

Chapter 154 Stormwater Management

[HISTORY: Adopted by the Board of Supervisors of Clarke County (Date of Adoption). Amendments noted where applicable.]

General References To Be added

Code Of Virginia References The Virginia Stormwater Management Law (“Law”), § 10.1-603.3. Establishment of stormwater management programs by localities, of the Code of Virginia, enables localities to adopt, by ordinance, a stormwater management program consistent with state regulations promulgated pursuant to the Law.

§ 154-1 General Provisions

§ 154-1-A Findings of Fact It is hereby determined that:

1. Land development activities and associated increases in site impervious cover often alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, stream channel erosion, or sediment transport and deposition;
2. This stormwater runoff contributes to increased quantities of water-borne pollutants, including siltation of aquatic habitat for fish and other desirable species;
3. Improper design and construction of stormwater best management practices (BMPs) can increase the velocity of stormwater runoff thereby increasing stream bank erosion and sedimentation;
4. Impervious surfaces allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream baseflow;
5. Substantial economic losses can result from these adverse impacts on the waters of the municipality;
6. The regulation of stormwater runoff discharges from land development activities in order to control and minimize increases in stormwater runoff rates and volumes, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will minimize threats to public health and safety.
7. Regulation of land development activities by means of

performance standards governing stormwater management and site design will produce development compatible with the natural functions of a particular site or an entire watershed and thereby mitigate the adverse effects of stormwater runoff from development.

8. Clearing and grading during construction tends to increase soil erosion and add to the loss of native vegetation necessary for terrestrial and aquatic habitat.

§ 154-1-B Purpose

The purpose of this ordinance is to establish minimum stormwater management requirements and controls to protect properties, safeguard the general health, safety, and welfare of the public residing in watersheds within this jurisdiction, as well as to protect, sustain, recycle, and enhance the surface and ground water resources of Clarke County. Drainage and stormwater management practices shall be utilized as directed herein to achieve the following objectives:

1. To inhibit the deterioration of water resources resulting from development.
2. To protect the safety and welfare of citizens, property owners, and businesses by minimizing the negative impacts of increased stormwater discharges from new land development and redevelopment.
3. To control the rate, quality and volume of stormwater originating from development and redevelopment sites so that surface water and groundwater are protected and flooding and erosion potential are not increased.
4. To control nonpoint source pollution and stream channel erosion.
5. To maintain the integrity of stream channels and networks for their biological functions, drainage, and natural recharge of groundwater.
6. Establish certain administrative procedures for the submission, review, approval, and disapproval of stormwater plans, and the inspection of approved projects
7. To protect the condition of state (and U.S.) waters for all reasonable public uses and ecological functions.

8. Maintain the existing water balance in all watersheds, subwatersheds, and streams in Clarke County, and protect and/or restore natural hydrologic characteristics and habitats wherever possible throughout the watershed systems.
9. To provide long-term responsibility for and maintenance of stormwater BMPs.
10. To facilitate the integration of stormwater management and pollution control with other ordinances, programs, policies, and the comprehensive plan of Clarke County.
11. Establish legal authority to carry out all the inspection and monitoring procedures necessary to ensure compliance with this ordinance.
12. Preserve the natural infiltration of groundwater to maintain the quantity and quality of groundwater resources.
13. Protect against and minimize the pollution of public drinking water supplies resulting from development and redevelopment.
14. Protect impaired waters as identified by the Department of Environmental Quality from further degradation from stormwater discharge.

§ 154-1-C Title This chapter is identified and may be cited as the "Stormwater Management Ordinance of Clarke County, Virginia."

§ 154-1-D Adoption of State Requirements This ordinance adopts and incorporates the provisions of the Virginia Stormwater Management Regulations VR 625-02-00, except as provided herein.

§ 154-1-E Applicability

- 1) This ordinance shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to 154-1-E-2 or *Section 154-4-K*. These provisions apply to any new development or redevelopment site within Clarke County that meets one or more of the following criteria:
 - a. Land development that creates five-thousand (5,000) square feet or more of impervious cover.
 - b. Land development projects that disturb 10,000 square feet or more of land area.

- c. Redevelopment that creates, adds, or replaces five-thousand (5,000) square feet or more of impervious cover.
 - d. Land development activities that are smaller than the minimum applicability criteria set forth above if such activities are part of a larger common plan of development, even though multiple, separate and distinct land development activities may take place at different times on different schedules.
- 2) The following activities are exempt from these stormwater performance criteria:
- a. Permitted surface or deep mining operations and projects, or oil and gas operations and projects conducted under the provisions of Title 45.1 of the Act;
 - b. Tilling, planting or harvesting of agricultural, horticultural, or forest crops;
 - c. Single-family residences separately built and not part of a subdivision or phased development project that is otherwise subject to this ordinance, including additions or modifications to existing single-family detached residential structures;
 - d. Structures considered ancillary to single-family detached and semidetached residences, duplexes, and townhouses, including, but not limited to, garages, decks, patios, and barns.
 - e. Land development projects that disturb less than 10,000 square feet of land area; however, the program administrator may reduce this exception to a smaller area of disturbed land or qualify the conditions under which this exception shall apply.
 - f. Maintenance and repair to any stormwater BMP deemed necessary by the Program Administrator.
 - g. Any emergency project that is immediately necessary for the protection of life, property, or natural resources.
 - h. Linear construction projects, such as pipeline or utility line installation, that do not result in the installation of any impervious cover, as determined by the Program Administrator. Such projects must be designed to minimize

the number of stream crossings and width of disturbance, and are subject to the County Erosion and Sediment Control Ordinance.

- i. Any part of a land development that was approved by the Soil and Water Conservation District prior to the effective date of this ordinance.

*§ 154-1-F
Compatibility with
other Permit and
Ordinance
Requirements*

This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

*§ 154-1-G
Administration*

This chapter shall be administered and enforced by the program administrator. The program administrator or designee, upon proper identification, shall have the right to enter upon any land for the purpose of making an inspection or acquiring information to determine whether or not the property conforms to the requirements of this chapter.

*§ 154-1-H
Severability*

If the provisions of any article, section, subsection, paragraph, subdivision or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this ordinance.

§ 154-1-I Liability

Any person who undertakes or causes to be undertaken any land development shall ensure that soil erosion, sedimentation, increased pollutant loads and changed water flow characteristics resulting from the activity are controlled so as to minimize pollution of receiving waters. The requirements of this ordinance are minimum standards and a person's compliance with the same shall not relieve such person from the duty of enacting all measures necessary to minimize pollution of receiving waters.

By approving a plan under this regulation, Clarke County does not accept responsibility for the design, installation, and operation and maintenance of stormwater BMPs.

*§ 154-1-J
Reference*

The Program Administrator may utilize the information from the following documents, for the proper implementation of the

Documents

requirements of this ordinance. These documents include lists of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. These manuals may be updated and expanded from time to time, based on improvements in engineering, science, monitoring, and local maintenance experience.

- 1) Clarke County Stormwater Management Design Manual prepared by Clarke County, Virginia, dated October 2009 and subsequent modifications and updates thereof.
- 2) Virginia Stormwater Management Handbook, Volumes I and II, prepared by the Virginia Department of Conservation and Recreation dated 1999 and subsequent modifications and updates thereof.
- 3) Low-Impact Development Design Strategies: An Integrated Design Approach, United States Environmental Protection Agency, Office of Water, EPA 841-B-00-003 dated June 1999 and subsequent modifications and updates thereof.
- 4) Low-Impact Development Hydrologic Analysis, United States Environmental Protection Agency, Office of Water, EPA 841-B-00-002 dated June 1999 and subsequent modifications and updates thereof.
- 5) Northern Shenandoah Valley Regional Urban Manual for Low Impact Design, Northern Shenandoah Valley Regional Commission, October 2005.
- 6) Low Impact Development Design Strategies—An Integrated Design Approach, prepared by Prince Georges County, Maryland, January 2000.
- 7) LarBranche, Adrienne, Hans-Otto Wack, David Crawford, Ed Crawford, Nickolas J. Sojka, Cabell Brand. 2007. Virginia Rainwater Harvesting Manual. Salem, Virginia. The Cabell Brand Center.
- 8) Technical Memorandum: The Runoff Reduction Method Center for Watershed Protection & Chesapeake Stormwater Network April 18, 2008.
- 9) Chesapeake Stormwater Network Technical Bulletin No.2: Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 June 2009.

§ 154- 2 Definitions

ACT means 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 watercourse that will convey the designated frequency storm event without overtopping its banks or causing erosive damage to the bed, 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.

APPLICANT means any person submitting a stormwater management plan for approval.

BUILDING means any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

CARBONATE BEDROCK – Rock consisting chiefly of carbonate minerals, such as limestone and dolomite; specifically a sedimentary rock composed of more than 50% by weight of carbonate minerals that underlies soil or other unconsolidated, superficial material.

CISTERN - An underground reservoir or tank for storing rainwater.

CLOSED DEPRESSION - A distinctive bowl-shaped depression in the land surface. It is characterized by internal drainage, varying magnitude, and an unbroken ground surface.

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

COMPREHENSIVE STORMWATER MANAGEMENT PLAN means a plan, which may be integrated with other land use plans or regulations, that specifies how the water quality components, water 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.

DEDICATION means the deliberate appropriation of property by its

owner for general public use.

DETENTION means the temporary storage of storm runoff in a stormwater management practice with the goals of controlling peak discharge rates and providing gravity settling of pollutants.

EASEMENT means a legal right granted by a landowner to a grantee allowing the use of private land for stormwater management purposes.

ELIGIBILITY CRITERIA are defined as design factors – such as sizing, pretreatment, flow path geometry, vegetative condition, and treatment processes – that allow a BMP to achieve the RR and PR rates.

EROSION AND SEDIMENT CONTROL PLAN means a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.

EVENT MEAN CONCENTRATION (EMC) is defined as the average concentration of a pollutant in runoff for a monitored storm event.

FLOOD FRINGE is the portion of the floodplain outside of the floodway.

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 susceptible to being inundated by water from any source. It includes the floodway and flood-fringe areas.

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 without cumulatively increasing the water surface elevation more than one foot or as otherwise designated by the Federal Emergency Management Agency.

GROUNDWATER MANAGEMENT AREA means a geographically defined area that may be particularly sensitive in terms of groundwater quantity and/or quality by nature of the use or movement of groundwater, or the relationship between

groundwater and surface water, and where special management measures are deemed necessary to protect groundwater and surface water resources.

GROUNDWATER RECHARGE Replenishment of existing natural underground water supplies.

GROUNDWATER RECHARGE VOLUME (REV) The portion of the water quality volume (WQv) used to maintain groundwater recharge rates at development sites.

HOTSPOT means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.

HYDROLOGIC SOIL GROUP (HSG) means a Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups. The groups range from A soils, with high permeability and little runoff production, to D soils, which have low permeability rates and produce much more runoff.

HYDROLOGIC UNIT CODE (HUC) means a watershed unit established in the most recent version of Virginia's 6th Order National watershed Boundary Dataset.

IMPAIRED WATERS means those streams, rivers and lakes that currently do not meet their designated use classification and associated water quality standards under the Clean Water Act.

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, roofs, buildings, streets, parking areas, and any conventional concrete, asphalt, or compacted gravel surface.

INDUSTRIAL STORMWATER PERMIT means a National Pollutant Discharge Elimination System (NPDES) permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

INFILL DEVELOPMENT means land development that occurs within designated areas based on local land use, watershed, and/or utility plans where the surrounding area is generally developed, and where the site or area is either vacant or has previously

been used for another purpose.

INFILTRATION means the process of percolating stormwater into the subsoil.

INFILTRATION FACILITY means any structure or device designed to infiltrate retained water to the subsurface. These facilities may be above grade or below grade.

INTEGRATED MANAGEMENT PRACTICE means low-impact development microscale and distributed management techniques used to maintain predevelopment site hydrology. Integrated management practices shall include bioretention facilities, dry wells, filter/buffer strips, grassed swales, rain barrels, cisterns, infiltration trenches and amended soils as specified in the low-impact development design manuals.

JURISDICTIONAL WETLAND means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

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 subsurface karst features.

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

LAND DEVELOPMENT or LAND DEVELOPMENT PROJECT means a manmade change to the land surface that potentially changes its runoff characteristics.

LAND DISTURBANCE OR LAND DISTURBANCE 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, the Act, and this chapter.

LANDOWNER means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

LOCAL STORMWATER MANAGEMENT PROGRAM means 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.

LOCALITY means a county, city, or town.

LOW-IMPACT DEVELOPMENT MEANS a hydrologically functional site design with pollution-prevention measures to reduce impacts and compensate for development impacts on hydrology and water quality.

MAINTENANCE AGREEMENT means a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices.

MAINTENANCE PLAN means a component of the stormwater management design plan describing the stormwater management structures and facilities at the land development project and identifying maintenance items that will be performed by the landowner to ensure proper functioning of said structures and facilities.

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 bankfull bench and its floodplain.

NATURAL STORMWATER CONVEYANCE SYSTEM means the main channel of a natural stream, in combination with the floodway and flood fringe.

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.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT means a permit issued by the EPA, or by a State under authority delegated pursuant to 33 USC § 1342(b), that authorizes the discharge of pollutants to waters of the State, whether the permit is applicable on an individual, group, or general area-wide basis.

NON-STORMWATER DISCHARGE means any discharge to the storm drain system that is not composed entirely of stormwater.

NON-STRUCTURAL MEASURE means a stormwater control and treatment technique that uses natural processes, restoration or enhancement of natural systems, or design approaches to control runoff and/or reduce pollutant levels. Such measures are used in lieu of or to supplement structural practices on a land development site. Non-structural measures include, but are not limited to: minimization and/or disconnection of impervious surfaces; development design that reduces the rate and volume of runoff; restoration or enhancement of natural areas such as riparian areas, wetlands, and forests; and on-lot practices such as rain barrels, cisterns, and vegetated areas that intercept roof and driveway runoff.

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.

OFF-SITE FACILITY means a stormwater management measure located outside the subject property boundary described in the permit application for land development activity.

ON-SITE FACILITY means a stormwater management measure located within the subject property boundary described in the permit application for land development activity.

OWNER means the owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee or other person, firm or corporation in control of a property.

PERMANENT STORMWATER BMP means a stormwater best management practice (BMP) that will be operational after the

construction phase of a project and that is designed to become a permanent part of the site for the purposes of managing stormwater runoff.

POLLUTANT REMOVAL (PR) is defined as the change in EMC as runoff flows into and out of a BMP. Pollutant removal is accomplished via processes such as settling, filtering, adsorption, and biological uptake. This does not account for changes in the overall volume of runoff entering and leaving the BMP.

PRETREATMENT means the techniques employed in a stormwater management plan to provide storage or filtering to help trap course materials before they enter the stormwater BMP. Pretreatment is required on some BMPs to help avoid costly maintenance.

PROGRAM ADMINISTRATOR means the County Planning Director or his/her designee, which is responsible for coordinating the review, approval, and permit process as defined by this ordinance.

QUALIFIED GEOTECHNICAL PROFESSIONAL a licensed professional geologist or a licensed professional engineer who has a background or expertise in geology or hydrogeology.

RECEIVING STREAM OR CHANNEL means the body of water or conveyance into which stormwater runoff is discharged.

RECHARGE means the replenishment of underground water reserves.

REDEVELOPMENT means the process of developing land that is or has been previously developed.

REGIONAL STORMWATER means stormwater BMPs designed to control stormwater runoff from multiple properties or a particular land use district, and where the owners or developers of the individual properties may participate in the provision of land, financing, design, construction, and/or maintenance of the facility.

RESPONSIBLE PARTY means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns that is

named on a stormwater maintenance agreement as responsible for long-term operation and maintenance of one or more stormwater BMPs.

RUNOFF REDUCTION (RR) is defined as the total annual runoff volume reduced through canopy interception, soil infiltration, evaporation, transpiration, rainfall harvesting, engineering infiltration, or extended filtration.

STOP WORK ORDER means an order issued which requires that all construction activity on a site be stopped.

STORMWATER MANAGEMENT CONCEPT PLAN means a generalized plan provided with the preliminary plan of subdivision or preliminary site development plan describing how stormwater runoff through and from a land development project will be conveyed and controlled.

STORMWATER DESIGN MANUAL means an engineering and/or project review document maintained by the Program Administrator containing technical standards and specifications, policies, procedures, and other materials deemed appropriate by Program Administrator to assist with compliance with the provisions of this ordinance.

STORMWATER MANAGEMENT means the use of structural or non-structural practices that are designed to reduce stormwater runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat.

STORMWATER POLLUTION PREVENTION PLAN or "SWPPP" means a document that is prepared in accordance with good engineering practices and that identifies potential sources of pollution 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 describe and ensure the implementation of best management practices, 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 reduce pollutants in stormwater discharges from land-disturbing activities and to assure 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 BEST MANAGEMENT PRACTICE (BMP) means a measure, either structural or nonstructural, that is determined to be the most effective, practical means of preventing or reducing point source or nonpoint source pollution inputs to stormwater runoff and water bodies.

STORMWATER RETROFIT means a stormwater management practice designed for an existing development site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.

STORMWATER RUNOFF means flow on the surface of the ground, resulting from precipitation.

STREAM BUFFER means an area of land at or near a streambank, wetland, or waterbody that has intrinsic water quality value due to the ecological and biological processes it performs or is otherwise sensitive to changes which may result in significant degradation to water quality.

TOTAL REMOVAL (TR) is the nutrient mass reduction, which is the product of both Runoff Reduction (RR) and Pollutant Removal (PR).

URBAN DEVELOPMENT AREA (UDA) means an area designated by Clarke County to be annexed by an incorporated town because it is appropriate for concentrations of commercial and/or residential development due to its proximity to transportation facilities, the availability of a public or community water and sewer system, and proximity to an incorporated town and as further defined in Code of Virginia section 15.2-2223.1.

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.

WATERCOURSE means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

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.

WATERSHED OR SUBWATERSHED MANAGEMENT PLAN means a document, usually developed cooperatively by government agencies and other stakeholders, to protect, restore, and/or otherwise manage the water resources within a particular watershed or subwatershed. The plan commonly identifies threats, sources of impairment, institutional issues, and technical and programmatic solutions or projects to protect and/or restore water resources.

WETLAND HYDROPERIOD means the pattern of fluctuating water levels within a wetland caused by the complex interaction of flow, topography, soils, geology, and groundwater conditions in the wetland.

§ 154- 3 Stormwater Management Program Permit Procedures and Requirements

*§ 154-3-A
Stormwater
Management
Concept Plan and
Consultation
Meeting*

Each owner subject to this ordinance shall submit to the Program Administrator for review and approval a stormwater management concept plan as provided herein:

- 1) **Stormwater Management Concept Plan:** All preliminary plans of subdivision and site plans shall provide a stormwater management concept plan describing, in general, how stormwater runoff through and from the development will be treated and conveyed. The concept plan shall also identify important natural features identified through a Natural Resources Inventory conducted in accordance with Section 154-4-A-16. All other land development projects subject to this ordinance shall submit a stormwater management concept plan prior to preparation of the stormwater management design plan.
- 2) **Application Requirements:** The stormwater management concept plan submittal shall contain a completed application form provided by the Program Administrator, the fee required by Section 154-3-1, and a stormwater management concept plan that satisfies the requirements of this section and the Stormwater Design Manual.
- 3) **Concept Plan Prior to Design Plan:** The stormwater

management concept plan must be approved prior to submission of a stormwater management design plan (as part of the construction or final site plan) for the entire development, or portions thereof.

- 4) **Meetings with Program Administrator:** All applicants are encouraged to hold a pre-submittal consultation meeting with the Program Administrator to discuss potential approaches for stormwater design and opportunities to use design techniques to reduce runoff rates, volumes, and pollutant loads. In addition, the applicant or his representative shall meet on-site with a designee of the Program Administrator prior to approval of the stormwater management concept plan for the purposes of verifying the conditions of the site and all receiving channels.
- 5) **Maximize Use of Techniques to Reduce Runoff by Design:** The stormwater management concept plan shall utilize to the maximum extent practicable site planning and design technique that reduce runoff rates, volumes, and pollutant loads. Such techniques include, but are not limited to, minimization and/or disconnection of impervious surfaces; development design that reduces the rate and volume of runoff; restoration or enhancement of natural areas such as riparian areas, wetlands, and forests; and distributed practices that intercept and treat runoff from developed areas.

*§ 154-3-B
Stormwater
Management Design
Plan*

Each owner subject to this ordinance shall submit to the Program Administrator for review and approval a stormwater management design plan as provided herein:

- 1) **Stormwater Management Design Plan:** A stormwater management design plan containing all appropriate information as specified in this Ordinance shall be submitted to the Program Administrator in conjunction with the final subdivision plat, final site plan, construction plan, or any other land development plan subject to this ordinance.
- 2) **Application Requirements:** The stormwater management design plan submittal shall contain a completed application form provided by the Program Administrator, the fee required by Section 154-3-I, a stormwater management design plan that satisfies the requirements of this section and the Stormwater Design Manual, a stormwater maintenance plan, and a certification stating that all requirements of the approved plan will be complied with. Failure of the owner to demonstrate that the project meets these requirements, as determined by the Program

Administrator, shall be reason to deny approval of the plan.

- 3) **Consistency between Concept & Design Plans:** Any discrepancies between the concept and design plans should be documented by the applicant.
- 4) **Stormwater Management Design Plan Content:** The stormwater management design plan shall contain maps, charts, graphs, tables, photographs, narrative descriptions, explanations, citations to supporting references, a record of all major permit decisions, and other information as may be necessary for a complete review of the plan, and as specified in the latest version of the Stormwater Design Manual.
- 5) **Stormwater Management Design Plan Submittal:** Stormwater management plans shall be submitted for review and be approved prior to commencement of land-disturbing activities. Stormwater management plan review shall begin upon submission of a complete plan. A complete plan elements include: responsible party contact information, topographic map, locations of discharge points and locations of proposed SWM facilities, calculations, soil information, maintenance plan, landscaping plan, maintenance easements, maintenance agreement, erosion and sediment control plan for construction of stormwater management measures, other required environmental permits and all other elements as detailed in the Stormwater Design Manual.
- 6) **Professional Requirements:** 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 of Title 54.1 of the Code of Virginia and attendant regulations.
- 7) **Determination of Plan Completeness:** Completeness of a plan and required accompanying information shall be determined by the Program Administrator, 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 Section 154-3-B-5, 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 Program Administrator shall act within 45 days on any plan that has been previously disapproved and resubmitted.
- 8) **Action of Program Administrator:** 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 their 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 as determined by the Program Administrator.
- 9) **Default Approval:** If a plan meeting all requirements of this chapter and the Program Administrator is submitted and no action is taken within the time specified above, the plan shall be deemed approved.
- 10) **Initial Stormwater Management Plan:** Notwithstanding the requirements of Section 154-3-B-5, if allowed by the Program Administrator, 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 50% of the fee required by Section 154-3-I. Such plans shall be limited to the initial clearing and grading of the site unless otherwise allowed by the Program Administrator. Approval by the Program Administrator 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 erosion and sediment control plan, Virginia Stormwater Management Permit and/or SWPPP prior to the commencement of activities beyond initial clearing and grading and other activities approved by the Program Administrator. The initial plan shall include information detailed in Section 154-3-B-5 to the extent required by the Program Administrator and such other information as may be required by the Program Administrator.
- 11) **Plan Modification:** Each approved plan may be modified in accordance with the following:
- a. Modifications to an approved stormwater management plan

shall be allowed only after review and written approval by the Program Administrator. The Program Administrator shall have 60 calendar days to respond in writing either approving or disapproving such requests.

- b. Based on an inspection, the Program Administrator may require amendments to the approved stormwater management plan to address the noted deficiencies and notify the permittee of the required modifications.

§ 154-3-C Plan Preparation and Certification

- 1) **Certification by Plan Preparer:** The stormwater management design plan shall be prepared by a licensed landscape architect, certified professional surveyor, or professional engineer and must be signed by the professional preparing the plan, who shall certify that the design of all stormwater BMPs meet the requirements in this ordinance.
- 2) **Certification by Owner:** The owner shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan.

§ 154-3-D Coordination with Other Approvals and Permits

- 1) **Approval of Other Permits:** No grading or building permit shall be issued for land development without approval of a stormwater management design plan.
- 2) **Coordination with Other Plans:** Approval of the stormwater management design plan shall be coordinated by the Program Administrator with approval of an erosion and sediment control or construction stormwater plan with regard to the location, schedule, and/or phasing for temporary and permanent stormwater management measures. If natural drainage features or other natural areas are to be preserved, then these areas must be shown and measures provided for their protection on both the erosion and sediment control plan and the stormwater management design plan. If other elements of the stormwater management design plan utilize soils, vegetation, or other natural features for infiltration or treatment, then these areas must be shown on the erosion and sediment control plan and measures provided for their protection during construction
- 3) **Other Permits or Approvals May Be Needed:** Approvals issued in accordance with this ordinance do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from other federal, state, and/or local agencies. If requirements vary, the most restrictive shall prevail. These permits may include, but are not limited to: construction stormwater discharge permits, applicable state and federal

permits for stream and wetland impacts, and applicable dam safety permits. Applicants are required to show proof of compliance with these regulations before the Program Administrator will issue a grading, building, or zoning permit.

- 4) **Stormwater Measures within Flood Plain:** Construction of stormwater measures or facilities within a Federal Emergency Management Agency (FEMA) designated floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater BMP construction shall be in compliance with all applicable requirements of the Zoning Ordinance Section 3-E-1 Flood Plain District.

*§ 154-3-E
Maintenance
Agreement and Plan*

Prior to approval by the Program Administrator of a stormwater management design plan, each owner shall submit a maintenance agreement and maintenance plan in accordance with the following:

- 1) **Responsible Party:** The owner shall be responsible for the operation and maintenance of such measures and shall pass such responsibility to any successor owner.
- 2) **Requirement for Maintenance Agreement & Plan:** If a stormwater management design plan requires structural or non-structural measures, the owner shall execute a stormwater maintenance agreement prior to the Program Administrator granting final approval for the plan, or any plan of development or other development for which a permit is required under this Ordinance. The agreement shall be recorded in the office of the clerk of the circuit court for Clarke County and shall run with the land.
- 3) **Required Elements for Maintenance Agreement & Plan:** The stormwater maintenance agreement shall be in a form approved by Clarke County, and shall, at a minimum:
 - a) **Designate Responsible Party:** Designate for the land development the owner or other legally established entity (responsible party) which shall be permanently responsible for maintenance of the structural or non-structural measures required by the plan.
 - b) **Pass Responsibility to Successors:** Pass the responsibility for such maintenance to successors in title.
 - c) **Right of Entry for Stormwater Authority:** Grant the Program Administrator and its representatives the right of

entry for the purposes of inspecting all stormwater BMPs at reasonable times and in a reasonable manner. This includes the right to enter a property when the Program Administrator has a reasonable basis to believe that a violation of this Ordinance is occurring or has occurred and to enter when necessary for abatement of a public nuisance or correction of a violation of this Ordinance.

- d) **Maintenance Plan:** Ensure the continued performance of the maintenance obligations required by the plan and this ordinance through a maintenance plan (which may be an attachment to the actual maintenance agreement). The plan shall include a list of inspection and maintenance tasks, a schedule for routine inspection and maintenance, actions to be taken when maintenance is required, and other items listed in the Stormwater Design Manual.

*§ 154-3-F
Easements*

Storm drainage easements shall be required where the conveyance, storage, or treatment of stormwater is identified on the stormwater management design plan, or where access is needed to structural or non-structural stormwater measures.

The following conditions shall apply to all easements:

1. **Dimensions:** Easements shall be of a width and location specified in the Stormwater Design Manual.
2. **Easements Approved Before Plat Approval:** Easements shall be approved by the Planning Commission prior to approval of a final plat and shall be recorded with the Clerk of the Circuit Court of Clarke County and on all property deeds.
3. **Deeds of Easement:** A deed of easement shall be recorded along with the final plat specifying the rights and responsibilities of each party to the easement.

*§ 154-3-G
Performance Bond
or Guarantee*

1. **Performance Bond Requirements:** All applicants with projects having a drainage area greater than 20 acres shall submit to the County a performance bond with surety, cash escrow, letter of credit, or such other legal arrangement acceptable to the County attorney, to ensure that measures could be taken by the County at the applicant's expense should the applicant fail, after proper notice, within the time specified to initiate or maintain appropriate actions which may be required of the applicant by the approved stormwater management plan.

2. **Action by County:** If the County takes such action upon such failure by the applicant, the County may collect from the applicant the costs of such action in excess of the amount of the security held.
3. **Term of Performance Bond:** Within sixty days of the completion of the requirements of the approved storm water management plan, including necessary stabilization, the bond, cash escrow, letter of credit or other legal arrangement, or the unexpended or unobligated portion thereof, shall be refunded to the applicant or terminated.
4. **Term Extension:** At the discretion of the Plan Administrator, the performance bond or guarantee may be extended beyond the time period specified above to cover a reasonable period of time for testing the practices during storm events and for initial maintenance activities. For the purposes of this section, the additional time shall not exceed 2 years.
5. **Partial Release:** At the discretion of Program Administrator, the performance bond or guarantee may be partially released at the completion of various stages or phases of development.

§ 154-3-H As-Built Plans

All applicants are required to submit as-built plans for any permanent stormwater management facilities located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities, meet the criteria for as-built plans in the Stormwater Design Manual, and be sealed by a registered professional engineer. A final inspection by the Program Administrator is required before any performance bond or guarantee will be released.

§ 154-3-I Fees

Each owner seeking approval of a stormwater management concept plan or stormwater management design plan shall pay a fee upon submittal of such plan, and shall pay a fee for each inspection. Such fees for permits, applications, petitions, and other action under the provisions of this Ordinance shall be payable to "Treasurer, Clarke County", in such amount as shall from time to time be set by resolution of the Board of Supervisors.

§ 154-4. Post-Construction Performance Criteria for Stormwater Management

§ 154-4-A General Post-Construction Stormwater Management

1. **Stormwater BMP Maintenance:** All stormwater BMPs shall be maintained in accordance with the approved and deeded stormwater maintenance agreement and stormwater maintenance plan. The design of stormwater facilities shall

Criteria

incorporate maintenance accommodation in accordance with the latest version of the Stormwater Design Manual.

2. **Overland Flood Routes:** Overland flood routing paths shall be used to convey stormwater runoff from the 100-year, 24-hour storm event to an adequate receiving water resource or stormwater BMP such that the runoff is contained within the drainage easement for the flood routing path and does not cause flooding of buildings or related structures. The peak 100-year water surface elevation along flood routing paths shall be at least one foot below the finished grade elevation at the structure. When designing the flood routing paths, the conveyance capacity of the site's storm sewers shall be taken into consideration.
3. **Velocity Dissipation:** Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall to provide non-erosive flow velocity from the structure to an adequate receiving stream or channel so that the natural physical and biological characteristics and functions of the receiving stream are maintained and protected.
4. **Discharges to Adjacent Property:** Concentrated discharges from land development, including from stormwater practices, shall not be discharged onto adjacent developed property without adequate conveyance in a natural stream or storm sewer system. The Program Administrator may require drainage easements where stormwater discharges must cross an adjacent or off-site property before reaching an adequate conveyance.
5. **Individual Lots Not Separate Land Development:** Residential, commercial or industrial developments shall apply these stormwater management criteria to land development as a whole. Individual residential lots in new subdivisions shall not be considered separate land development projects, but rather the entire subdivision shall be considered a single land development project.
6. **Location of Stormwater Facilities on Lots:** Stormwater facilities within residential subdivisions that serve multiple lots and/or a combination of lots and roadways shall be on a lot owned and maintained by an entity of common ownership, unless an alternative arrangement is approved by the Program Administrator. Stormwater practices located on individual lots shall be maintained by the lot owner, or, at the discretion of the Program Administrator, be placed within an easement and maintained by an entity of common ownership.

7. **Hydrologic Computation Assumptions:** Hydrologic parameters shall reflect the ultimate land development and shall be used in all engineering calculations. All pre-development calculations shall consider woods and fields to be in good condition, regardless of actual conditions at the time of application.
8. **Compliance with Federal & State Regulations:** All stormwater facilities and conveyance systems shall be designed in compliance with all applicable state and federal laws and regulations, including the Federal Clean Water Act and all applicable erosion and sediment control and flood plain regulations. To the extent practical, stormwater facilities shall not be located in areas determined to be jurisdictional waters through Section 404 of the Federal Clean Water Act and/or applicable state regulations.
9. **Protect Public Health, Safety & General Welfare:** The design of stormwater BMPs shall consider public health, safety, and general welfare. These considerations include, but are not limited to: preventing flooding of structures and travelways; preventing standing water in facilities, manholes, inlets, and other structures in a manner that promotes breeding of mosquitoes; preventing attractive nuisance conditions and dangerous conditions due to velocity or depth of water and/or access to orifices and drops; and preventing aesthetic nuisances due to excessive slopes, cuts and fills, and other conditions.
10. **Adherence to Stormwater Design Manual:** All stormwater BMPs shall be designed to the standards of the most current version of the Stormwater Design Manual, unless the Program Administrator grants the applicant a waiver or the applicant is exempt from such requirements.
11. **Treat Entire Land Development:** The stormwater design shall provide for treatment of runoff from the entire land development, to the extent practical.
12. **Landscape Plan:** The design of stormwater BMPs shall include a landscape plan detailing both the vegetation to be in the practice and how and who will manage and maintain the vegetation. The landscape plan shall be prepared in accordance with the Stormwater Design Manual.
13. **Pretreatment:** Each stormwater BMP shall have an acceptable form of water quality pretreatment, in accordance with the

pretreatment requirements found in the current Stormwater Design Manual.

14. **Stormwater Authority Discretion:** If hydrologic, geologic, topographic, or land use conditions warrant greater control than that provided by the minimum control requirements, the Program Administrator may impose additional requirements deemed reasonable and necessary to control the volume, timing, rate and/or quality of runoff. The Program Administrator may restrict the use of certain stormwater BMPs, require pretreatment above the minimum standards in the Stormwater Design Manual, and/or require a stormwater pollution prevention plan in certain circumstances. These include, but are not limited to: stormwater generated from stormwater hotspots, stormwater discharges that are conveyed with non-stormwater discharges, and stormwater discharged in important groundwater management areas or areas where geologic conditions are conducive to groundwater contamination (e.g., karst).
15. **Replicating Pre-Development Hydrology:** Stormwater management designs shall preserve the natural hydrologic functions, stream channel characteristics, and groundwater recharge of the pre-developed site, to the extent practical. This shall be accomplished by treating runoff at the source, disconnecting impervious surfaces, preserving or enhancing natural flow paths and vegetative cover, preserving or enhancing natural open spaces and riparian areas, and other measures that replicate pre-development hydrologic conditions. The Program Administrator shall exercise discretion in the application of this standard, especially in cases of infill development, redevelopment, or other unique circumstances.
16. **Natural Resources Inventory:** Stormwater management designs shall include an inventory of important natural resources features on the site, and these features shall be shown on the Stormwater Management Concept Plan that may be prepared in accordance with Section 154-3-A. Protection and/or conservation of the site's natural features may, at the discretion of the Program Administrator, be used and given credit as "Non-Structural Measures" in accordance with Section 154-4-K. The natural resources inventory shall include, but not be limited to the following: natural drainage features, important karst features, riparian buffers, wetlands, steep slopes, soils with high infiltration capacity, significant forest or prairie patches, and significant trees and natural communities.

17. **Treatment of Off-Site Stormwater:** Off-site stormwater conveyed through a land development shall be placed within an easement and conveyed in a manner that does not increase upstream or downstream flooding. Off-site stormwater shall be conveyed around on-site stormwater BMPs, unless the facilities are designed to manage the off-site stormwater. The Program Administrator may allow credits for treating off-site stormwater.
18. **Stream & Wetland Crossings:** All stream and wetland crossings subject to Section 404 and/or state stream and wetland regulations shall minimize impacts on streams and wetlands, to the extent practical and achievable, by crossing streams and wetlands at a right-angle, reducing the footprint of grading and fill, and utilizing bridges, open bottom arches, spans, or other structures that do not restrict or alter stream or wetland hydrology. If culverts are placed within stream and wetlands, at least one culvert shall be countersunk or otherwise placed to allow the formation of a natural channel or wetland bottom to allow movement of aquatic organisms.

*§ 154-4-B Water
Quality Criteria
Requirements*

1. **Water Quality Design Criteria:** In order to protect the quality of state waters and to control nonpoint source pollution, the following minimum technical criteria and statewide standards and minimum standards established by Clarke County for stormwater management shall be applied to the site of a land disturbing activity.
 - a. **New Development:** The total phosphorus load of new development projects shall not exceed 0.28 pounds per acre per year, as calculated pursuant to 154-4-C.
 - b. **New Development within UDA:** The total phosphorus load of new development projects located within designated UDA areas shall not exceed 0.45 pounds per acre per year, as calculated pursuant to 154-4-C.
 - c. **Development on Prior Developed Lands:** The total phosphorus load of a project occurring on prior developed lands shall be 20% less than the existing load from the site or 0.28 pounds per acre per year, whichever is less.
 - d. **Compliance:** Compliance with 154-4-B-1-a and 154-4-B-1-b shall be determined in accordance with 154-4-C .
 - e. **Water Quality Requirement across HUC:** 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 154-4-F.

2. **Off-Site Water Quality with a Comprehensive Watershed Stormwater Management Plan:** If a comprehensive watershed stormwater management plan has been adopted pursuant to 154-4-F for the watershed within which a project is located, then the Program Administrator may allow off-site controls in accordance with the plan to achieve the post-development pollutant load water quality technical criteria set out in section 154-4-B-1. Such off-site controls shall achieve the required pollutant reductions either completely off-site in accordance with the plan or in a combination of on-site and off-site controls. In either case, such controls shall be within the same HUC or the adjacent downstream HUC or within HUCs approved by the board.
3. **Off-Site Water Quality without a Comprehensive Watershed Stormwater Management Plan:** Where no plan exists pursuant to section 154-4-B-2, off-site controls may be used to meet the post-development pollutant load water quality technical criteria set out in section 154-4-B-1 provided:
 - a) The Program Administrator allows for off-site controls;
 - b) The applicant demonstrates to the satisfaction of the Program Administrator that off-site reductions equal to or greater than those that would otherwise be required for the site are achieved;
 - c) The development's runoff will not result in flooding or channel erosion impacts downstream of the site or any off-site treatment area and shall be controlled in accordance with 154-4-D;
 - d) Off-site controls must be located within the same HUC or the adjacent downstream HUC to the land disturbing site; and
 - e) The right to utilize the off-site control area and any necessary easements have been obtained and maintenance agreements for the stormwater management facilities have been established pursuant to 154-3-E and 154-3-F.
4. **Alternative Implementation:** The Program Administrator may choose to implement the provisions of this subsection through an

exception granted pursuant to 154-4-L in order to implement off-site treatment.

*§ 154-4-C Water
Quality Compliance*

1. **Water Quality Compliance:** Compliance with the water quality design criteria set out in 154-4-B shall be determined by utilizing the Pollutant - Runoff Reduction Method contained within the Virginia Stormwater Management Handbook or another methodology that is demonstrated to achieve equivalent or more stringent results and is approved by the Program Administrator.
2. **Pollutant Removal Efficiencies:** The BMPs listed in Table 1 shall be utilized to effectively reduce the pollutant 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 Clearinghouse website at <http://www.vwrrc.vt.edu/swc>. Other approved BMPs available on this website may also be utilized.

Table 1
BMP Pollutant Removal Efficiencies

Practice	Removal of Total Phosphorus by Runoff Volume Reduction (RR, as %) (based upon 1 inch of rainfall --90% storm)	Removal of Total Phosphorus by Treatment – Pollutant Concentration Reduction (PR, as %)	Total Mass Load Removal of Total Phosphorus (TR, as %)
Vegetated Roof 1	45	0	45
Vegetated Roof 2	60	0	60
Rooftop Disconnection ²	25 or 50 ¹	0	25 or 50 ¹
Rainwater Harvesting	up to 90 ^{3,5}	0	up to 90 ^{3,5}
Soil Amendments	Can be used to decrease runoff coefficient for turf cover at site. See designs for Rooftop Disconnection, Sheet Flow, and for Grass Channel practices.		
Permeable Pavement 1	45	25	59
Permeable Pavement 2	75	25	81
Grass Channel	10 or 20 ¹	15	23
Bioretention 1 (also applies to Urban Bioretention)	40	25	55
Bioretention 2	80	50	90
Infiltration 1	50	25	63
Infiltration 2	90	25	93
Dry Swale 1	40	20	52
Dry Swale 2	60	40	76
Wet Swale 1	0	20	20
Wet Swale 2	0	40	40
Sheet Flow to Open Space 1	25 or 50 ¹	0	25 or 50 ¹
Sheet Flow to Open Space 2 ⁵	50 or 75 ¹	0	50 or 75 ¹
Extended Detention Pond 1	0	15	15
Extended Detention Pond 2	15	15	31
Filtering Practice 1	0	60	60
Filtering Practice 2	0	65	65
Constructed Wetland 1	0	50	50
Constructed Wetland 2	0	75	75
Wet Pond 1	0	50 (45 ⁴)	50 (45 ⁴)
Wet Pond 2	0	75 (65 ⁴)	75 (65 ⁴)
¹ Lower rate is for Hydrologic Soil Group (HSG) class C and D soils; higher rate is for HSG class A and B soils. ² 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. ³ 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%. ⁴ Lower nutrient removals in parenthesis apply to wet ponds in costal plain terrain. ⁵ See BMP design specification of how additional pollutant removal can be achieved.			

- a) **Other allowed BMPs:** BMPs differing from those listed in Table 1 shall be reviewed and approved in accordance with procedures that have been established by the BMP Clearinghouse Committee and set out in Board approved guidance.
- b) **Limitations:** The Program Administrator may establish limitations on the use of specific BMPs following the submission of the proposed limitation and written justification to the department.
- c) **Partial Site Development:** Where the land-disturbing activity only occurs on a portion of the site, the Program Administrator may review the stormwater management plan based upon the portion of the site that is proposed to be developed, provided that the Program Administrator 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.

*§ 154-4-D Water
Quantity*

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 §10.1-603.4.

1. **Channel Protection:** Concentrated stormwater flow from the site and off-site 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:
 - a) 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 post-development peak flow rate from the 2-year 24-hour storm without causing erosion of the system.
 - b) 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.
 - c) 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 Program Administrator 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 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 pre-developed condition.
- $RV_{\text{Pre-Developed}}$ = The volume of runoff from the site in the pre-developed condition.
- $RV_{\text{Developed}}$ = The volume of runoff from the developed site.

d) Except as set out in subsection e, 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 Program Administrator to achieve equivalent or more stringent results and is approved by the board:

- $Q_{\text{Developed}} * RV_{\text{Developed}} \leq Q_{\text{Good Pasture}} * RV_{\text{Good Pasture}}$, where
- $Q_{\text{Developed}}$ = The allowable peak flow rate from the developed site. Such peak flow must be less than or equal to $Q_{\text{Pre-Developed}}$
- $Q_{\text{Good Pasture}}$ = The peak flow rate from the site in a good pasture condition.
- $RV_{\text{Good Pasture}}$ = The volume of runoff from the site in a good pasture condition.
- $RV_{\text{Developed}}$ = The volume of runoff from the developed site.
- However, in case that a pre-developed conditions is forested, both the peak flow rate and the volume of runoff from the developed site shall be held to the forest condition.

- e) This subsection 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 Program Administrator to achieve equivalent or more stringent results and is approved by the board:
- $Q_{\text{Developed}} * R_{V_{\text{Developed}}} < Q_{\text{Pre-Developed}} * R_{V_{\text{Pre-Developed}}}$, where
 - $Q_{\text{Developed}}$ = The allowable peak flow rate of runoff from the developed site. Such peak flow must be less than $Q_{\text{Pre-Developed}}$
 - $Q_{\text{Pre-Developed}}$ = The peak flow rate of runoff from the site in the pre-developed condition.
 - $R_{V_{\text{Pre-Developed}}}$ = The volume of runoff from the site in the pre-developed condition.
 - $R_{V_{\text{Developed}}}$ = The volume of runoff from the developed site.

2. **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:

- a. 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 post-development peak flow rate from the 10-year 24-hour storm within the manmade stormwater conveyance system.
- b. 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.
- c. 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 post-development peak flow rate from the 10-year 24-hour storm within the system.

- d. 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 post-development peak flow rate for the 10-year 24-hour storm that shall not exceed the pre-development peak flow rate from the 10-year 24-hour storm based on good pasture conditions, unless the a pre-developed conditions is forested, in which case the peak flow rate from the developed site shall be held to the forest condition.
 - e. Subsection 2-d 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.
 - f. A Program Administrator 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.
3. **One Percent Rule:** If either of the following criteria are met, subsections 1 and 2 do not apply, nor is the analysis of subsection 7 required:
- a) 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
 - b) Based on peak flow rate. Based on the post-development 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.

4. **Runoff Volume:** 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 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.
5. **Runoff Computations:** 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 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 Program Administrator that actual site conditions warrant such considerations.
6. **Site Verification:** Pre-development 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. Guidance provided in the Virginia Stormwater Management Handbook shall be considered appropriate standards.
7. **Channel Impacts:** Except where the compliance options under subdivisions 1 d and e and 2 d and e 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 Program Administrator and provided to the department. Such analysis shall include estimates of runoff from the developed site and the entire upstream watershed which contributes to that point of discharge. Good engineering practices and calculations in accordance with department guidance shall be used to evaluate post development 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 Program Administrator 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.

§ 154-4-E Design Storms and Hydrologic Methods

1. **Design Storms:** Unless otherwise specified, the prescribed design storms are the 1-year, 2-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.
2. **Design Conditions:** Unless otherwise specified, all hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
3. **Hydrologic Methods:** 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.
4. **Alternative Methods:** The Program Administrator may allow for the use of the Rational Method or Modified 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.

§ 154-4-F Comprehensive Watershed Stormwater Management Plans

1. **Comprehensive Watershed Stormwater Management 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 which is satisfactory to the local program to prevent downstream erosion and flooding.
2. **Plan Amendments:** 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. **Plan Implementation:** During the plan's implementation, the Program Administrator shall account for nutrient reductions accredited to the BMPs specified in the plan.
4. **Participation of State and Federal Agencies:** State and federal agencies may participate in comprehensive watershed stormwater management plans where practicable and permitted by the Program Administrator.

*§ 154-4-G
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.

*§ 154-4-H Linear
Development
Projects*

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

*§ 154-4-I
Stormwater
Management
Impoundment
Structures or
Facilities*

1. **Facilities within Wetlands or Streams:** Construction of stormwater management impoundment structures or facilities within tidal or nontidal wetlands and perennial streams is prohibited unless allowed by the Program Administrator and all required permits are obtained.
2. **Facilities in Floodplain:** Construction of stormwater management impoundment structures or facilities within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain is not recommended.
3. **Facilities not covered by Impounding Structure Regulations:** 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 for the 100-year storm event.
4. **Facilities in KARST:** Construction of stormwater management impoundment structures or facilities may occur in karst areas only after a 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. *The study methodology shall follow the approach outlined in*

CSN Technical Bulletin No. 1: Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed Version 2.

5. **Discharges from Facilities in KARST:** Discharge of stormwater runoff to a karst feature shall meet the water quality criteria set out in 154-4-B and the water quantity criteria set out in 154-4-C. 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.

§ 154-4-J Sensitive Waters and Wetlands: Enhanced Criteria

Land development that discharges to sensitive waters and wetlands shall meet enhanced criteria. These may include, but are not limited to:

1. **Nutrient-Sensitive Waters:** Enhanced control of nutrients and sediment for discharges to drinking water reservoirs and lakes.
2. **Cold-Water Fisheries:** Control of temperature increases for discharges to designated cold-water fisheries.
3. **Groundwater:** Enhanced recharge and pre-treatment requirements to protect groundwater supplies.
4. **Wetlands:** The control of impacts to wetland hydrology, including limiting fluctuations to the natural or pre-development wetland hydrology.
5. **Impaired Waters:** Enhanced bacteriological or pollutant controls for discharges to impaired waters, as designated in the most recent 303(d) list produced by EPA or the appropriate State agency.

In these cases, the Program Administrator may require additional storage, treatment, filtering, infiltration, or other techniques. The use of non-structural practices shall be used to the maximum extent practical to meet enhanced criteria.

In making its determination to apply enhanced criteria, the Program Administrator shall consider cumulative impacts and also the land development's adherence to the land use plans and policies of Clarke County, including the promotion of infill and redevelopment in particular areas.

§ 154-4-K Non-Structural Measures

The use of nonstructural measures is encouraged to reduce sole reliance on structural stormwater management measures.

§ 154-4-L Program Administrator Exceptions

1. A Program Administrator may grant exceptions to the provisions of this ordinance through an administrative process. A request for an exception, including the reasons for making the request, shall be submitted, in writing, to the Program Administrator. An exception may be granted, provided that:
 - a) the exception is the minimum necessary to afford relief,
 - b) 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,
 - c) granting the exception will not confer on the permittee any special privileges that are denied to other permittees who present similar circumstances, and
 - d) exception requests are not based upon conditions or circumstances that are self-imposed or self-created.
2. Economic hardship alone is not sufficient reason to grant an exception from the requirements of this chapter.
3. Under no circumstance shall the Program Administrator grant an exception to the requirement that the land-disturbing activity obtain a permit.
4. A record of all exceptions applied for and granted shall be maintained by the Program Administrator.

§ 154-4-M Waivers

Every applicant shall provide for stormwater management as required by this Ordinance, unless a written request for a waiver is filed and approved by the Program Administrator. Prior to applying for a waiver request, the applicant must demonstrate that all reasonable options to comply with Ordinance have been exhausted, including the use of non-structural measures (Section 154-4-K).

The request for a waiver must be in writing and must include waiver fee specified in Section 154-3-I. The Program Administrator shall respond in writing by granting or denying the waiver in full, or granting the waiver with any necessary conditions or mitigation measures to protect public health, safety, and the environment. The applicant shall note any full or

partial waivers, and conditions imposed by the Program Administrator, on the stormwater management design plan.

§ 154-5. Construction Inspection for Permanent Stormwater BMPs

§ 154-5-A Notice of Construction Commencement The applicant must notify the Program Administrator before the commencement of construction. In addition, the applicant must notify the Program Administrator in advance of construction of critical components of the stormwater practices on the approved stormwater management design plan. The Program Administrator may, at its discretion, issue verbal or written authorization to proceed with critical construction steps, such as installation of permanent stormwater practices based on stabilization of the drainage area and other factors.

- § 154-5-B Inspections*
1. The Program Administrator 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.
 2. The person responsible for the development project or their designated agent shall submit to a Program Administrator as built plans 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 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 Program Administrator shall have the construction record drawing and certification on file prior to the release of the portion of any performance bond or surety associated with the stormwater management facility.
 3. The owner(s) of stormwater management facilities shall be required to conduct inspections in accordance with an inspection schedule in a recorded maintenance agreement, and shall submit written inspection and maintenance reports to the Program Administrator upon request. Such reports, if consistent with a board approved inspection program established in subsection 4, may be utilized by the Program Administrator if the inspection is conducted by a person who is licensed as a professional engineer, architect, 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 Program Administrator

4. Inspection reports shall be generated and kept on file in accordance with 154-6-C for all stormwater management facilities inspected by the Program Administrator.

*§ 154-5-C
Construction
Inspections by
Program
Administrator or its
Representatives*

The Program Administrator or its representative shall conduct periodic inspections of the stormwater practices shown on the approved stormwater management design plan, and especially during critical installation and stabilization steps. All inspections shall be documented in writing. The inspection shall document any variations or discrepancies from the approved plan, and the resolution of such issues. Additional information regarding inspections can be found in the Stormwater Design Manual. A final inspection by the Stormwater Authority is required before any performance bond or guarantee, or portion thereof, shall be released.

*§ 154-5-D
Stormwater
Certificate of
Completion*

Subsequent to final installation and stabilization of all stormwater BMPs shown on the stormwater management design plan, submission of all necessary as-built plans, and final inspection and approval by the Program Administrator, the Program Administrator shall issue a Stormwater Certificate of Completion for the project. In issuing such a certificate, the Program Administrator shall determine that all work has been satisfactorily completed in conformance with this Ordinance.

§ 154-6. Ongoing Maintenance for Stormwater BMPs

*§ 154-6-A
Stormwater
Management Facility
Maintenance*

1. 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. The government entity implementing the Program Administrator shall be a party to each maintenance agreement.
2. The Program Administrator shall be notified of any transfer or conveyance of ownership or responsibility for maintenance of a stormwater management facility.
3. The Program Administrator shall require right-of-entry agreements or easements from the property owner for purposes of inspection and maintenance.

*§ 154-6-B
Maintenance
Responsibility*

The responsible party named in the recorded stormwater maintenance agreement (Section 154-3-F) shall maintain in good condition and promptly repair and restore all structural and non-structural stormwater BMPs and all necessary access routes and appurtenances (grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices). Such repairs or

restoration and maintenance shall be in accordance with the approved stormwater management design plan, the stormwater maintenance agreement, and the stormwater maintenance plan.

*§ 154-6-C
Maintenance
Inspection by
Program
Administrator or its
Representative*

The Program Administrator or its representative shall conduct periodic inspections for all stormwater practices for which a Stormwater Certificate of Completion has been issued in accordance with Section 154-5-D. All inspections shall be documented in writing. The inspection shall document any maintenance and repair needs and any discrepancies from the stormwater maintenance agreement and stormwater maintenance plans.

*§ 154-6-D Report
and Recordkeeping.*

The responsible party shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five (5) years. These records shall be made available to the Program Administrator during inspection of the practice and at other reasonable times upon request.

*§ 154-6-E Failure to
Provide Adequate
Maintenance*

In the event that the stormwater BMP has not been maintained and/or becomes a danger to public safety or public health,

- The Program Administrator shall notify the responsible party by registered or certified mail.
- The notice shall specify the measures needed to comply with the maintenance agreement and the maintenance plan and shall specify that the responsible party has thirty (30) days or other time frame mutually agreed to between the Program Administrator and the responsible party, within which such measures shall be completed.
- If such measures are not completed, then the Program Administrator shall pursue enforcement procedures pursuant to Section 7 of this Ordinance.
- If a responsible person fails or refuses to meet the requirements of an inspection report, maintenance agreement, or maintenance plan,
- The Program Administrator, after thirty (30) days written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the practice in proper working condition.

- The Program Administrator may assess the responsible party of the practice for the cost of repair work which shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by Clarke County.

§ 154-7. Violations, Enforcement and Penalties

§ 154-7-A Violations Any action or inaction which violates the provisions of this Ordinance, the requirements of an approved stormwater management design plan or permit, and/or the requirements of a recorded stormwater maintenance agreement may be subject to the enforcement actions outlined in this Section. Any such action or inaction is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

§ 154-7-B Notice of Violation If the Program Administrator determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management design plan, a recorded stormwater management maintenance agreement, or the provisions of this ordinance, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefore, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation shall contain:

1. The name and address of the owner or the applicant or the responsible person;
2. The address or other description of the site upon which the violation is occurring;
3. A statement specifying the nature of the violation;
4. A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the stormwater management design plan, the stormwater maintenance agreement, or this ordinance and the date for the completion of such remedial action;
5. A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
6. A statement that the determination of violation may be appealed to

Board of Zoning Appeals by filing a written notice of appeal within thirty (30) days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient).

§ 154-7-C Penalties In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed.

1. **Stop Work Order:** The Program Administrator may issue a stop work order which shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein, provided the stop work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.
2. **Withhold Certificate of Occupancy:** The Program Administrator or Building Official may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
3. **Suspension, Revocation or Modification of Permit:** The Program Administrator may suspend, revoke or modify the permit authorizing the land development project. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the Program Administrator may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

§ 154-7-D Appeals The decisions or orders of the Program Administrator shall be final. Further relief shall be to a court of competent jurisdiction.

*§ 154-7-E
Remedies not
Exclusive* The remedies listed in this Ordinance are not exclusive of any other remedies available under any applicable federal, state or local law.

Amendments Chapter
154

2010-08-17

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