or a planning area. ]~~

~~B. [ If the qualifying local program allows for a pro rata fee in accordance with § 15.2-2243 of the Code of Virginia, then the reductions required for a site by this chapter may be achieved by the payment of a pro rata fee sufficient to fund improvements necessary to adequately achieve those requirements in accordance with that section of the Code of Virginia and this chapter. Performance-based criteria. For land-disturbing activities, the calculated postdevelopment nonpoint source pollutant runoff load shall be compared to the calculated predevelopment load based upon the average land cover condition or the existing site condition. A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in Table 2 of this section to effectively reduce the pollutant load to the required level based upon the following four applicable land development situations for which the performance criteria apply:~~

~~1. Situation 1 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover that is less than the average land cover condition.~~

~~Requirement: No reduction in the after disturbance pollutant discharge is required.~~

~~2. Situation 2 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover that is greater than the average land cover condition.~~

~~Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the average land cover condition.~~

3. Situation 3 consists of land-disturbing activities where the existing percent impervious cover is greater than the average land cover condition.

Requirement: The pollutant discharge after disturbance shall not exceed (i) the pollutant discharge based on existing conditions less 10% or (ii) the pollutant discharge based on the average land cover condition, whichever is greater.

4. Situation 4 consists of land-disturbing activities where the existing percent impervious cover is served by an existing stormwater management BMP that addresses water quality.

Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the existing percent impervious cover while served by the existing BMP. The existing BMP shall be shown to have been designed and constructed in accordance with proper design standards and specifications, and to be in proper functioning condition.

C. Technology-based criteria. For land-disturbing activities, the postdeveloped stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the postdeveloped condition percent impervious cover as specified in Table 2 of this section. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in Table 2 or those found in 4VAC50-60-65. Design standards and specifications for the BMPs in Table 2 that meet the required target pollutant removal efficiency are available in the 1990 Virginia Stormwater Management Handbook. Other approved BMPs available on the Virginia Stormwater BMP Clearinghouse website at <http://www.vwrrc.vt.edu/swc> may also be utilized.

Table 2\*

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed Swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2 x WQ Vol)	35%	
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	38-66%
Bioretention filter	50%	
Extended detention-enhanced	50%	
Retention basin II (4 x WQ Vol)	50%	
Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	67-100%
Infiltration (2 x WQ Vol)	65%	
Retention basin III (4 x WQ Vol with aquatic bench)	65%	

\*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the department. Innovative or alternate BMPs not included in this table that target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the department.

**4VAC50-60-97. Stream channel erosion.**

A. Properties and receiving waterways downstream of any land-disturbing activity shall 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 this section.

B. The permit-issuing authority shall require compliance with subdivision 19 of 4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.

C. The permit-issuing authority may determine that some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow conditions (top of bank) brought on by land-disturbing activities. Therefore, in lieu of the reduction of the two-year postdeveloped peak rate of runoff as required in subsection B of this section, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the one-year, 24-hour duration storm.

D. In addition to subsections B and C of this section, permit-issuing authorities, by local ordinance may, or the board by state regulation may, adopt more stringent channel analysis criteria or design standards to ensure that the natural level of channel erosion, to the maximum extent practicable, will not increase due to the land-disturbing activities. These criteria may include, but are not limited to, the following:

1. Criteria and procedures for channel analysis and classification.
2. Procedures for channel data collection.
3. Criteria and procedures for the determination of the magnitude and frequency of natural sediment transport loads.
4. Criteria for the selection of proposed natural or manmade channel linings.

**4VAC50-60-98. Flooding.**

A. Downstream properties and waterways shall be protected from damages from localized flooding 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 this section.

B. The 10-year postdeveloped peak rate of runoff from the development site shall not exceed the 10-year predeveloped peak rate of runoff.

C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate design criteria based upon geographic, land use, topographic, geologic factors, or other downstream conveyance factors as appropriate.

D. Linear development projects shall not be required to control postdeveloped stormwater runoff for flooding, except in accordance with a watershed or regional stormwater management plan.

**4VAC50-60-99. Regional [ (watershedwide) watershed-wide ] stormwater management plans.**

Water quality and where allowed, water quantity, may be achieved in accordance with sections 4VAC50-60-69 and 4VAC50-60-92. ]

Part III

Local Programs

**4VAC50-60-100. Applicability. (Repealed.)**

~~This part specifies technical criteria, minimum ordinance requirements, and administrative procedures for all localities operating local stormwater management programs.~~

Part III A

Local Programs

**4VAC50-60-102. Authority and applicability.**

If a locality has adopted a local stormwater management program in accordance with the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia) and the board has deemed such program adoption consistent with the Virginia Stormwater Management Act and these regulations in accordance with § 10.1-603.3 F of the Code of Virginia, the board may authorize a locality to administer a qualifying local program. Pursuant to § 10.1-603.4, the board is required to establish standards and procedures for such an authorization.

This part specifies the minimum technical criteria and the local government ordinance requirements for a local program to be considered a qualifying local program. Such criteria include but are not limited to administration, plan review, issuance of coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities, inspection, and enforcement.

**4VAC50-60-104. Technical criteria for qualifying local programs.**

A. All qualifying local programs shall require compliance with the provisions of [ ~~Part II~~ Part II A and Part II B as applicable ] (4VAC50-60-40 et seq.) of this chapter unless an exception is granted pursuant to 4VAC50-60-122 and shall comply with the requirements of 4VAC50-60-460 L.

B. When a locality operating a qualifying local program has adopted requirements more stringent than those imposed by this chapter in accordance with § 10.1-603.7 of the Code of Virginia or implemented a comprehensive stormwater management plan, the department shall consider such requirements in its review of state projects within that locality in accordance with Part IV (4VAC50-60-160 et seq.) of this chapter.

C. Nothing in this part shall be construed as authorizing a locality to regulate, or to require prior approval by the locality for, a state project.

**4VAC50-60-106. Qualifying local program administrative requirements.**

A. A qualifying local program shall provide for the following:

1. Identification of the authority authorizing coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities, the plan reviewing authority, the plan approving authority, the inspection authority, and the enforcement authority;

2. Technical criteria to be used in the qualifying local program;

3. Procedures for the submission and approval of plans;

4. Inspection and monitoring of land-disturbing activities covered by a permit for compliance;

5. [~~Procedures or policies for long-term inspection and maintenance of stormwater management facilities Enforcement~~]; and

6. [~~Enforcement Procedures or policies for long-term inspection and maintenance of stormwater management facilities~~].

B. A [~~locality qualifying local program~~] shall adopt an ordinance(s) that incorporates the components set out in [~~subdivisions 1 through 5 of~~] subsection A of this section and consent to follow procedures provided by the department for the issuance, denial, revocation, termination, reissuance, transfer, or modifications of coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.

C. A qualifying local program shall report to the department information related to the administration and implementation of the qualifying local program in accordance with 4VAC50-60-126.

D. A qualifying local program may require the submission of a reasonable performance bond or other financial surety and provide for the release of such sureties in accordance with the criteria set forth in § 10.1-603.8 of the Code of Virginia.

#### **4VAC50-60-108. Qualifying local program stormwater management plan review.**

A. A qualifying local program shall require stormwater management plans to be submitted for review and be approved prior to commencement of land-disturbing activities. [~~In addition to the other requirements of this chapter, a stormwater management plan must be developed in accordance with the following:~~

1. A stormwater management plan for a land-disturbing activity shall apply the stormwater management technical criteria to the entire land-disturbing activity.

2. At the discretion of the qualifying local program, individual lots or planned phases of developments shall not be considered separate land-disturbing activities, but rather the entire development shall be considered a single land-disturbing activity.

3. The stormwater management plan shall consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff. ]

B. A qualifying local program shall approve or disapprove a stormwater management plan and required accompanying information according to the following:

1. Stormwater management plan review shall begin upon submission of a complete plan. A complete plan shall include the following elements:

a. The location of all points of stormwater discharge, receiving surface waters or karst features into which the stormwater discharges, and predevelopment and postdevelopment conditions for drainage areas, including final drainage patterns and changes to existing contours;

b. Contact information including the name, address, and telephone number of the property owner and the tax reference number and parcel number of the property or properties affected;

c. A narrative that includes a description of current site conditions and proposed development and final site conditions, including proposed stormwater management facilities and the mechanism, including an

identification of financially responsible parties, through which the facilities will be operated and maintained during and after construction activity;

d. The location and the design of the proposed stormwater management facilities;

e. Information identifying the hydrologic characteristics and structural properties of soils utilized with the installation of stormwater management facilities;

f. Hydrologic and hydraulic computations of the predevelopment and postdevelopment runoff conditions for the required design storms;

g. Good engineering practices and calculations verifying compliance with the water quality and quantity requirements of this chapter;

h. A map or maps of the site that depicts the topography of the site and includes:

(1) All contributing drainage areas;

(2) Receiving surface waters or karst features into which stormwater will be discharged;

(3) Existing streams, ponds, culverts, ditches, wetlands, and other water bodies;

(4) Soil types, geologic formations, forest cover, and other vegetative areas;

(5) Current land use including existing structures, roads, and locations of known utilities and easements;

(6) Sufficient information on adjoining parcels to assess the impacts of stormwater from the site;

(7) The limits of clearing and grading, and the proposed drainage patterns on the site;

(8) Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and

(9) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements.

i. [ No more than ] 50% of the required [ base ] fee in accordance with 4VAC50-60-820, and the required fee form must have been submitted.

2. Elements of the stormwater management plans shall be appropriately sealed and signed by a professional in adherence to all minimum standards and requirements pertaining to the practice of that profession in accordance with Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia and attendant regulations.

3. Completeness of a plan and required accompanying information shall be determined by the qualifying local program, and the applicant shall be notified of any determination, within 15 calendar days of receipt.

a. If within those 15 days the plan is deemed to be incomplete based on the criteria set out in this subsection, the applicant shall be notified in writing of the reasons the plan is deemed incomplete.

b. If a determination of completeness is made and communicated to the applicant within the 15 calendar days, an additional 60 calendar days from the date of the communication will be allowed for the review of the plan.

c. If a determination of completeness is not made and communicated to the applicant within the 15 calendar days, the plan shall be deemed complete as of the date of submission and a total of 60 calendar days from the date of submission will be allowed for the review of the plan.

d. The qualifying local program shall act within 45 days on any plan that has been previously disapproved and resubmitted.

4. During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the person responsible for the land-disturbing activity or his designated agent. If the plan is not approved, the reasons for not approving the plan shall be provided in writing. Approval or denial shall be based on the plan's compliance with the requirements of this chapter and of the qualifying local program. [ Where available to the applicant, electronic communication may be considered communication in writing. ]

5. If a plan meeting all requirements of this chapter and of the qualifying local program is submitted and no action is taken within the time specified above, the plan shall be deemed approved.

C. Notwithstanding the requirements of subsection A of this section, if allowed by the qualifying local program, an initial stormwater management plan may be submitted for review and approval when it is accompanied by an erosion and sediment control plan, preliminary stormwater design for the current and future site work, fee form, and [ no more than ] 50% of the [ base ] fee required by 4VAC50-60-820. Such plans shall be limited to the initial clearing and grading of the site unless otherwise allowed by the qualifying local program. Approval by the qualifying local program of an initial plan does not supersede the need for the submittal and approval of a complete stormwater management plan and the updating of the SWPPP prior to the commencement of activities beyond initial clearing and grading and other activities approved by the local program. The initial plan shall include information detailed in subsection B of this section to the extent required by the qualifying local program and such other information as may be required by the qualifying local program.

D. Each approved plan may be modified in accordance with the following:

1. Modifications to an approved stormwater management plan shall be allowed only after review and written approval by the qualifying local program. The qualifying local program shall have 60 calendar days to respond in writing either approving or disapproving such requests.

2. Based on an inspection, the qualifying local program may require amendments to the approved stormwater management plan to address the noted deficiencies and notify the permittee of the required modifications.

#### **4VAC50-60-110. Technical criteria for local programs. (Repealed.)**

~~A. All local stormwater management programs shall comply with the general technical criteria as outlined in 4VAC50-60-50.~~

~~B. All local stormwater management programs which contain provisions for stormwater runoff quality shall comply with 4VAC50-60-60. A locality may establish criteria for selecting either the site or a planning area on which to apply the water quality~~

~~criteria. A locality may opt to calculate actual watershed specific or locality wide values for the average land cover condition based upon:~~

- ~~1. Existing land use data at time of local Chesapeake Bay Preservation Act Program or department stormwater management program adoption, whichever was adopted first;~~
- ~~2. Watershed or locality size; and~~
- ~~3. Determination of equivalent values of impervious cover for nonurban land uses which contribute nonpoint source pollution, such as agriculture, forest, etc.~~

~~C. All local stormwater management programs which contain provisions for stream channel erosion shall comply with 4VAC50-60-70.~~

~~D. All local stormwater management programs must contain provisions for flooding and shall comply with 4VAC50-60-80.~~

~~E. All local stormwater management programs which contain provisions for watershed or regional stormwater management plans shall comply with 4VAC50-60-110.~~

~~F. A locality that has adopted more stringent requirements or implemented a regional (watershed-wide) stormwater management plan may request, in writing, that the department consider these requirements in its review of state projects within that locality.~~

~~G. Nothing in this part shall be construed as authorizing a locality to regulate, or to require prior approval by the locality for, a state project.~~

**4VAC50-60-112. Qualifying local program authorization of coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.**

A. Coverage shall be authorized by the qualifying local program under the VSMP General Permit for Discharges of Stormwater from Construction Activities in accordance with the following:

1. The applicant must have an approved initial stormwater management plan or an approved stormwater management plan for the land-disturbing activity.
2. The applicant must have submitted proposed right-of-entry agreements or easements from the owner for purposes of inspection and maintenance and proposed maintenance agreements, including inspection schedules, [ where required ] in accordance with 4VAC50-60-124.
3. The applicant must have an approved registration statement for the VSMP General Permit for Discharges of Stormwater from Construction Activities.
4. The applicant must have submitted the required fee form and total fee required by 4VAC50-60-820.
5. Applicants submitting registration statements deemed to be incomplete must be notified within 15 working days of receipt by the qualifying local program that the registration statement is not complete and be notified (i) of what material needs to be submitted to complete the registration statement, and (ii) that the land-disturbing activity does not have coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.

B. Coverage or termination of coverage shall be authorized through a standardized database or other method provided by the department. Such database shall include, at a minimum, permit number, operator name, activity name, acres disturbed, date of permit coverage, and site address and location as well as date of termination.

C. Coverage information pertaining to the VSMP General Permit for Discharges of Stormwater from Construction Activities shall be reported to the department in accordance with 4VAC50-60-126 by the qualifying local program.

D. The applicant shall be notified of authorization of permit coverage by the qualifying local program.

**4VAC50-60-114. Inspections.**

A. The qualifying local program or its designee shall inspect the land-disturbing activity during construction for compliance with the VSMP General Permit for Discharges of Stormwater from Construction Activities.

B. The person responsible for the development project or their designated agent shall submit to a qualifying local program a construction record drawing for permanent stormwater management facilities, appropriately sealed, and signed by a professional in accordance with all minimum standards and requirements pertaining to the practice of that profession pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 of the Code of Virginia and attendant regulations, certifying that the stormwater management facilities have been constructed in accordance with the approved plan. The qualifying local program shall have the construction record drawing and certification on file prior to the release of the portion of [ the any ] performance bond or surety associated with the stormwater management facility. [ The qualifying local program may elect not to require construction record drawings for stormwater management facilities for which maintenance agreements are not required pursuant to 4VAC50-60-124. ]

C. The [ owners owner ] of [ a ] stormwater management [ facilities facility for which a maintenance agreement is required pursuant to 4VAC50-60-124 ] shall be required to conduct inspections in accordance with an inspection schedule in [ a the ] recorded maintenance agreement, and shall submit written inspection and maintenance reports to the qualifying local program [ upon request ]. Such reports, if consistent with a board-approved inspection program established in subsection [ D E ] of this section, may be utilized by the qualifying local program if the inspection is conducted by a person who is licensed as a professional engineer, architect, [ certified ] landscape architect, or land surveyor pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 or who holds a certificate of competence from the board. The reports, if so utilized, must be kept on file with the qualifying local program [ . ]

D. A qualifying local program shall [ develop a strategy for addressing maintenance of stormwater management facilities designed to treat stormwater runoff [ solely primarily ] from an individual residential lot on which they are located. Such a strategy may include periodic inspections, homeowner outreach and education, or other method targeted at promoting the long-term maintenance of such facilities. Such facilities shall not be subject to the requirement for an inspection to be conducted by the qualifying local program every five years contained within subsection E of this section.

E. A qualifying local program shall ] establish an inspection program that ensures that the stormwater management facilities are being maintained as designed. Any inspection program shall be:

1. Approved by the board prior to implementation;
2. Established in writing;
3. Based on a system of priorities that takes into consideration the purpose and type of the facility, ownership and the existence of a recorded maintenance

agreement and inspection schedule [ where required ] , the contributing drainage area, and downstream conditions;

4. Demonstrated to be an enforceable inspection program that meets the intent of the regulations and ensures that each stormwater management facility is inspected by the qualifying local program or its designee, not to include the owner, except as provided in [ subsection subsections ] C [ and D ] of this section, at least every five years; and

5. Documented by inspection records.

[ E. F. ] Inspection reports shall be generated and kept on file in accordance with 4VAC50-60-126 for all stormwater management facilities inspected by the qualifying local program.

**4VAC50-60-116. Qualifying local program enforcement.**

A. A qualifying local program may incorporate the following components:

1. Informal and formal administrative enforcement procedures including:

a. Verbal warnings and inspection reports;

b. Notices of corrective action;

c. Consent special orders and civil charges in accordance with subdivision 7 of § 10.1-603.2:1 and § 10.1-603.14 D 2 of the Code of Virginia;

d. Notices to comply in accordance with § 10.1-603.11 of the Code of Virginia;

e. Special orders in accordance with subdivision 7 of § 10.1-603.2:1 of the Code of Virginia;

f. Emergency special orders in accordance with subdivision 7 of § 10.1-603.2:1 of the Code of Virginia; and

g. Public notice and comment periods pursuant to 4VAC50-60-660.

2. Civil and criminal judicial enforcement procedures including:

a. Schedule of civil penalties set out in subsection D of this section;

b. Criminal penalties in accordance with § 10.1-603.14 B and C of the Code of Virginia; and

c. Injunctions in accordance with §§ 10.1-603.12:4, 10.1-603.2:1 and 10.1-603.14 D 1 of the Code of Virginia.

B. A qualifying local program shall develop policies and procedures that outline the steps to be taken regarding enforcement actions under the Stormwater Management Act and attendant regulations and the local ordinance.

C. A qualifying local program may utilize the department's Stormwater Management Enforcement Manual as guidance in establishing policies and procedures.

D. A court may utilize as guidance the following Schedule of Civil Penalties set by the board in accordance with § 10.1-603.14 A of the Code of Virginia. The range contained within the schedule reflects the degree of harm caused by the violation, which is site-specific and may vary greatly from case to case, as may the economic benefit of noncompliance to the violator. Each day of violation of each requirement shall constitute a separate offense. Assignment of the degree of harm is a qualitative decision subject to the court's discretion. The court has the discretion to impose a maximum penalty of \$32,500 per violation per day in accordance with § 10.1-603.14 A of the Code of Virginia.

<u>1. Gravity-based Component</u>	<u>Marginal</u>	<u>Moderate</u>	<u>Serious</u>	
<u>Violations* and Frequency of Occurrence **</u>	<u>\$\$ x occurrences</u>	<u>\$\$ x occurrences</u>	<u>\$\$ x occurrences</u>	<u>SUBTOTAL</u>
<u>No Permit Registration (each month w/o coverage = 1 occurrence)</u>	<u>500 x _____</u>	<u>1,000 x _____</u>	<u>2,000 x _____</u>	
<u>No SWPPP (No SWPPP components including E&amp;S Plan) (each month of land-disturbing without SWPPP = 1 occurrence)</u>	<u>1,000 x _____</u>	<u>1,500 x _____</u>	<u>2,000 x _____</u>	
<u>Incomplete SWPPP</u>	<u>300 x _____</u>	<u>500 x _____</u>	<u>1,000 x _____</u>	
<u>SWPPP not on site</u>	<u>100 x _____</u>	<u>300 x _____</u>	<u>500 x _____</u>	
<u>No approved Erosion and Sediment Control Plan</u>	<u>500 x _____</u>	<u>1,000 x _____</u>	<u>2,000 x _____</u>	
<u>Failure to install stormwater BMPs or erosion and sediment ("E&amp;S") controls</u>	<u>300 x _____</u>	<u>500 x _____</u>	<u>1,000 x _____</u>	
<u>Stormwater BMPs or E&amp;S controls improperly installed or maintained</u>	<u>250 x _____</u>	<u>500 x _____</u>	<u>750 x _____</u>	

<u>Operational deficiencies (e.g., failure to initiate stabilization measures as soon as practicable; unauthorized discharges of stormwater; failure to implement control measures for construction debris)</u>	<u>1,000 x</u> _____	<u>2,000 x</u> _____	<u>5,000 x</u> _____	
<u>Failure to conduct required inspections</u>	<u>500 x</u> _____	<u>2,000 x</u> _____	<u>3,000 x</u> _____	
<u>Incomplete, improper or missed inspections (e.g., inspections not conducted by qualified personnel; site inspection reports do not include date, weather information, location of discharge, or are not certified, etc.)</u>	<u>300 x</u> _____	<u>500 x</u> _____	<u>1,000 x</u> _____	
			<u>Subtotal #1</u>	
<u>2. Estimated Economic Benefit of Noncompliance (if applicable)</u>			<u>Subtotal #2</u>	
<u>3. Recommended civil penalty</u>			<u>Total (#1 and #2)</u>	
<p>* <u>Each stormwater BMP or E&amp;S control that is either not installed or improperly installed or maintained is a separate violation.</u></p> <p>** <u>The frequency of occurrence is per event unless otherwise noted.</u></p>				

E. Pursuant to subdivision 2 of § 10.1-603.2:1 of the Code of Virginia, authorization to administer a qualifying local program shall not remove from the board the authority to enforce the provisions of the Virginia Stormwater Management Act and attendant regulations.

F. Pursuant to § 10.1-603.14 A of the Code of Virginia, amounts recovered by a qualifying local program shall be paid into the treasury of the locality in which the violation occurred and are to be used for the purpose of minimizing, preventing,

managing, or mitigating pollution of the waters of the locality and abating environmental pollution therein in such manner as the court may, by order, direct.

**4VAC50-60-118. Hearings.**

A qualifying local program shall ensure that any permit applicant or permittee shall have a right to a hearing pursuant to § 10.1-603.12:6 of the Code of Virginia and shall ensure that all hearings held under this chapter shall be conducted in accordance with § 10.1-603.12:7 of the Code of Virginia or as otherwise provided by law.

**4VAC50-60-120. Requirements for local program and ordinance. (Repealed.)**

~~A. At a minimum, the local stormwater management program and implementing ordinance shall meet the following:~~

- ~~1. The ordinance shall identify the plan approving authority and other positions of authority within the program, and shall include the regulations and technical criteria to be used in the program.~~
- ~~2. The ordinance shall include procedures for submission and approval of plans, issuance of permits, monitoring and inspections of land development projects. The party responsible for conducting inspections shall be identified. The local program authority shall maintain, either on site or in local program files, a copy of the approved plan and a record of all inspections for each land development project.~~

~~B. The department shall periodically review each locality's stormwater management program, implementing ordinance, and amendments. Subsequent to this review, the department shall determine if the program and ordinance are consistent with the state stormwater management regulations and notify the locality of its findings. To the maximum extent practicable the department will coordinate the reviews with other local government program reviews to avoid redundancy. The review of a local program shall consist of the following:~~

- ~~1. A personal interview between department staff and the local program administrator or his designee;~~
- ~~2. A review of the local ordinance and other applicable documents;~~
- ~~3. A review of plans approved by the locality and consistency of application;~~
- ~~4. An inspection of regulated activities; and~~
- ~~5. A review of enforcement actions.~~

~~C. Nothing in this chapter shall be construed as limiting the rights of other federal and state agencies from imposing stricter technical criteria or other requirements as allowed by law.~~

**4VAC50-60-122. Qualifying local program exceptions.**

A. A qualifying local program may grant exceptions to the provisions of [ ~~Part II (4VAC50-60-40 et seq.)~~ Parts II A and II B ] of this chapter through an administrative process. A request for an exception, including the reasons for making the request, shall be submitted in writing to the qualifying local program. An exception may be granted provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable and appropriate conditions shall be imposed as necessary upon any exception granted so that the intent of the Act and this chapter are preserved, (iii) granting the exception will not confer on the permittee any special privileges that are denied to other permittees who present similar circumstances, and (iv) exception requests are not based upon conditions or circumstances that are self-imposed or self-created.

B. Economic hardship alone is not sufficient reason to grant an exception from the requirements of this chapter.

C. Under no circumstance shall the qualifying local program grant an exception to the requirement that the land-disturbing activity obtain a permit.

D. [ Any exception to the water quality technical criteria of subdivisions 1 and 2 of 4VAC50-60-63 shall require that all available offsite options be utilized before an exception is granted and that any necessary phosphorus reductions unable to be achieved on site or through the available offsite options of subsection A of 4VAC50-60-69 be achieved through a payment made in accordance with subsection B of 4VAC50-60-69 [ , when such payment option is available ]. In the case of the granting of an exception, the minimum on site thresholds of subsection B of 4VAC50-60-69 shall not apply.

E. ] A record of all exceptions [ applied for and ] granted shall be maintained by the qualifying local program and reported to the department in accordance with 4VAC50-60-126.

**4VAC50-60-124. Qualifying local program stormwater management facility maintenance.**

A. Responsibility for the operation and maintenance of stormwater management facilities in accordance with this chapter, unless assumed by a governmental agency, shall remain with the property owner or other legally established entity and shall pass to any successor.

[ 1. ] The [ government entity implementing the ] qualifying local program shall [ be a party to each require a ] maintenance agreement [ for each stormwater management facility except as provided in subdivision 2 ]. Such maintenance agreement shall [ include a schedule for require the owner to (i) perform ] inspections [ by the owner, and, in addition to ensuring that each on a specified schedule, (ii) maintain the ] facility [ is maintained ] as designed, [ shall ensure that and (iii) maintain ] the designed flow and drainage patterns from the site to a permanent facility [ are maintained ]. Such agreements may also contain provisions specifying that, where maintenance or repair of a stormwater management facility located on the owner's property is neglected, or the stormwater management facility becomes a public health or safety concern and the owner has failed to perform the necessary maintenance and repairs after receiving notice from the locality, the qualifying local program may perform the necessary maintenance and repairs and recover the costs from the owner. In the specific case of a public health or safety danger, the agreement may provide that the written notice may be waived by the locality.

[ 2. Maintenance agreements, at the discretion of the qualifying local program, shall not be required for stormwater management facilities designed to treat stormwater runoff [ solely primarily ] from an individual residential lot on which they are located, provided it is demonstrated to the satisfaction of the qualifying local program that future maintenance of such facilities will be addressed through a deed restriction or other mechanism enforceable [ by at the discretion of ] the qualifying local program. ]

B. [ The Where a maintenance agreement is required for a stormwater management facility, the ] qualifying local program shall be notified of any transfer or conveyance of ownership or responsibility for maintenance of a stormwater management facility.

C. [ ~~The~~ Where a maintenance agreement is required for a stormwater management facility, the ] qualifying local program shall require right-of-entry agreements or easements from the property owner for purposes of inspection and maintenance.

**4VAC50-60-126. Qualifying local program report and recordkeeping.**

A. On a fiscal year basis (July 1 to June 30), a qualifying local program shall report to the department by October 1 of each year in a format provided by the department. The information to be provided shall include the following:

1. Information on each permanent stormwater management facility completed during the fiscal year to include type of stormwater management facility, coordinates, acres treated, and the surface waters or karst features into which the stormwater management facility will discharge;
2. Number of VSMP General Permit for Discharges of Stormwater from Construction Activities projects inspected and the total number of inspections by acreage categories determined by the department during the fiscal year;
3. Number and type of enforcement actions during the fiscal year; and
4. Number of exceptions applied for and the number granted or denied during the fiscal year.

B. A qualifying local program shall make information set out in subsection A of this section available to the department upon request.

C. A qualifying local program shall keep records in accordance with the following:

1. Permit files shall be kept for three years after permit termination. After three years, the permit file shall be delivered to the department by October 1 of each year.
2. Stormwater maintenance facility inspection reports shall be kept for five years from the date of inspection.
3. Stormwater maintenance agreements, design standards and specifications, [ ~~postconstruction surveys~~ construction record drawings ], and maintenance records shall be maintained in perpetuity [ or until a stormwater management facility is removed due to redevelopment of the site ].

Part III B

Department of Conservation and Recreation Administered Local Programs

**4VAC50-60-128. Authority and applicability.**

In the absence of a qualifying local program, the department, in accordance with an adoption and implementation schedule set by the board and upon board approval, shall administer the local stormwater management program in a locality in accordance with § 10.1-603.3 C of the Code of Virginia. This part specifies the minimum technical criteria for a department-administered local stormwater management program in accordance with the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia), and the standards and criteria established in these regulations by the board pursuant to its authority under that article. Such criteria include but are not limited to administration, plan review, issuance of coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities, issuance of individual permits, inspection, enforcement, and education and outreach components.

**4VAC50-60-130. Administrative procedures: stormwater management plans. (Repealed.)**

~~A. Localities shall approve or disapprove stormwater management plans according to the following:~~

~~1. A maximum of 60 calendar days from the day a complete stormwater management plan is accepted for review will be allowed for the review of the plan. During the 60 day review period, the locality shall either approve or disapprove the plan and communicate its decision to the applicant in writing. Approval or denial shall be based on the plan's compliance with the locality's stormwater management program.~~

~~2. A disapproval of a plan shall contain the reasons for disapproval.~~

~~B. Each plan approved by a locality shall be subject to the following conditions:~~

~~1. The applicant shall comply with all applicable requirements of the approved plan, the local program, this chapter and the Act, and shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan.~~

~~2. The land development project shall be conducted only within the area specified in the approved plan.~~

~~3. The locality shall be allowed, after giving notice to the owner, occupier or operator of the land development project, to conduct periodic inspections of the project.~~

~~4. The person responsible for implementing the approved plan shall conduct monitoring and submit reports as the locality may require to ensure compliance with the approved plan and to determine whether the plan provides effective stormwater management.~~

~~5. No changes may be made to an approved plan without review and written approval by the locality.~~

**4VAC50-60-132. Technical criteria.**

A. The department-administered local stormwater management programs shall require compliance with the provisions of [ ~~Part II~~ Part II A and Part II B as applicable ] (4VAC50-60-40 et seq.) of this chapter unless an exception is granted pursuant to 4VAC50-60-142 D and shall comply with the requirements of 4VAC50-60-460 L.

B. When reviewing a federal project, the department shall apply the provisions of this chapter.

C. Nothing in this chapter shall be construed as limiting the rights of other federal and state agencies to impose stricter technical criteria or other requirements as allowed by law.

**4VAC50-60-134. Administrative authorities.**

A. The department is the permit-issuing authority, plan approving authority, and the enforcement authority.

B. The department or its designee is the plan reviewing authority and the inspection authority.

C. The department shall assess and collect fees.

D. The department may require the submission of a reasonable performance bond or other financial surety in accordance with the criteria set forth in § 10.1-603.8 of the Code

of Virginia prior to the issuance of coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities and in accordance with the following:

1. The amount of the installation performance security shall be the total estimated construction cost of the stormwater management BMPs approved under the stormwater management plan, plus 25%;
2. The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain appropriate actions that may be required in accordance with the approved stormwater management plan;
3. Upon failure by the applicant to take such action as required, the department may act and may collect from the applicant the difference should the amount of the reasonable cost of such action exceed the amount of the security held; and
4. Within 60 days of the completion of the requirements and conditions of the VSMP General Permit for Discharges of Stormwater from Construction Activities and the department's acceptance of the Notice of Termination, such bond, cash escrow, letter of credit, or other legal arrangement shall be refunded to the applicant.

**4VAC50-60-136. Stormwater management plan review.**

A. Stormwater management plans shall be reviewed and approved by the department prior to commencement of land-disturbing activities.

B. The department shall approve or disapprove a stormwater management plan and required accompanying information according to the criteria set out for a qualifying local program in 4VAC50-60-108 B.

C. The department shall not [ ~~accept~~ review or approve ] initial stormwater management plans.

D. Each approved stormwater management plan may be modified in accordance with the criteria set out for a qualifying local program in 4VAC50-60-108 D.

**4VAC50-60-138. Issuance of coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.**

The department shall issue coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities in accordance with the following:

1. The applicant must have a department-approved stormwater management plan for the land-disturbing activity.
2. The applicant must have submitted a complete registration statement for the VSMP General Permit for Discharges of Stormwater from Construction Activities in accordance with Part VII (4VAC50-60-360 et seq.) of this chapter and the requirements of the VSMP General Permit for Discharges of Stormwater from Construction Activities, which acknowledges that a SWPPP has been developed and will be implemented, and the registration statement must have been reviewed and approved prior to the commencement of land disturbance.
3. The applicant must have submitted the required fee form and fee for the registration statement seeking coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.
4. Applicants submitting registration statements deemed to be incomplete must be notified within 15 working days of receipt by the department that the

registration statement is not complete and be notified (i) of what material needs to be submitted to complete the registration statement, and (ii) that the land-disturbing activity does not have coverage under the VSMP General Permit for Discharges of Stormwater from Construction Activities.

5. The applicant shall be notified of authorization of permit coverage by the department.

6. Individual permits for qualifying land-disturbing activities may be issued at the discretion of the board or its designee pursuant to 4VAC50-60-410 B 3.

**4VAC50-60-140. Administrative procedures: exceptions. (Repealed.)**

~~A. A request for an exception shall be submitted, in writing, to the locality. An exception from the stormwater management regulations may be granted, provided that: (i) exceptions to the criteria are the minimum necessary to afford relief and (ii) reasonable and appropriate conditions shall be imposed as necessary upon any exception granted so that the intent of the Act and this chapter are preserved.~~

~~B. Economic hardship is not sufficient reason to grant an exception from the requirements of this chapter.~~

**4VAC50-60-142. Inspections, enforcement, hearings, exceptions, and stormwater management facility maintenance.**

A. Inspections shall be conducted by the department in accordance with 4VAC50-60-114.

B. Enforcement actions shall be conducted by the department in accordance with 4VAC50-60-116. The department's Stormwater Management Enforcement Manual shall serve as guidance to be utilized in enforcement actions under the Stormwater Management Act and attendant regulations. Any amounts assessed by a court as a result of a summons issued by the board or the department shall be paid into the state treasury and deposited by the State Treasurer into the Virginia Stormwater Management Fund established pursuant to § 10.1-603.4:1 of the Code of Virginia.

C. Hearings shall be conducted by the department in accordance with 4VAC50-60-118.

D. Exceptions may be granted by the department in accordance with 4VAC50-60-122.

E. Stormwater management facility maintenance shall be conducted in accordance with 4VAC50-60-124.

**4VAC50-60-150. Administrative procedures: maintenance and inspections. (Repealed.)**

~~A. Responsibility for the operation and maintenance of stormwater management facilities, unless assumed by a governmental agency, shall remain with the property owner and shall pass to any successor or owner. If portions of the land are to be sold, legally binding arrangements shall be made to pass the basic responsibility to successors in title. These arrangements shall designate for each project the property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance.~~

~~B. In the case of developments where lots are to be sold, permanent arrangements satisfactory to the locality shall be made to ensure continued performance of this chapter.~~

~~C. A schedule of maintenance inspections shall be incorporated into the local ordinance. Ordinances shall provide that in cases where maintenance or repair is neglected, or the stormwater management facility becomes a danger to public health or safety, the locality has the authority to perform the work and to recover the costs from the owner.~~

~~D. Localities may require right-of-entry agreements or easements from the applicant for purposes of inspection and maintenance.~~

~~E. Periodic inspections are required for all stormwater management facilities. Localities shall either:~~

- ~~1. Provide for inspection of stormwater management facilities on an annual basis;~~  
~~or~~
- ~~2. Establish an alternative inspection program which ensures that stormwater management facilities are functioning as intended. Any alternative inspection program shall be:
  - ~~a. Established in writing;~~
  - ~~b. Based on a system of priorities that, at a minimum, considers the purpose of the facility, the contributing drainage area, and downstream conditions; and~~
  - ~~c. Documented by inspection records.~~~~

~~F. During construction of the stormwater management facilities, localities shall make inspections on a regular basis.~~

~~G. Inspection reports shall be maintained as part of a land development project file.~~

#### **4VAC50-60-154. Reporting and recordkeeping.**

A. The department shall maintain a current database of permit coverage information for all projects that includes permit number, operator name, activity name, acres disturbed, date of permit coverage, and site address and location.

B. On a fiscal year basis (July 1 to June 30), [ a local program shall report to ] the department [ shall compile a report on the local programs it administers ] by October 1 in accordance with 4VAC50-60-126 A.

~~[ C. On a fiscal year basis (July 1 to June 30), the department shall compile information provided by local programs.~~

~~D. C. ] Records shall be maintained by the department in accordance with 4VAC50-60-126 C.~~

### Part III C

#### Department of Conservation and Recreation Procedures for Review of Qualifying Local Programs

#### **4VAC50-60-156. Authority and applicability.**

This part specifies the criteria that the department will utilize in reviewing a locality's administration of a qualifying local program pursuant to § 10.1-603.12 of the Code of Virginia following the board's approval of such program in accordance with the Virginia Stormwater Management Act and these regulations.

#### **4VAC50-60-157. Stormwater management program review.**

A. The department shall review each board-approved qualifying local program at least once every five years on a review schedule approved by the board. The department may review a qualifying local program on a more frequent basis if deemed

necessary by the board and shall notify the local government if such review is scheduled.

B. The review of a board-approved qualifying local program shall consist of the following:

1. An interview between department staff and the qualifying local program administrator or his designee;
2. A review of the local ordinance(s) and other applicable documents;
3. A review of a subset of the plans approved by the qualifying local program and consistency of application including exceptions granted;
4. An accounting of the receipt and of the expenditure of fees received;
5. An inspection of regulated activities; and
6. A review of enforcement actions and an accounting of amounts recovered through enforcement actions.

C. To the extent practicable, the department will coordinate the reviews with other local government program reviews to avoid redundancy.

D. The department shall provide its recommendations to the board within 90 days of the completion of a review. Such recommendations shall be provided to the locality in advance of the meeting.

E. The board shall determine if the qualifying local program and ordinance are consistent with the Act and state stormwater management regulations and notify the qualifying local program of its findings.

F. If the board determines that the deficiencies noted in the review will cause the qualifying local program to be out of compliance with the Stormwater Management Act and its attendant regulations, the board shall notify the qualifying local program concerning the deficiencies and provide a reasonable period of time for corrective action to be taken. If the qualifying local program agrees to the corrective action recommended by the board, the qualifying local program will be considered to be conditionally compliant with the Stormwater Management Act and its attendant regulations until a subsequent finding is issued by the board. If the qualifying local program fails to take the corrective action within the specified time, the board may take action pursuant to § 10.1-603.12 of the Code of Virginia.

#### Part III D

#### Virginia Soil and Water Conservation Board Authorization for Qualifying Local Programs

##### **4VAC50-60-158. Authority and applicability.**

Subdivision 1 of § 10.1-603.4 of the Code of Virginia requires that the board establish standards and procedures for authorizing a locality to administer a stormwater management program. In accordance with that requirement, and with the further authority conferred upon the board by the Virginia Stormwater Management Act (§ 10.1-603.2 et seq. of the Code of Virginia), this part specifies the procedures the board will utilize in authorizing a locality to administer a qualifying local program.

##### **4VAC50-60-159. Authorization procedures for qualifying local programs.**

A. A locality required to adopt a program in accordance with § 10.1-603.3 A of the Code of Virginia or those electing to seek authorization to administer a qualifying local program must submit to the board an application package which, at a minimum, contains the following:

1. The local program ordinance(s);

2. A funding and staffing plan based on the projected permitting fees; and
3. The policies and procedures, including but not limited to, agreements with Soil and Water Conservation Districts, adjacent localities, or other entities, for the administration, plan review, permit issuance, inspection, and enforcement components of the program.

B. Upon receipt of an application package, the board or its designee shall have [ 20 30 ] calendar days to determine the completeness of the application package. If an application package is deemed to be incomplete based on the criteria set out in subsection A of this section, the board or its designee must identify in writing the reasons the application package is deemed deficient.

C. Upon receipt of a complete application package, the board or its designee shall have 90 calendar days for the review of the application package. During the 90-day review period, the board or its designee shall either approve or disapprove the application, or notify the locality of a time extension for the review, and communicate its decision to the locality in writing. If the application is not approved, the reasons for not approving the application shall be provided to the locality in writing. Approval or denial shall be based on the application's compliance with the Virginia Stormwater Management Act and these regulations.

D. A locality required to adopt a qualifying local program in accordance with § 10.1-603.3 A of the Code of Virginia shall submit a complete application package for the board's review pursuant to a schedule set by the board in accordance with § 10.1-603.3 and shall adopt a qualifying local program consistent with the Act and this chapter within the timeframe established pursuant to § 10.1-603.3.

E. A locality not required to adopt a qualifying local program in accordance with § 10.1-603.3 A but electing to adopt a qualifying local program shall notify the board in accordance with the following:

1. A locality electing to adopt a qualifying local program may notify the board of its intention within six months of the effective date of these regulations. Such locality shall submit a complete application package for the board's review pursuant to a schedule set by the board and shall adopt a qualifying local program within the timeframe established by the board.
2. A locality electing to adopt a qualifying local program that does not notify the board within the initial six-month period of its intention may thereafter notify the board at any regular meeting of the board. Such notification shall include a proposed schedule for adoption of a qualifying local program within a timeframe agreed upon by the board.

F. The department shall administer the responsibilities of the Act and this chapter in any locality in which a qualifying local program has not been adopted. The department shall develop a schedule, to be approved by the board, for adoption and implementation of the requirements of this chapter in such localities. Such schedule may include phases of implementation and shall be based upon considerations including the typical number of permitted projects located within a locality, total number of acres disturbed by such permitted projects, and such other considerations as may be deemed necessary by the board.

DOCUMENTS INCORPORATED BY REFERENCE (4VAC50-60)

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