



*Docket Item #4*

## ***Text Amendment #2013-0014***

### ***Environmental Management Ordinance***

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<b>Issue:</b> Consideration of revisions to Article XIII of the City Zoning Ordinance, the Environmental Management Ordinance, to incorporate the new state stormwater management regulations.	Planning Commission Hearing:	February 4, 2014
	City Council Hearing:	February 22, 2014

**Staff:** Rich Baier, Director, Transportation and Environmental Services, [rich.baier@alexandriava.gov](mailto:rich.baier@alexandriava.gov)  
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**PLANNING COMMISSION ACTION, FEBRUARY 4, 2014:** On a motion by Commissioner Wagner, seconded by Commissioner Lyman, the Planning Commission voted to initiate the text amendment. The motion carried on a vote of 7 to 0.

On a motion by Commissioner Wagner, seconded by Commissioner Lyman, the Planning Commission voted to recommend approval of the request, subject to the requested amendment and compliance with all applicable codes, ordinances and staff recommendations. The motion carried on a vote of 7 to 0.

**Reason:** The Planning Commission agreed with the staff analysis.

**Speakers:**

Leann Childress with Mcquire Woods LLP spoke in favor of approving the ordinance.

Poul Hertel representing the Federation of Civic Associations spoke in favor of approving the ordinance with an amendment to section 13-122 to extend the timeline for reconstruction of noncomplying structures destroyed by natural disasters from the two year requirement currently given in the ordinance. Additionally, Mr. Hertel raised a concern unrelated to the current ordinance adoption regarding properties that pre-dated stormwater regulations and those properties meeting any future stormwater requirements.

The ordinance is being revised to incorporate new State Stormwater Management Regulations mandated by the Commonwealth of Virginia to be adopted and implemented at the local level. The adopted ordinance will establish new, more stringent stormwater quantity and quality criteria for development which must be administered by the City's Local Virginia Stormwater Management Program (VSMP). The regulations also establish the setting of a new fee structure to help offset the additional operational costs associated with implementing the new regulations.

## **I. Background**

The Virginia General Assembly has mandated that all local governments must adopt new stormwater management regulations designed to reduce the amount of "nonpoint source" pollution and the volume of water flowing to the Chesapeake Bay. The City must adopt the new regulations into ordinance by May 15, 2014 and implement the new standards by July 1, 2014.

The state stormwater regulations also allows local governments to establish a fee structure for the administration of a "local program" based on the new, stricter regulations as adopted.

### Internal Stakeholder Discussions and Outreach

The City has remained engaged in the effort to understand, shape and refine the impact of the state stormwater regulations through engaging in regional and local meetings with other affected localities, industry and the regulatory community. Over the last two and a half years, staff has been engaged in numerous discussions that focused on how the implementation of the new regulations at the local level will affect staff through the administration of the program, and how the development community will be impacted through increased water quality requirements.

The City Manager's Stormwater Steering Committee and Stormwater Work Group were charged to discuss overarching changes to the stormwater management regulations. These two internal stakeholder groups, along with representatives acting on behalf of the members in response for the need to discuss internal and external implications, took up the issues and made recommendations for this text amendment. In addition to these internal discussions, staff provided multiple outreach opportunities to external stakeholders in the community to gather input, inform of the new requirements, and craft the appropriate changes within the framework on the mandated requirements. The following highlights the key text amendments discussed by internal and external stakeholders over the last year, and provides for staff recommendations to address those changes.

Staff has made presentations to the NVBIA, Chamber of Commerce, Environmental Policy Commission (EPC) and Federation of Civic Association and sought their comments and input which has been incorporated into the development of the amendments to the ordinance. In addition, the EPC in collaboration with Transportation

and Environmental Services (T&ES), held a public information meeting on November 18, 2013.

## **II. Proposed Text Changes**

The following proposed text amendments to the Article XIII of the Zoning ordinance, the Environmental Management Ordinance, represent the required changes mandated by the Virginia Stormwater Management Regulations 9VAC25-870 et seq. The Virginia Stormwater Law (§62.1-44.15:33) also allows for retaining existing, more stringent local requirements for incorporation into the amended ordinance.

Five key tasks are accomplished by this text amendment and will be discussed in further detail below:

1. Adoption of new, State-mandated stormwater development technical criteria
  - a. New water quality criteria
  - b. New water quantity criteria
  - c. Grandfathering
2. Retaining existing, more stringent regulations that protect water quality
  - a. Alexandria Water Quality Volume Default (AWQVD)
  - b. Protecting Intermittent Streams
  - c. Flood Protection Program
3. Adjusting the area on which stormwater regulations apply
4. State mandated provision for a planning commission hearing for aggrieved applicants or person(s)
5. Adoption of new, State-mandated Virginia Stormwater Management Program General VPDES Permit for Discharges of Stormwater from Construction Activities
  - a. Mandated requirements
  - b. Fee Structure

### **1. Adoption of new, State-mandated stormwater development technical criteria**

Staff is seeking to revise existing stormwater development criteria with the new state-mandated standards that must be implemented by every local jurisdiction in Virginia by July 1, 2014. Numerous reviews and revisions by staff and internal stakeholder groups have produced a final draft ordinance. The final ordinance is due to the Virginia Department of Environmental Quality (VDEQ) no later than May 15, 2014. The tougher standards outlined herein are the result of Virginia's efforts to restore water quality to the Chesapeake Bay.

#### ***a. New Water Quality Standards***

The proposed water quality criterion is based on a numerical standard of pounds of Phosphorus generated for the site annually. Virginia law requires 20% reduction for redevelopment disturbing greater than or equal to one acre, 10% reduction for redevelopment disturbing less than one acre, and a maximum of 0.41 pounds per acre for new development. The proposed standards are a shift away from the City's current practice of using impervious coverage as a surrogate for Phosphorus, with the

applicant using the existing worksheets to calculate loads. The proposed numerical Phosphorus standards will be calculated using the Virginia Runoff Reduction Method spreadsheets. A summary of the changes is provided below in tabular form.

Table 1. Water Quality Standards for Development and Redevelopment in Alexandria

	Existing	State standard	Proposed
New development of single-family home (e.g. vacant lot) less than 1ac	1) Post phosphorus load less than load equivalent to 41% impervious (approx. 0.91 lbs/ac), and 2) must treat first ½ inch (AWQVD)	0.41 lbs of Phosphorus per acre; State regulations provide local option to exempt single-family homes that disturb < 1 acre	Exempt from State standard; must treat first ½ inch (AWQVD) <sup>1</sup>
New development of single-family home (e.g. vacant lot) part of larger common development	1) Post phosphorus load less than load equivalent to 41% impervious (approx. 0.91 lbs/ac) and 2) must treat ½” (AWQVD)	0.41 lbs of Phosphorus per acre	0.41 lbs of Phosphorus per acre and shall treat ½ inch (AWQVD) <sup>1</sup>
Any Development	1) If existing and proposed impervious <41%, only requirement is to meet AWQVD. 2) If existing impervious <41% and proposed >41%, post pollutant load shall be equal to site at 41% and shall meet AWQVD. 3) If existing impervious >41% and proposed impervious >41%, then reduce existing pollutant load by 10% and shall meet AWQVD.	<i>New Development</i> 0.41 lbs of Phosphorus per acre and shall treat AWQVD  <i>Redevelopment</i> 20% reduction if land disturbance greater than or equal to 1 acre; 10% reduction if land disturbance is less than one acre; reduction cannot exceed 0.41 lbs of Phosphorus per acre; must meet AWQVD	<i>New Development</i> 0.41 of Phosphorus lbs per acre and shall treat AWQVD <sup>1</sup>  <i>Redevelopment</i> 20% reduction in phosphorus load if land disturbance is greater than or equal to 1 acre; 10% reduction if land disturbance is less than one acre; reduction cannot exceed 0.41 lbs of Phosphorus per acre; all scenarios shall meet AWQVD <sup>1</sup>

<sup>1</sup>Staff proposed maintaining the existing AWQVD requirement for all development, to include SFR.

#### Exemption of Single Family Homes

The major issue to consider with respect to the new water quality standards is the best way to handle new development and redevelopment of individual, single family homes. State law and the attendant state regulations allow the City to exempt single family residential (SFR) development disturbing less than one acre from the water quality criteria. Exempting SFR development would benefit homeowners by providing greater flexibility in compliance options and alleviate the difficulty in

maintaining BMPs, while reducing the City's operational cost of administering the BMP inspection and enforcement program. However, SFR development would still be required to meet existing Alexandria Water Quality Volume Default (AWQVD) requirement.

Staff recommends exempting SFR development (< 1 ac) from the water quality criteria Phosphorus removal requirement, yet maintaining the existing Alexandria Water Quality Volume Default (AWQVD) requirement, while allowing the applicant flexibility to either install BMP or pay a full fee in lieu into the Alexandria Water Quality Improvement Fund to satisfy this requirement.

***b. New Water Quantity Standards***

The new State regulations for water quantity control address flood protection and channel protection in more detail. These are designed to protect downstream properties and waterways from damage caused by increased volume and peak flow rate of stormwater as a result of development. Under the new requirements, stream channel protection criteria and flood protection criteria are now situational. Stream channel protection requirements will depend on whether the receiving channel is manmade, modified natural, or natural. Flood protection will depend on whether or not there is existing localized flooding. The general concept of the new requirements is to encourage a reduction in stormwater volume through the use of on-site infiltration techniques, with the peak flow of the stormwater that discharges from the site to be controlled through on-site detention. The channel protection measures have been established to prevent channel erosion from increased flow of stormwater. The flood protection measures will ensure that downstream conveyances will not be flooded. For areas with existing localized flooding issues, development must decrease flow rates from the existing condition or upgrade the channel to accommodate the additional flows.

In addition to the new state minimum standards, the ordinance will continue to implement flood protection measures consistent with the City's flood control program and maintain more stringent requirements for the limits of analysis, reduction in peak flows for the post-development condition and waive detention requirements for flood-prone areas.

***c. Grandfathering and Time Limits on Applicability***

**Grandfathering**

The proposed text amendments must incorporate the grandfathering provisions and new state regulatory language that details the qualifications for projects to be grandfathered from the new state water quality and water quantity criteria. Grandfathered projects shall be subject to the existing water quality standards provided they meet one of the following options:

Option A:

- A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto:
  - was approved prior to July 1, 2012,
  - provided a layout,
  - will comply with the existing technical criteria, and has not been modified which results in an increase in the Phosphorus load and in the volume or rate of runoff
- a state construction general permit was issued after July 1, 2014

Option B:

- A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto:
  - was approved prior to July 1, 2014,
  - provided a layout,
  - will comply with the existing technical criteria, and has not been modified which results in an increase in the Phosphorus load and in the volume or rate of runoff
- a state construction general permit was issued before July 1, 2014

Time Limits on Applicability

This is a form of “grandfathering” from the new stormwater regulations that is directly related to the timeframe when a development project has been issued coverage under the state general permit for construction activities. Land-disturbing activities shall be subject to existing water quality criteria, provided:

- Obtain a state permit or commence land disturbance prior to July 1, 2014
  - Subject to existing criteria for two additional permit cycles (till June 30, 2024). Portions of the project not under construction before the end date shall become subject to any new technical criteria.

The follow provides a summary of grandfathering in tabular form.

Table 2. Grandfathering and Timing of State Permit Coverage

Approved Planning Document	State Permit Obtained	Grandfathered Until
Before July 1, 2012	On or After July 1, 2014	June 30, 2019
Before July 1, 2012	Before July 1, 2014	June 30, 2024
July 1, 2012 – June 30, 2014	Before July 1, 2014	June 30, 2024
July 1, 2012 – June 30, 2014	On or After July 1, 2014	Not Grandfathered
After July 1, 2014	After July 1, 2014	Not Grandfathered

## **2. Retaining existing, more stringent regulations that protect water quality**

The State allows existing requirements that are more stringent than the new water quality criteria to be retained in local the ordinance and implemented with the new program requirements without further justification. Maintaining more stringent requirements will provide additional resources to protect water quality that can be applied towards reductions required by the Chesapeake Bay Total Maximum Daily Load (TMDL) pollution budget.

### ***a. Alexandria Water Quality Volume Default***

This existing requirement to treat the first ½ inch of stormwater runoff provides additional Phosphorus reductions during development and provides additional incremental load reductions by treating existing impervious areas during redevelopment. Implementing these practices during redevelopment is more efficient and cost-effective than the City trying to retrofit this same impervious area. Additionally, this provides for additional water quality improvements elsewhere when the fee in lieu of option is employed to meet this requirement. The benefit to the City is estimated at an additional 60 – 120 acres treated over the next 15 years.

Staff recommends retaining the AWQVD along with the proposed text amendments.

### ***b. Protection of Intermittent Streams***

These streams having flow during certain times of the year, provide water quality benefits, support biological communities, and increase an increased quality of life through their aesthetics. Existing requirements limit development within the 50-foot buffer similarly to the 100-foot RPA for perennial streams.

Staff recommends retaining this requirement.

### ***c. Flood Control Program***

The existing ordinance contains measures consistent with the City's flood control program, such as more stringent requirements for the limits of analysis, reduction in peak flows for the post-development condition, and waiving detention requirements for flood-prone areas. In addition to the new state minimum standards, the text amendments will retain these more stringent requirements.

Staff recommends retaining these requirements.

## **3. Adjusting the area on which stormwater regulations apply**

The existing ordinance requires the entire tax parcel to meet water quality and quantity regulations once triggered. Flexibility was provided via an option to pursue a master plan approach for larger tax parcels that only disturb a small percentage of the overall parcel. The revised language in the proposed ordinance allows greater

flexibility for smaller parcels by allowing them to focus only on project specific limits of disturbance if less than 50% of the tax parcel is disturbed. Once more than 50% of the parcel is disturbed stormwater requirements must be applied to the entire tax parcel as in the existing ordinance. The proposed ordinance retains flexibility for large tax parcels, now defined as greater than 5 acres in size, to pursue a master plan approach if disturbing greater than 50% of the tax parcel.

**4. State mandated provision for a planning commission hearing for aggrieved applicants or person(s)**

The amended ordinance includes a new section as mandated by the State that requires the planning commission to hold a hearing if a person or applicant subject to the ordinance is aggrieved by any action of the City taken without a formal hearing. The hearings shall be conducted at regular or special meetings of the planning commission or by at least one member of the planning commission designated by the planning commission to conduct such hearings.

**5. Adoption of new, State-mandated Virginia Stormwater Management Program General VPDES Permit for Discharges of Stormwater from Construction Activities**

Starting July 1, 2014 the new state stormwater regulations require City staff to implement these text amendments and administer a local VSMP. This includes the General VPDES Permit for Discharges of Stormwater from Construction Activities for development projects with one acre or more of land disturbance, for which DEQ is the current administering authority.

***a. Mandated Requirements***

The State regulations contain mandatory changes to the ordinance which are captured in the proposed text amendments. This responsibility includes the enforcement of Stormwater Pollution Prevention Plans (SWPPPs) land-disturbing activities subject to the State general construction permit. While this is a new duty, many of the elements contained within a SWPPP are already reviewed as part of the City's environmental and site plan review process. The change will eliminate duplicative efforts between the City and DEQ and helps streamline stormwater management permitting. DEQ will no longer review applications for permit coverage, but will retain oversight of the program. The language included in the proposed text amendments outlines SWPPP requirements. (See Attachment 1.)

***b. Fee Structure***

The State regulations establish a fee structure for the administration of the local VSMP, which includes receipt of fees by the locality for operational costs associated with administration of the program, as well as a defined portion (28%) of the total fees established in the regulations to be paid to DEQ for their continued oversight of the VSMP at the State level. State regulations allow the City to adjust the operational

portion of the total fees, and thereby the level provided to the City, while maintaining the defined portion to be submitted to DEQ.

The fee structure will be approved by City Council pursuant to the process established in Section 13-104(D) of the Zoning Ordinance. Staff is recommending that the total fees be nominally adjusted up 10% to help offset the increase burden of administering new VSMP requirements. The Fee Structure is provided in Attachment 2.

### **III. Recommendation**

Staff recommends that the Planning Commission initiate and recommend approval of the proposed text amendments.

#### **Attachments:**

Attachment 1: Amendments to the Environmental Management Ordinance

Attachment 2: Fee Structure

## ARTICLE XIII. - ENVIRONMENTAL MANAGEMENT <sup>[1]</sup>

<sup>(1)</sup> **Editor's note**— Ord. No. 4443, § 1, adopted April 22, 2006, repealed Article XIII, sections 13-100—13-120, in its entirety and replaced it with a new Article XIII, sections 13-100—13-120. Former Article XIII pertained to similar material and derived from Ord. No. 4358, §§ 1, 2, 6-12-04.

### Sec. 13-100. - General findings.

#### 13-101 - Purpose.

#### 13-102 - Authority.

#### 13-103 - Definitions.

#### 13-104 - Administration.

#### 13-105 - Designation of Chesapeake Bay Preservation Area Overlay District.

#### 13-106 - Establishment of CBPA boundaries.

#### 13-107 - Development, redevelopment, and uses permitted in RPAs.

#### 13-108 - Development and uses permitted in RMAs.

#### 13-109 - General performance requirements for CBPAs.

#### 13-110 - Alternative stormwater management equivalency options and establishment of the Alexandria Water Quality Improvement Fund.

#### 13-111 - Development review process.

#### 13-112 - Environmental site assessment.

#### 13-113 - Stormwater pollution prevention plan.

#### 13-114 - Stormwater management plan.

#### 13-115 - Stormwater management plan review.

#### 13-116 - Pollution prevention plan.

#### 13-117 - Water quality impact assessment.

#### 13-118 - Final plans.

#### 13-119 - Exceptions.

#### 13-120 - Appeals.

#### 13-121 - Hearings.

#### 13-122 - Noncomplying land uses and structures.

#### 13-123 - Exemptions.

#### 13-124 - Time limits on applicability and grandfathering.

#### 13-125 - Monitoring and inspections.

#### 13-126 - Penalties.

### **Sec. 13-100. - General findings.**

The Chesapeake Bay is one of the most productive estuaries in the world, providing substantial economic and social benefits to the people of the Commonwealth of Virginia. Healthy state and local economies are integrally related to and dependent upon the health of the Chesapeake Bay. The general welfare of the people of the Commonwealth depends upon the health of the Bay.

The waters of the Chesapeake Bay and its tributaries, including the Potomac River and Alexandria's local streams, have been degraded significantly by point source and nonpoint source pollution, which threatens public health and safety and the general welfare.

#### **13-101 - Purpose.**

(A) It is the policy of the City of Alexandria, Virginia to protect the quality of water in the Chesapeake Bay and its tributaries and, to that end, to require all land uses and land development

in the city to:

- (1) Safeguard the waters of the commonwealth from pollution;
- (2) Prevent any increase in pollution of state waters;
- (3) Reduce existing pollution of state waters; and
- (4) Promote water resource conservation.

(B) To fulfill this policy, this Article XIII is adopted to minimize potential pollution from stormwater runoff, minimize potential erosion and sedimentation, reduce the introduction of harmful nutrients and toxins into state waters, maximize rainwater infiltration while protecting groundwater, and ensure the long-term performance of the measures employed to accomplish the statutory purpose.

(C) The provisions of this Chapter shall be deemed severable, and the invalidity or unenforceability of any individual provision or section hereof shall not affect the validity and enforceability of the remaining provisions of the Chapter.

### **13-102 - Authority.**

This Article XIII is issued under the authority of section 62.1-44.15:73 of the Code of Virginia (the Chesapeake Bay Preservation Act), 62.1-44.15:24 et seq of the Code of Virginia (the Virginia Stormwater Management Act) and attendant regulations as adopted by the Virginia State Water Control Board. Code of Virginia section 62.1-44.15:27 specifically requires the City to adopt a Virginia Stormwater Management Program.. Authority to protect water quality is also provided by section 15.2-2283 of the Code of Virginia.

### **13-103 - Definitions.**

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

(A) *Administrator*. The person responsible for the administration of this Article XIII, which in the city shall be the director of T&ES or his/her designee.

(B) *Alexandria Water Quality Volume Default*. The volume equal to the first 0.5 inch of runoff multiplied by the total impervious area of the site as defined herein.

(B) *Applicant*. A person who has submitted, or plans to submit, a plan of development or an exception request to the city or a person seeking approval from the city for any activity that is regulated under this article.

(C) *Best management practice (BMP)*. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices, including both structural and nonstructural practices, to prevent or reduce the pollution of surface water and groundwater systems from the impacts of land-disturbing activities.

(D) *Buffer area*. An area of natural or established vegetation managed to protect other components of a resource protection area and state waters from significant degradation due to land disturbances. To effectively perform this function, the buffer area will achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients. A 100-foot wide buffer area shall be

considered to meet this standard.

(E) *Clean Water Act or CWA* means the federal Clean Water Act (33 U.S.C §1251 et seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any subsequent revisions thereto.

(F) *Common plan of development or sale*. A contiguous area where separate and distinct construction activities may be taking place at different times on different schedules.

(G) *Control measure*. Any best management practice or stormwater management facility, or other method used to minimize the discharge of pollutants to state waters.

(H) *Department (DEQ)*. The Virginia Department of Environmental Quality.

(I) *Development*. Land disturbance and the resulting landform associated with the construction or substantial alteration of residential, commercial, industrial, institutional, recreational, transportation, or utility facilities or structures or the clearing of land for non-agricultural or non-silvicultural purposes.

(J) *Director of T&ES/Director of P&Z*. Director of T&ES means the director of transportation and environmental services of the City of Alexandria. Director of P&Z means the director of planning and zoning of the City of Alexandria.

(KF) *Floodway*. All lands as defined in subsection 6-303(K) of this ordinance.

(L) *General permit*. The state permit titled General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities found in 9VAC25-880 et seq) of the Virginia Stormwater Management Regulations authorizing a category of discharges under the federal Clean Water Act and the Virginia Stormwater Management Act within a geographical area of the Commonwealth of Virginia.

(M) *Highly erodible soils*. Soils (excluding vegetation) with an erodibility index (EI) from sheet and rill erosion equal to or greater than eight. The erodibility index for any soil is defined as the product of the formula  $RKLS/T$ , where K is the soil susceptibility to water erosion in the surface layer; R is the rainfall and runoff; LS is the combined effects of slope length and steepness; and T is the soil loss tolerance.

(N) *Highly permeable soils*. Soils with a given potential to transmit water through the soil profile. Highly permeable soils are identified as any soil having a permeability equal to or greater than six inches of water movement per hour in any part of the soil profile to a depth of 72 inches (permeability groups "rapid" and "very rapid"), as found in the "National Soil Survey Handbook" of November 1996 in the "Field Office Technical Guide" of the U.S. Dept. of Agriculture Natural Resources Conservation Service.

(O) *Impervious cover*. A surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to: roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surface.

(P) *Intermittent stream*. Any natural or engineered channel (measured from top of bank) with flowing water during certain times of the year, when groundwater provides for stream flow. During dry

periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow. Acceptable methodologies for establishing the presence of an intermittent stream will be provided by the director of T&ES pursuant to subsection 13-104(C).

(Q) *Isolated wetlands of minimal ecological value.* Those wetlands, as defined in 9VAC25-210-10, that:

- (i) Do not have a surface water connection to other state waters;
- (ii) Are less than one-tenth of an acre in size;
- (iii) Are not located in a Federal Emergency Management Agency designated 100-year floodplain;
- (iv) Are not identified by the Virginia Natural Heritage Program as a rare or state significant natural community;
- (v) Are not forested; and
- (vi) Do not contain listed federal or state threatened or endangered species.

(R) *Land disturbance or land disturbing activity.* A man-made change to the land surface that potentially changes its runoff characteristics, including clearing, grading, filling, or excavation. (S)

*Layout.* A conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

(T) *Minor modification.* An amendment to an existing general permit before its expiration not requiring extensive review and evaluation including, but not limited to, changes in EPA promulgated test protocols, increasing monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor general permit modification or amendment does not substantially alter general permit conditions, substantially increase or decrease the amount of surface water impacts, increase the size of the operation, or reduce the capacity of the facility to protect human health or the environment.

(U) *Natural channel.* A nontidal waterway that is part of the natural topography and is generally characterized as being irregular in cross section with a meandering course.

(V) *Nonpoint source pollution.* Contamination from diffuse sources that is not regulated as point source pollution under section 402 of the Clean Water Act.

(W) *Nontidal wetlands.* Those wetlands, other than tidal wetlands, that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U.S. Environmental Protection Agency pursuant to section 404 of the Federal Clean Water Act, in 33 CFR 328.3b.

(X) *Operator.* The owner or operator of any facility or activity subject to regulation under this Article XIII. (Y) *Permittee.* The person to whom a state permit is issued, including any owner or operator whose construction site is covered under a state construction general permit.

(Z) *Person.* Any individual, corporation, partnership, association, municipality, commission, or political subdivision, of a state, governmental body, including federal, state, or local entity as

applicable, any interstate body or any other legal entity.

(AA) *Pre-development*. The land use that exists at the time that plans for the development are submitted to the city. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the land use at the time the first item is submitted shall establish pre-development conditions.

(BB) *Post-development*. Conditions that reasonably may be expected or anticipated to exist after completion of the development activity on a specific site or tract of land.

(CC) *Public road*. For the purpose of this Article XIII, public road means a publicly owned road designed and constructed in accordance with water quality protection criteria at least as stringent as requirements applicable to the Virginia Department of Transportation, including regulations promulgated pursuant to (i) the Erosion and Sediment Control Law (section 64.1-44.15:51 et seq. of the Code of Virginia) and (ii) the Virginia Stormwater Management Act (section 64.1-44.15:24 et seq. of the Code of Virginia). This definition includes those roads where the Virginia Department of Transportation exercises direct supervision over the design or construction activities, or both, and cases where roads are constructed or maintained, or both, by the City of Alexandria.

(DD) *Redevelopment*. The process of developing land that is or has been previously developed.

(EE) *Regulations*. The Virginia Stormwater Management Program (VSMP) Permit Regulations, 9VAC-25-870, as amended.

(FF) *Restored stormwater conveyance system*. A stormwater conveyance system that has been designed and constructed using natural channel design concepts. Restored stormwater conveyance systems include the main channel and the flood-prone area adjacent to the main channel (GG) *Resource Management Area (RMA)*. A Chesapeake Bay Preservation Area overlay designation as further defined in section 13-105(C).

(HH) *Resource Protection Area (RPA)*. A Chesapeake Bay Preservation Area overlay designation as further defined in section 13-105(B).

(II) *Shoreline*. Land contiguous to a body of water.

(JJ) *Site*. The land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity. Areas channelward of mean low water in tidal Virginia shall not be considered part of a site. The following shall be used for determining water quality and water quantity requirements in sections 13-109(E) & (F): For projects disturbing <50% of the tax parcel, (or if multiple parcels are involved, the land subject to the application), the disturbed area shall constitute the site; for projects disturbing ≥ 50% of the tax parcel (or if multiple parcels are involved, the land subject to the application), the entire tax parcel shall constitute the site.

(KK) *State*. The Commonwealth of Virginia.

(LL) *State permit*. An approval to conduct a land-disturbing activity issued by the Virginia State Water Control Board in the form of a state stormwater individual permit or coverage issued under a state general permit or an approval issued by the Virginia State Water Control Board for stormwater discharges from an MS4. Under these state permits, the state imposes and enforces requirements pursuant to the federal Clean Water Act, the Virginia Stormwater Management Act, and their

attendant regulations.

(MM) *State Water Control Law*. Chapter 3.1 (62.1-44.2 et seq) of Title 62.1 of the Code of Virginia.

(NNII) *State waters*. All waters on the surface or in the ground, wholly or partially within or bordering the commonwealth or within its jurisdiction, including wetlands.

(OO) *Stormwater*. Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

(PP) *Stormwater management facility*. A device that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow.

(QQ) *Stormwater management plan*. A document or documents containing material describing methods for complying with the requirements of section 13-114 of this article.

(RR) *Stormwater pollution prevention plan (SWPPP)*. A document that is prepared in accordance with section 13-113 of this article and good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and otherwise meet the requirements of this article. In addition the document shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of, an approved erosion and sediment control plan, and a pollution prevention plan.

(SS) *Subdivision*. Means the same as defined in section 2-197.2 of the Alexandria Zoning Ordinance. (TT) *Substantial alteration*. Expansion or modification of a building or development that would result in land disturbance exceeding an area of 2,500 square feet in the resource management area only.

(UU) *Tidal shore*. Land contiguous to a tidal body of water between the mean low water level and the mean high water level.

(VV) *Tidal wetlands*. Vegetated and nonvegetated wetlands as defined in section 28.2-1300 of the Code of Virginia.

(WW) *Top of Bank*. To the extent applicable, top of bank shall be determined on prevailing professional standards and the best professional judgment of the director.

(XX) *Total maximum daily load (TMDL)*. The sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading, and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs. (YY) *Use*. Any activity on the land other than development, including, but not limited to agriculture, horticulture, and silviculture.

(ZZ) *Virginia Stormwater Management Act*. Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

(AAA) *Virginia Stormwater BMP Clearinghouse [website](#)*. A website that contains detailed

design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and regulations.

(BBB) *Virginia Stormwater Management Program (VSMP)*. A program approved by the Virginia State Water Control Board that has been established by a locality to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permits, requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection and enforcement, where authorized in this article, and evaluation consistent with the requirements of this article and associated regulations.

(CCC) *VSMP authority*. An authority approved by the Virginia State Water Control Board to operate a VSMP. For the purposes of this article, the city is the VSMP authority.

(DDD) *Water body with perennial flow*. A body of water that flows in a natural or engineered channel year-round during a year of normal precipitation. This includes, but is not limited to streams, estuaries, and tidal embayments and may include drainage ditches or channels constructed in wetlands or from former natural drainage ways that convey perennial flow. Lakes and ponds, through which a perennial stream flows, are a part of the perennial stream. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow. The width of the perennial stream extends from top-of-bank to top-of-bank of the channel or to the limits of the normal water level for a pond or lake when there is no definable top-of-bank. Acceptable methodologies for establishing the presence of a water body with perennial flow will be provided by the director of T&ES pursuant to subsection 13-104(C).

(EEE) *Water-dependent facility*. A development of land that cannot exist outside of the resource protection area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include, but are not limited to:

- (i) Ports;
- (ii) The intake and outfall structures of power plants, water treatment plants, sewage treatment plants, and storm sewers;
- (iii) Marinas and other boat docking facilities;
- (iv) Beaches and other public water-oriented recreation areas; and
- (v) Fisheries or other marine resources facilities.

(FFF) *Watershed*. The total drainage area contributing runoff to a single point.

(GGG) *Wetlands*. Tidal and nontidal wetlands.

#### **13-104 - Administration.**

(A) *Responsibility for administration*. The director of T&ES, or his/her designee, is charged with responsibility for the administration of this Article XIII.

(B) *Duties and authority*. In the administration of this Article XIII the duties and authority of the director of T&ES shall include, without limitation:

- (1) Receiving applications for plan of development approval;
- (2) Reviewing applications to determine if they contain all information required and necessary for a determination of their merit;
- (3) Reviewing applications to determine their compliance with the provisions and intent of this Article XIII and their merit;
- (4) Docketing items for hearing before the planning commission and conferring with the city manager to schedule public hearings before the city council as necessary on applications;
- (5) Preparing a staff report for each application;
- (6) Interpreting the provisions of this Article XIII to ensure that its intent is carried out.

(C) *Rules, regulations, and procedures.* The director of T&ES shall promulgate rules, regulations, and procedures for the administration and enforcement of this Article XIII and shall promulgate rules, regulations, and procedures for the processing of applications that ensure full review, comment, and recommendations on each application by the department of transportation and environmental services. The city manager shall promulgate rules and procedures for review by other departments of applications, where such review is determined to be necessary or desirable and such procedures may include the establishment of a development review committee composed of departments of the city whose expertise is necessary or desirable in the review of applications. All such rules, regulations, and procedures shall be transmitted to the city council at the time of issuance.

(D) *Establishment of fees.* The director of T&ES shall by general rule approved by city council establish a schedule of fees required for each application under this Article XIII to be paid at the time an application is submitted. The schedule of fees shall include those authorized by 9VAC25-870-700 et seq. The schedule of fees is set per approved council docket.

(E) *Responsibility for enforcement.* The director of T&ES shall have the authority and the responsibility of section 11-200 and section 13-126 to ensure that all buildings and structures and the use of all land complies with the provisions of this Article XIII.

(F) The director of T&ES shall review, approve, disapprove, or approve with modifications or conditions or both the following elements of the plan of development:

- (1) The environmental site assessment, required pursuant to section 13-112
- (2) The stormwater management plan, required pursuant to section 13-114 and approved in accordance with section 13-115
- (3) The erosion and sediment control plan required pursuant to section 5-4-1
- (4) The water quality impact assessment, if required, pursuant to section 13-117
- (5) Compliance of the plan of development with section 13-106 through section 13-110

(G) The director of T&ES shall have the authority and the responsibility to enforce the requirement that a permittee must develop, implement, and keep at the site for inspection a stormwater pollution prevention plan that meets the requirements set forth in section 13-113 and a pollution prevention

plan that meets the requirements set forth in section 13-116.

(G) Review and decision on applications for exceptions shall be as provided in section 13-119.

(H) Review and decision on applications for modifications to noncomplying land uses and structures shall be as provided in section 13-122.

(I) Review and decision on applications for exemptions shall be as provided in section 13-123.

(J) Review and decision on the remaining elements of the plan of development shall be as provided in the regulations of this ordinance and the City Code applicable to each such element.

#### **13-105 - Designation of Chesapeake Bay Preservation Area Overlay District.**

(A) All land within the corporate limits of the city is designated as a Chesapeake Bay Preservation Area (CBPA). The CBPA is divided into resource protection areas and resource management areas. The regulations set forth in this Article XIII shall apply as an overlay district, and shall supersede any zoning, land use, or land development regulation of the City Code that is inconsistent with the provisions of this Article XIII.

(B) Resource protection areas (RPAs) consist of sensitive land that has either an intrinsic water quality value due to the ecological and biological processes such land performs or that is sensitive to uses or activities such that the use results in significant degradation to the quality of state waters. In their natural condition, these lands provide for the removal, reduction, or assimilation of nonpoint source pollution entering the bay and its tributaries. An area of land that includes any one of the following land types shall be considered to be within the RPA:

(1) Tidal wetlands;

(2) Tidal shores;

(3) Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;

(4) A buffer area of 100 feet (measured from top of bank) located adjacent to and landward of the components listed in paragraphs (1) through (3) above and along both sides of any water body with perennial flow. The full buffer area shall be designated as the landward component of the RPA notwithstanding the presence of permitted uses, encroachments, and vegetation clearing in compliance with this Article XIII.

(C) Resource management areas (RMAs) include land that, if improperly used or developed, has a potential for causing significant water quality degradation or for diminishing the functional value of the RPA. Therefore, all lands in the city, not included in the RPA, shall constitute the RMA since all such land drains through natural or manmade conveyances to the Potomac River and Chesapeake Bay.

#### **13-106 - Establishment of CBPA boundaries.**

(A) Chesapeake Bay Preservation Area boundaries are established by text, as provided in section 13-105. The city shall publish and update in a manner established by the director of T&ES pursuant to section 13-104(C) a general map depicting the location of identified CBPA features. However, in all cases it is the burden of the applicant to identify CBPA features and to delineate the appropriate

RPA boundaries in accordance with the development review process required pursuant to section 13-111, or if no development review process is required, then through the environmental site assessment pursuant to section 13-112

(B) Any property owner wishing to change the depiction of an RPA feature on the general map may conduct an environmental site assessment in section 13-112 and submit it to the director of T&ES. The director of T&ES may accept, modify, or reject the RPA delineation based on the evidence presented by the property owner and in consideration of all other available information.

(C) In the event that a site-specific RPA boundary delineation is contested by an applicant or property owner, the applicant or property owner may request a meeting with the director of T&ES to review the decision. Requests for the meeting shall be made no more than 30 calendar days after notification of a modification or rejection of a proposed RPA delineation. The director of T&ES will preside over the meeting of the involved parties and reconsider the decision. The meeting participants will be notified by the director of T&ES within 30 calendar days after the meeting of the result of the reconsideration.

### **13-107 - Development, redevelopment, and uses permitted in RPAs.**

The following criteria shall apply in RPAs unless the development, redevelopment, use, or land disturbing activity is exempted under section 13-123 or granted an exception pursuant to section 13-119. All development, redevelopment, and uses within the RPA must comply with the performance criteria provided in section 13-109.

(A) The following are permitted within the RPA provided they do not require development, redevelopment, structures, grading, fill, draining, or dredging:

- (1) Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife;
- (2) Passive recreational activities, including but not limited to fishing, bird watching, hiking, boating, horseback riding, swimming, and canoeing; and
- (3) Educational activities and scientific research.

(B) The following are permitted within the RPA if approved by the director of T&ES. A water quality impact assessment may be required by the director of T&ES in accordance with section 13-117 if the project is located within an environmentally sensitive area, or is of sufficient scale to affect water quality.

- (1) Repair and maintenance of existing piers, walkways, observation decks, wildlife management shelters, boathouses, and other similar water-related structures provided that there is no increase in structure footprint and that any required excavating and filling results in a land disturbing activity of 2,500 square feet or less;
- (2) Boardwalks, trails, and pathways;
- (3) Historic preservation and archeological activities; and
- (4) Repair and maintenance of existing flood control and stormwater management facilities.

(C) The following, if permitted in the underlying zone, are allowed within the RPA if approved by the director of T&ES and provided that a water quality impact assessment is performed and

accepted by the director of T&ES as complete in accordance with section 13-117.

- (1) A new or expanded water-dependent facility may be allowed provided that the following criteria are met:
    - (a) It does not conflict with the city master plan;
    - (b) Any non-water-dependent component is located outside of the RPA; and
    - (c) Access to the water-dependent facility is provided with the minimum disturbance necessary, and where practical, a single point of access is provided.
  - (2) Redevelopment may be allowed provided that the following criteria are met:
    - (a) There is no increase in impervious surface cover;
    - (b) There is no further encroachment within the RPA; and,
    - (c) The proposed redevelopment is consistent with the city master plan.
  - (3) Public flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed, may be allowed provided that:
    - (a) The director of T&ES has conclusively established that the location of the facility within the RPA is the optimum location;
    - (b) The size of the facility is the minimum necessary for flood control or stormwater quality treatment, or both;
    - (c) All applicable permits for construction in state or federal waters must be obtained from the appropriate state and federal agencies, such as the Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission; and
    - (d) The facility is consistent with a city stormwater management program approved by the Virginia State Water Control Board.
  - (4) Stream restoration projects and shoreline erosion control and stabilization projects, including the removal of trees and woody vegetation, employment of necessary restoration, control, and stabilization techniques, and establishment of appropriate vegetation, may be allowed in accordance with the best available technical advice and applicable permit conditions or requirements if approved by the city arborist.
- (D) In order to maintain the functional value of the RPA buffer area, existing vegetation may be removed if approved by the director of T&ES and only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices to prevent upland erosion and concentrated flows of stormwater, as follows:
- (1) Trees may be pruned or removed as necessary to provide for sight lines and vistas, provided that where removed, they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from

runoff. Replacement vegetation shall require the approval of the director of T&ES, in consultation with the department of recreation, parks, and cultural activities and the department of planning and zoning.

(2) Any path shall be constructed and surfaced so as to effectively control erosion.

(3) Dead, diseased, or dying trees or shrubbery and noxious weeds (such as Johnson grass, kudzu, and multiflora rose) may be removed and thinning of trees may be conducted. The director of T&ES may approve a long term management plan for a specific RPA that complies with professionally recognized management practices.

(E) The following encroachments, if permitted in the underlying zone, are allowed to the RPA buffer area if approved by the director of T&ES and provided that a water quality impact assessment is performed and accepted by the director of T&ES as complete in accordance with section 13-117.

(1) When the application of the buffer area would result in the loss of a buildable area on a lot or parcel recorded prior to October 1, 1989, encroachments into the buffer area may be approved by the director of T&ES in accordance with the following criteria:

(a) Encroachments into the buffer area shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;

(b) Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is equal to the area of encroachment into the buffer area shall be established elsewhere on the lot; and

(c) The encroachment may not extend into the seaward 50 feet of the buffer area.

(2) When the application of the buffer area would result in the loss of buildable area on a lot or parcel recorded between October 1, 1989 and March 1, 2002, encroachments into the buffer area may be approved by the director of T&ES in accordance with the following criteria:

(a) The lot or parcel was created as a result of a legal process conducted in conformity with the city's subdivision regulations;

(b) Any conditions or mitigation measures imposed through previously approved exceptions must be met;

(c) If a stormwater BMP was previously required, the BMP shall be evaluated to determine if it continues to function effectively, and, if necessary, the BMP shall be reestablished or repaired and maintained as required; and

(d) The criteria in (1) above of this section shall be met.

### **13-108 - Development and uses permitted in RMAs.**

Development, redevelopment, and uses authorized by the underlying zone are permitted in the RMA provided such activity is carried out in accordance with all applicable criteria in this Article XIII. The director of T&ES may, due to the unique characteristics of a site or the intensity of the proposed development, redevelopment, or use require a water quality impact assessment as provided in subsections 13-117(C) and (D).

**13-109 - General performance requirements for CBPAs.**

The director of T&ES shall approve development, redevelopment, uses, or land disturbing activities in the CBPA only if it is found that the activity is in compliance with this Article XIII and that the applicant has demonstrated, by a preponderance of the evidence, that the proposed development, redevelopment, use, or land disturbing activity meets or exceeds the following standards.

- (A) No more land shall be disturbed than is necessary to provide for the proposed use, development, or redevelopment.
- (B) Indigenous vegetation shall be preserved to the maximum extent practicable consistent with the use, development, or redevelopment proposed.
- (C) Development or redevelopment shall minimize impervious cover consistent with the proposed use or development.
- (D) The proposed development or redevelopment shall comply with section 5-4-1 et seq. of the City Code (erosion and sediment control).
- (E) All development, redevelopment, and uses disturbing greater than 2,500 square feet shall meet the following storm water quality management performance requirements. For purposes of this section, the following shall be used to define the site area for determining water quality requirements: for projects disturbing less than 50% of the tax parcel (or if multiple parcels are involved, the land subject to the application), the disturbed area shall be used as the site area; for projects disturbing greater than or equal to 50% of the tax parcel (or if multiple parcels are involved, the land subject to the application), the entire tax parcel shall be used as the site area.
  - (1) The entire water quality volume from the site shall be treated. When the development, redevelopment, or use constitutes disturbing only a small portion of a tax map parcel greater than 5 acres in size, the director of T&ES may establish criteria for allowing the parcel to be divided into sub-basins.
  - (2) Single-family residences separately built and disturbing less than one acre and not part of a larger common plan of development or sale, including additions or modifications to existing single-family detached residential structures are exempt from (3) and (4) below. The Alexandria water quality volume default requirement in section (5) still applies.
  - (3) New development. The total phosphorus load of new development projects shall not exceed 0.41 pounds per acre per year, as calculated pursuant to this section.
  - (4) Development of prior developed lands:
    - (a) For land-disturbing activities disturbing greater than or equal to one acre that results in no net increase in impervious cover from the pre-development condition, the total phosphorus load shall be reduced at least 20% below the pre-development total phosphorus load.
    - (b) For regulated land-disturbing activities disturbing less than one acre that results in no net increase in impervious cover from the pre-development condition, the total phosphorus load shall be reduced at least 10% below the predevelopment total phosphorus load.

- (c) For land-disturbing activities that result in a net increase in impervious cover over the pre-development conditions, the design criteria for new development shall be applied to the increased impervious area. Depending on the area of disturbance, the criteria of subdivisions (a) or (b) above shall be applied to the remainder of the site.
  - (d) In lieu of subdivision (c), the total phosphorus load of a linear development project as defined in 9VAC25-870-10 occurring on prior developed lands shall be reduced 20% below the predevelopment total phosphorus load.
  - (e) The total phosphorus load shall not be required to be reduced below the applicable standard for new development unless standards applied by other parts of this article require a more stringent standard.
- (5) For new development and development on prior developed lands in (3) and (4) above, the entire Alexandria water quality volume default from the site shall be treated, or the requirements must be met consistent with section 13-110.
- (6) Compliance with sections (3) and (4) above shall be determined using the Runoff Reduction Method and through the use of stormwater BMPs established in 9VAC25-870-65 or found at the Virginia BMP Clearinghouse website, except as may be limited in accordance with policies established by the director of T&ES in accordance with 13-104(C).
- (7) Compliance with sections (3) and (4) may be achieved by the applicant in accordance with off-site compliance options in 9VAC25-870-69 under the following circumstances:
- (a) Less than five acres of land will be disturbed;
  - (b) The post-construction phosphorus control requirement is less than 10 pounds per year; or,
  - (c) At least 75% of the required phosphorus nutrient reductions are achieved on-site. If at least 75% of the required phosphorus nutrient reductions cannot be met on-site, and the operator can demonstrate to the satisfaction of the director of T&ES that (i) alternative site designs have been considered that may accommodate on-site best management practices, (ii) on-site best management practices have been considered in alternative site designs to the maximum extent practicable, (iii) appropriate on-site best management practices will be implemented, and (iv) full compliance with post-development nonpoint nutrient runoff compliance requirements cannot practicably be met on-site, then the required phosphorus nutrient reductions may be achieved, in whole or in part, through the use of off-site compliance options.
- (8) When the requirements of sections (3) and (4) have otherwise been met, the requirement to treat the entire Alexandria water quality volume default in section (5) may be achieved in accordance with alternative stormwater management equivalency options presented in section 13-110.
- (9) Notwithstanding those exemptions granted under section 13-123, all such land-disturbing activities shall be subject to the design storm and hydrologic methods set out in 9VAC25-870-72, linear development controls in 9VAC25-870-76, and criteria associated with stormwater impoundment structures in 9VAC25-870-85.

(10) Notwithstanding the above requirements, any site with (a) an intermittent stream contained within an existing natural channel, or (b) a non-tidal wetland that does not meet the criteria for designation as a Resource Protection Area in section 13-105(B), must meet the following additional water quality performance criteria:

- (a) Measures must be taken to protect these features from direct stormwater runoff from impervious surfaces and to preserve their water quality functions.
- (b) A 50-foot wide vegetated area preserved where present, or established where not present, on the outward edge of these features shall be considered a sufficient BMP to meet this standard if the vegetated area is designed to prevent erosion and scouring.
- (c) The BMP requirement in (b) above may alternatively be met through the use of a smaller vegetated area in combination with equivalent on-site stormwater treatment and/or equivalent off-site options presented in section 13-110 if approved by the director of T&ES.
- (d) Development, redevelopment, uses, and land disturbing activities allowed in the vegetated area shall be the same as those allowed in RPAs as described in section 13-107. Delineation of the vegetated area shall be accomplished in the manner prescribed in section 13-106
- (e) The director of T&ES may waive the requirements of (b) above if the non-tidal wetland is demonstrated to the director of T&ES's satisfaction that it qualifies as an isolated wetland of minimal ecological value defined in section 13-103(K).

(F) All development and redevelopment shall meet the following channel protection and flood protection requirements. Compliance with this section satisfies the stormwater management requirements of 5-4-7(c)(4) of the City Code (erosion and sediment control):

(1) Channel protection. Concentrated stormwater flow shall be released into a stormwater conveyance system and shall meet the criteria of this section, where applicable, from the point of discharge to a point within the limits of analysis in subsection (d).

(a) Manmade stormwater conveyance systems. When stormwater from a development is discharged to a manmade stormwater conveyance system, following the land disturbing activity, either:

(i) The manmade stormwater conveyance shall convey the post-development peak flow rate from the two-year 24-hour storm event without causing erosion of the system. Detention of stormwater or downstream improvements may be incorporated into the land-disturbing activity to meet this criterion, at the discretion of the director; or

(ii) The peak discharge requirements for concentrated stormwater flow to natural stormwater conveyance systems in subsection (c) shall be met.

(b) Restored stormwater conveyance systems. When stormwater from a development is discharged to a restored stormwater conveyance system that has been restored using natural design concepts, following the land disturbing activity, either:

(i) The development shall be consistent, in combination with other stormwater

runoff, with the design parameters of the restored stormwater conveyance system that is functioning in accordance with the design objectives; or,

(ii) The peak discharge requirements for concentrated stormwater flow to natural stormwater conveyance systems in subsection (c) shall be met.

(c) Natural stormwater conveyance systems. When stormwater from a development is discharged to a natural stormwater conveyance system the maximum peak flow rate from the one-year 24-hour storm following the land-disturbing activity shall be calculated either:

(i) In accordance with the following methodology:

$$Q_{\text{Developed}} \leq \text{I.F.} * (Q_{\text{Pre-developed}} * RV_{\text{Pre-developed}}) / RV_{\text{Developed}}$$

Under no condition shall  $Q_{\text{Developed}}$  be greater than  $Q_{\text{Pre-developed}}$  nor shall  $Q_{\text{Developed}}$  be required to be less than that calculated in the equation  $(Q_{\text{Forest}} * RV_{\text{Forest}}) / RV_{\text{Developed}}$ ; where

I.F (Improvement Factor) equals 0.8 for sites > 1 acre or 0.9 for sites ≤ 1 acre.

$Q_{\text{Developed}}$  = The allowable peak flow rate of runoff from the developed site.

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

$Q_{\text{Pre-developed}}$  = 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 pre-developed condition.

$Q_{\text{Forest}}$  = The peak flow rate of runoff from the site in a forested condition.

$RV_{\text{Forest}}$  = The volume of runoff from the site in a forested condition.

(d) Limits of analysis. Unless subsection (c) is utilized to show compliance with the channel protection criteria, stormwater conveyance systems shall be analyzed for compliance with channel protection criteria to a point where either:

(i) Based on land area, the site's contributing drainage area is less than or equal to 1.0% of the total watershed area; or,

(ii) Based on peak flow rate, the site's peak flow rate from the one-year 24-hour storm is less than or equal to 1.0% of the existing peak flow rate for the one-year 24-hour storm event prior to implementation of any stormwater quantity control measures.

(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 the use of acceptable hydrologic and hydraulic methodologies:

(a) Concentrated stormwater flow to stormwater conveyance systems that currently do not experience localized flooding during the 10-year 24-hour storm event:

- (i) The point of discharge releases stormwater into a stormwater conveyance system that, following the land disturbing activity, confines the post-development peak flow rate from the 10-year 24-hour storm event within the stormwater conveyance system, and. .
  - (ii) Unless waived under (iv), the post-development peak flow rate for the 10-year 24-hour storm event shall be less than the predevelopment peak flow rate from the 10-year 24-hour storm event.
  - (iii) Detention of stormwater or downstream improvements may be incorporated into the approved land-disturbing activity to meet (i) and (ii), at the discretion of the director of T&ES.
  - (iv) A waiver of the detention requirements and/or the downstream stormwater limits of analysis in section 2 (c) may be granted by the director based on factors including but not limited to the project's location in the watershed.
- (b) Concentrated stormwater flow to stormwater conveyance systems that currently experience localized flooding during the 10-year 24-hour storm event: The point of discharge either:
- (i) Confines the post-development peak flow rate from the 10-year 24-hour storm event within the stormwater conveyance system to avoid the localized flooding. Additional detention of stormwater or downstream improvements may be incorporated into the approved land-disturbing activity to meet this criterion, at the discretion of the director; or,
  - (ii) Releases a post-development peak flow rate for the 10-year 24-hour storm event that is less than the pre-development peak flow rate from the 10-year 24-hour storm event.
  - (iii) A waiver of the detention requirement may be granted by the director of T&ES based on factors including but not limited to the amount of stormwater runoff generated, the severity of flooding issues in the watershed and/or the lack of adequacy of the existing conveyance system.
- (c) Limits of analysis. Stormwater conveyance systems shall be analyzed for compliance with flood protection criteria to a point where:
- (i) The site's contributing drainage area is less than or equal to 1.0% of the total watershed area draining to a point of analysis in the downstream stormwater conveyance system;
  - (ii) Based on peak flow rate, the site's peak flow rate from the 10-year 24-hour storm even is less than or equal to 1.0% to the existing peak flow rate from the 10-year 24-hourstorm event prior to the implementation of any stormwater quantity control measures; or,
  - (iii) The stormwater conveyance system enters a mapped floodplain or other

flood-prone area adopted in accordance with section 6-300 et seq of the City Code.

(3) 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.

(4) For the purposes of computing pre-development runoff, all pervious lands on the site shall be assumed to be in good hydrologic condition in accordance with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) standards, regardless of conditions existing at the time of computation. Pre-development runoff calculations utilizing other hydrologic conditions may be utilized provided that it is demonstrated to and approved by the director of T&ES that actual site conditions warrant such considerations.

(5) Pre-development and post-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 and by the Virginia Stormwater BMP Clearinghouse shall be considered appropriate practices. (6) The director of T&ES may waive these requirements provided in section (2) in cases where stormwater detention would conflict with the city's flood management programs. The waiver may be granted based on factors including, but not limited to, the project's location in the watershed and/or off-site improvement to upgrade the downstream conveyance systems.

(7) Post-development concentrated surface waters shall not be discharged on adjoining property, unless an easement expressly authorizing such discharge has been granted by the owner of the affected land.

(G) It shall be the responsibility of the owner of any stormwater quality or quantity management facility established to meet the requirements of (E) and (F) above to provide adequate maintenance for proper functioning of the system. The following requirements apply to all existing and future facilities constructed in the city:

(1) The owner shall enter into a stormwater BMP Maintenance Agreement (agreement) with the city that provides all necessary provisions to ensure compliance with this article, to include access for inspections. The agreement shall require the provision of long-term maintenance of stormwater BMPs and provide for inspections. Facility-specific inspection frequency and maintenance requirements shall be set by city policy and procedures. The BMP Maintenance Agreement shall be set forth in an instrument recorded in the city land records. The stormwater BMP maintenance agreement form will be provided by the director of T&ES in accordance with section 13-104(C).

(2) The owner shall prepare and submit inspection and maintenance reports to the city in accordance with city policies and procedures for the specific facility. Inspection and maintenance reports shall be signed by the owner of the facility or an individual acting on the

owner's behalf, a registered professional, or a person who holds an appropriate certificate of competence from the board. Such certification shall state that the facility is being adequately maintained as designed.

(3) The owner shall provide the city with access to the facility to perform quality assurance inspections and follow up inspections to ensure adequate maintenance has been conducted a minimum of once every five years, or on a more frequent basis at the discretion of the director. If inadequate maintenance is observed by the city, the owner will be notified and an adequate period specified for corrective action. If the corrective action is not performed within the specified time, the city may perform the necessary corrections and bill the property owner. In cases of repeated instances of failure to perform required maintenance, sanctions may be imposed as provided in section 13-126.

**13-110 - Alexandria Water Quality Improvement Fund and alternative stormwater management equivalency options.**

(A) The director of T&ES, in consultation with the director of planning and zoning and the director of recreation, parks, and cultural activities, as appropriate, shall establish equivalent stormwater management options that may be used to meet the requirements of section 13-109(E)(6) and section 13-109(E)(7)(c). Options shall include the following:

(1) Specific onsite and offsite improvements that have been determined by the director of T&ES to achieve a pollutant removal equal to or greater than what would have been achieved had a traditional BMP been required; and

(2) Monetary contributions to the Alexandria Water Quality Improvement Fund provided for in (C) below.

(B) Improvements may include, but not necessarily be limited to, stream restoration, stream daylighting, removal of existing RPA encroachments, RPA enhancement, street cleaning, combined sewer system separation, and permanent preservation of open space areas beyond the city's baseline open space preservation requirements.

(C) Monetary contributions to the Alexandria Water Quality Improvement Fund shall be calculated by the director of T&ES based on estimates of the cost of actually installing and maintaining onsite BMPs through their life cycle. These costs will be updated on a periodic basis by the director of T&ES as required.

(D) In determining whether to allow equivalent stormwater options, as well as the appropriate combination of onsite and offsite controls, the director of T&ES shall take into consideration the following:

(1) Whether there is an opportunity to control impervious surface cover that comes into routine contact with vehicles, including but not limited to parking areas, streets and roadways except for public roads exempt under section 13-109; loading docks; equipment, material, and waste storage areas; and vehicle fueling, washing, storage, maintenance, and repair areas.

(2) Whether other environmental and public benefits such as site design, open space, tree preservation, and landscaping can be achieved.

(3) Whether onsite stormwater detention would conflict with the city's flood management

programs.

(4) Whether site-specific constraints would make onsite treatment difficult or impractical, especially when the site consists of a single-family residence separately built and not part of a subdivision.

(5) Whether there are opportunities readily available for offsite improvements within the general vicinity of the site that will provide greater water quality benefits than onsite improvements;

(6) Whether there are opportunities to control specific pollutants of concern identified within the watershed or subwatershed, including but not limited to those identified by the department of environmental quality in its most recent 303(d) Total Maximum Daily Load (TMDL) Priority List;

(7) Whether there are opportunities to implement the Water Quality Management Supplement to the city master plan and the city's Virginia Stormwater Management Permit (VSMP) for its municipally owned separate storm sewer system discharges as issued by the Department of Environmental Quality; and

(8) Whether the cost of implementing available offsite improvements is reasonably equivalent to that of a monetary contribution.

(9) Single family residential development projects that are exempt from the water quality requirements of section 13-123(A) are considered eligible to contribute to the Alexandria Water Quality Improvement Fund in section 13-110(A)(2) to meet the Alexandria water quality volume default requirement in section 13-107(E)(3) with no further consideration of items (1) through (8) above.

(E) Final approval of equivalency options used for a particular site shall be made at the sole discretion of the director of T&ES.

(F) The city hereby establishes a dedicated fund known as the Alexandria Water Quality Improvement Fund to be used in conjunction with this Article XIII, the Water Quality Management Supplement to the city Master Plan, and the city's Municipal Separate Storm Sewer System (MS4) General Permit issued by the Virginia Department of Environmental Quality. The purpose of the fund is to reduce nonpoint source pollution and improve stream quality and habitat through appropriate activities including, but not limited to: new BMPs, retrofit of existing BMPs, riparian enhancements, stream bank stabilization and/or restoration, public education and outreach, demonstration projects, water quality monitoring and analysis, and other activities to meet TMDL requirements.

#### **13-111 - Development review process.**

(A) Any development, redevelopment, or use exceeding 2,500 square feet of land disturbance within the CBPA shall be subject to the development review process outlined in (C) below prior to any clearing of the site, or the issuance of any building, land use, or land development permit. However, any land-disturbing activity less than one acre within the CBPA shall not be required to complete a registration statement for coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities, but shall be subject to all aspects of the development review process, to include the water quality and quantity criteria in 13-109 (E) & (F).

(B) Notwithstanding (A) above, all development, redevelopment, or use in the RPA, or in the vegetated area established under section 13-109(E)(10), regardless of the amount of land disturbance, shall be subject to the review criteria established in section 13-107 prior to any clearing of the site or the issuance of any building, land use, or land development permit.

(C) The development review process application shall consist of the plans and studies identified below, such application forms as the director of T&ES shall require and the appropriate fees, which together shall constitute the plan of development. The plans and studies identified in this section may be coordinated or combined with other required submission materials, as deemed appropriate by the director of T&ES. The plan of development shall contain the following elements:

- (1) A site plan in accordance with the provisions of section 11-400 of this ordinance or other applicable law and, if applicable, a subdivision plat in accordance with the provisions of chapter 5, title 7 of the City Code;
- (2) An environmental site assessment as detailed in section 13-112;
- (3) A landscape plan in accordance with the provisions of section 11-410(CC) of this ordinance certified by qualified design professionals practicing within their areas of competence;
- (4) A stormwater management plan as detailed in section 13-114 and approved in accordance with section 13-115; (5) An erosion and sediment control plan in accordance with the provisions of chapter 4, title 5 of the City Code;
- (6) Completion of the stormwater pollution prevention plan checklist referring to standard plan language included in the final plan; and,
- (7) For all land disturbance, development, or redevelopment within an RPA, or within an environmentally sensitive area as determined by the director of T&ES pursuant to section 13-117(C) or section 13-117(D), or for an exception under section 13-119, a water quality impact assessment as detailed in section 13-117.

(D) No development, redevelopment, uses, or land disturbing activities may commence until the director of T&ES has approved the final site plan and a state construction general permit has been issued.. The following shall be required for final site plan approval :

- (1) A General VPDES Permit for Discharges of Stormwater from Construction Activities application that includes a registration statement;
- (2) Approval by the director of T&ES of all requirements as outlined in section (C) above;
- (3) Payment of all applicable fees in accordance with section 113-104(D);
- (5) Demonstration to the satisfaction of the director of T&ES, through the review of the final site plan application and attendant materials and supporting documentation, that all land clearing, construction, disturbance, land development, and drainage will be done in accordance with this Article XIII.
- (6) Review of a signed standard maintenance and monitoring agreement for the long term

maintenance of stormwater BMPs, and proof of recordation per section 13-109 (G).

- (E) As a condition of final plan approval, any development, redevelopment, or land-disturbing activity of one acre or greater must develop prior to the land-disturbing activity, implement, and keep at the site for inspection a stormwater pollution prevention plan that meets the requirements set forth in section 13-113, which includes a pollution prevention plan that meets the requirements set forth in section 13-116.

**13-112 - Environmental site assessment.**

- (A) The environmental site assessment shall clearly delineate the individual components of the RPA as well as the total geographic extent of the RPA as defined in section 13-105(B) through a methodology approved by the director of T&ES under the authority of section 13-104(C).
- (B) The environmental site assessment shall also clearly describe, map, or explain the following:
  - (1) Intermittent streams contained within a natural channel through a methodology approved by the director of T&ES under the authority of section 13-104(C).
  - (2) Highly erodible and highly permeable soils if available from existing public documents or documents available to the applicant;
  - (3) Steep slopes greater than 15 percent in grade;
  - (4) Known areas of contamination;
  - (5) Springs, seeps, and related features; and
  - (6) A listing of all wetlands permits required by law (evidence that such permits have been obtained shall be presented to the director of T&ES before permits will be issued to allow commencement of grading or other on-site activity).
- (C) Wetlands delineations shall be performed consistent with current procedures promulgated by the U.S. Army Corps of Engineers and the Environmental Protection Agency.
- (D) Site-specific evaluations or delineations of RPA boundaries shall be certified by a professional engineer, land surveyor, landscape architect, soil scientist, or wetland delineator certified or licensed to practice in the Commonwealth of Virginia.
- (E) In the event that no part of the site plan area contains any elements described in (A) or (B) above, the applicant and the party responsible for the evaluation may, in lieu of providing an environmental site assessment plan, so certify the finding, in writing and under oath, to the director of T&ES. Any permit issued in reliance upon such a certification where said certification is factually inaccurate or incorrect shall be void ab initio. Such invalidity shall be in addition to any other penalties which may be imposed upon the makers of such certification.
- (F) The environmental site assessment shall be drawn at the same scale as the preliminary site plan or subdivision plat, and shall be certified as complete and accurate by a professional engineer or a certified land surveyor. This requirement may be waived by the director of T&ES when the proposed use or development would result in less than 5,000 square feet of disturbed area.

**13-113 - Stormwater pollution prevention plan.**

(A) The stormwater pollution prevention plan (SWPPP) shall include the content specified in 9VAC25-870-54, which includes but is not limited to, an approved erosion and sediment control plan, an approved stormwater management plan, a pollution prevention plan for regulated land disturbing activities, and a description of any additional control measures necessary to address a TMDL. The SWPPP must also comply with the requirements and general information set forth in 9VAC25-880-70 Section II of the General VPDES Permit for Discharges of Stormwater From Construction Activities (Construction General Permit).

(B) The SWPPP shall be amended by the operator whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters that is not addressed in the existing SWPPP.

(C) The SWPPP must be maintained by the operator at a central location onsite. If an onsite location is not available, notice of the SWPPP's location must be posted near the main entrance at the construction site. Operators shall make the SWPPP available for public review in accordance with Section II of the general permit, either electronically or in hard copy.

**13-114 - Stormwater management plan.**

(A) The stormwater management plan must apply the stormwater technical requirements of section 13-109 to the entire site. Individual lots in new residential, commercial, or industrial developments shall not be considered separate land-disturbing activities. The plan shall consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to surface runoff. The plan shall contain maps, charts, graphs, tables, photographs, narrative descriptions, explanations, calculations, and citations to supporting references as appropriate to communicate the information required by this Article XIII. At a minimum, the stormwater management plan must contain the following:

- (1) Information on the type and location of stormwater discharges; information on the features to which stormwater is being discharged including surface waters, and the pre-development and post-development drainage areas;
- (2) Contact information including the name, address, and telephone number of the owner and the tax reference and parcel number of the property or properties affected;
- (3) A narrative that includes a description of current site conditions and final site conditions;
- (4) A general description of the proposed stormwater management facilities and a maintenance agreement and inspection schedule in accordance with section 13-109(G) to ensure that the facilities will be operated and maintained after construction is complete;
- (5) Information on the proposed stormwater management facilities, including:
  - (a) The type of facilities;
  - (b) Location, including geographic coordinates;
  - (c) Acres treated; and,
  - (d) The surface waters into which the facility will discharge.

- (6) Hydrologic and hydraulic computations, including runoff characteristics.
- (7) Documentation and calculations verifying compliance with the water quality and water quantity requirements of section 13-109.
- (8) A map or maps of the site that depicts the topography of the site and includes:
  - (a) All contributing drainage areas;
  - (b) Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains;
  - (c) Soil types, relevant geological formations, forest cover, and other vegetative areas;
  - (d) Current land use including existing structures, roads, and locations of known utilities and easements;
  - (e) Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;
  - (f) The limits of clearing and grading, and the proposed drainage patterns on the site;
  - (g) Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and,
  - (h) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements.

(B) If an operator intends to meet the water quality requirements set forth in section 13-109(E) through the use of off-site credits in accordance with section 13-109(E)(7), then a letter of availability from the off-site provider must be included. Approved off-site options must achieve the necessary reductions prior to the commencement of the applicant's land-disturbing activity except as otherwise allowed by section 62.1-44.15:35 of the Code of Virginia.

(C) If the operator intends to utilize the alternative stormwater management equivalency options in section 13-110 to meet the Alexandria Water Quality Volume Default in section 13-109(E)(5) or the additional water quality performance criteria of section 13-109(E)(7), then the operator must submit a narrative and any required calculations.

(D) Site specific facilities for phased projects shall be designed for the ultimate development of the contributing project watershed based on zoning, comprehensive plans, local public facility master plans, or other similar planning documents.

(E) Elements of stormwater management plans that include activities regulated under Chapter 4 of Title 54.1 of the Code of Virginia be appropriately sealed and signed by professional registered in the Commonwealth of Virginia and performed in accordance with procedures, consistent with good engineering practice, established by the director of T&ES pursuant to section 13-104(C).

(F) All stormwater designs that require analysis of pressure hydraulic systems and/or inclusion and design of flow control structures must be sealed by a professional engineer registered in the Commonwealth of Virginia.

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(G) An as-built drawing for permanent stormwater management facilities shall be submitted to the director of T&ES in accordance with section 13-114. The as-built drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia certifying that the stormwater facilities have been constructed in accordance with the approved plan.

(H) The plan shall establish a long-term schedule for inspection and maintenance of stormwater management facilities that includes all maintenance requirements and persons responsible for performing maintenance. If the designated maintenance responsibility is with a party other than the City of Alexandria, then a maintenance agreement shall be executed between the responsible party and the city in accordance with section 13-109(G).

**13-115 - Stormwater management plan review.**

(A) The director of T&ES shall review stormwater management plans and shall approve or disapprove a stormwater management plan in accordance with the following:

(1) The director of T&ES shall determine the completeness of the plan in accordance with section 13-114 and shall notify the applicant, in writing, of such determination within 15 calendar days of receipt. If the plan is deemed incomplete, the above written notification shall contain the reasons the plan is deemed incomplete.

(2) The director of T&ES shall have an additional 60 calendar days from the date of the communication of completeness to review the plan, except that if a determination of completeness is not made within the time prescribed above, then the plan shall be deemed complete and the director of T&ES shall have 60 calendar days from the date of submission to review the plan.

(3) The director of T&ES shall review any plan that has been previously disapproved within 45 calendar days of the date of re-submission.

(4) During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the person responsible for the land-disturbing activity or the 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 article.

(B) Approved stormwater management plans may be modified as follows:

(1) Modifications to an approved stormwater management plan shall be allowed only after review and written approval by the director of T&ES. The director of T&ES shall have 60 calendar days to respond in writing either approving or disapproving such request.

(2) The director of T&ES may require that an approved stormwater management plan be amended, within a time prescribed by the director of T&ES, to address any deficiencies noted during inspection.

(C) The director of T&ES shall require the submission of an as-built drawing for permanent stormwater facilities. The director of T&ES may elect not to require as-built drawings for stormwater management facilities for which recorded maintenance agreements are not required.

**13-116 – Pollution prevention plan.**

(A) The pollution prevention plan is required by 9VAC25-870-56 and shall be developed, implemented, and updated as necessary, and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

(1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

(2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and

other materials present on the site to precipitation and to stormwater; and,

(3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

(B) The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

(1) Wastewater from washout of concrete, unless managed by an appropriate control;

(2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

(3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, and,

(4) Soaps or solvents used in vehicle and equipment washing.

(C) Discharges from dewatering activities, including discharges from dewatering of trenches or excavations, are prohibited unless managed by appropriate controls.

#### **13-117 - Water quality impact assessment.**

(A) The purpose of the water quality impact assessment is to:

(1) Identify the impacts of a proposed use, development, or redevelopment on water quality and lands within an RPA;

(2) Ensure that, where a use, development, or redevelopment does take place within an RPA, it will be located on those portions of the site and in a manner that will be least disruptive to the natural functions of the RPA;

(3) Identify the impacts of a proposed use, development, or redevelopment within an RMA where the director of T&ES has determined that the proximity to an RPA, the environmentally sensitive characteristics of the site, or the proposed scale and intensity has the potential to affect water quality;

(4) Specify mitigation that will address water quality protection under the foregoing circumstances or under an exception under section 13-116

(B) A water quality impact assessment is required for any proposed development or redevelopment in the RPA, except that at the discretion of the director of T&ES a water quality impact assessment may not be required if the activity is addressed under section 13-107(A), section 13-107(B), or section 13-107(D). There are two types of water quality impact assessments: water quality minor impact assessments and water quality major impact assessments.

(C) A water quality minor impact assessment is required for development or redevelopment within RPAs or under an exception which involves 5,000 or less square feet of land disturbance; or for any development or redevelopment within the RMA that involves 5,000 or less square feet of land disturbance adjacent to an RPA, if required by the director of T&ES due to the presence or proximity of wetlands, potential for harmful discharge of contaminants from the property, or slopes greater than 15 percent which are proposed to be disturbed. A minor assessment must demonstrate that the

undisturbed buffer area, enhanced vegetative plantings, and any required BMPs will result in the removal of no less than 75 percent of sediments and 40 percent of nutrients from post-development stormwater runoff and that will retard runoff, prevent erosion, and filter nonpoint source pollution the equivalent of the full undisturbed buffer area. Such an assessment shall include a site plan that shows the following:

- (1) Location and description of the existing characteristics and conditions of the components of the RPA as identified in section 13-105(B) and delineated in the environmental site assessment required by section 13-112
- (2) Location and nature of the proposed encroachment into the buffer area, including: type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drainfield sites;
- (3) Type and location of enhanced vegetation and/or proposed BMPs to mitigate the proposed encroachment;
- (4) Location of existing vegetation onsite, including the number and types of trees and other vegetation to be removed in the buffer to accommodate the encroachment or modification; and
- (5) Revegetation plan that supplements the existing buffer vegetation in a manner that provides for pollutant removal, erosion, and runoff control. The revegetation plan will incorporate native vegetation to the extent practicable.

(D) A water quality major impact assessment is required for development or redevelopment within RPAs or under an exception that involves more than 5,000 square feet of land disturbance; or for any development or redevelopment within the RMA which involves more than 5,000 square feet of land disturbance adjacent to an RPA, if required by the director of T&ES due to the presence or proximity of wetlands, potential for harmful discharge of contaminants from the property, or slopes greater than 15 percent which are proposed to be disturbed. The following elements shall be included in a water quality major impact assessment:

- (1) All of the information required in a water quality minor impact assessment as specified in (C) above;
- (2) A hydrogeological element that:
  - (a) Describes the existing topography, soils, hydrology, and geology of the site;
  - (b) Describes the impacts of the proposed development or redevelopment on topography, soils, hydrology, and geology on the site;
  - (c) Indicates the following:
    - (i) Disturbance or reduction of wetlands and justification for such action;
    - (ii) Disruption or reductions in the supply of water to wetlands, streams, lakes, rivers, or other water bodies;
    - (iii) Disruptions to existing hydrology, including wetland and stream circulation patterns;

- (iv) Source location and description of proposed fill material (may, at applicant's risk, be provided when the U.S. Army Corps of Engineers permit application is submitted);
  - (v) Location of dredge materials and location of dumping area for such materials (may, at applicant's risk, be provided when the U.S. Army Corps of Engineers permit application is submitted);
  - (vi) Locations of and impacts on adjacent shellfish beds, submerged aquatic vegetation, and fish spawning areas (may, at applicant's risk, be provided when the U.S. Army Corps of Engineers permit application is submitted);
  - (vii) The estimated pre- and post-development pollutant loads in runoff as delineated in the stormwater management plan required by section 13-113
  - (viii) Estimation of percent increase in impervious surface on the site and identification of the type(s) of surfacing materials to be used;
  - (ix) Percent of the site to be cleared for the project;
  - (x) Anticipated duration and phasing schedule of the construction period; and
  - (xi) Listing of all requisite permits from all applicable agencies necessary to develop the project.
- (d) Describes the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures include:
- (i) Proposed erosion and sediment control measures, which may include minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, schedule and personnel for site inspection;
  - (ii) Proposed stormwater management system;
  - (iii) Creation of wetlands to replace those lost; and
  - (iv) Minimizing cut and fill.
- (3) A supplement to the landscape plan that:
- (a) Identifies and delineates the location of all significant plant material, including all trees on site six inches or greater diameter breast height. Where there are groups of trees, stands shall be outlined.
  - (b) Describes the impacts the development or use will have on the existing vegetation. Information should include:
    - (i) General limits of clearing based on all anticipated improvements, including buildings, drives, and utilities;
    - (ii) Clear delineation of all trees which will be removed; and

(iii) Description of plant species to be disturbed or removed.

(c) Describes the potential measures for mitigation. Possible mitigation measures include:

(i) Replanting schedule for trees and other significant vegetation removed for construction, including a list of possible plants and trees to be used;

(ii) Demonstration that the proposed plan will preserve to the greatest extent possible any significant trees and vegetation on the site and will provide maximum erosion and overland flow benefits from such vegetation;

(iii) Demonstration that indigenous plants are to be used to the greatest extent possible; and

(iv) Identification of the natural processes and ecological relationships inherent at the site, and an assessment of the impact of the proposed use and development of the land, including mitigating measures proposed in the water quality impact assessment, on these processes and relationships.

(E) A water quality minor impact assessment shall be certified as complete and accurate by a professional engineer or a certified land surveyor. The additional elements required in a water quality major impact assessment shall be certified as complete and accurate by a professional engineer and by a qualified environmental scientist.

(F) For any water quality impact assessment to proceed, the director of T&ES must first approve it for completeness and compliance with this Article XIII. Upon receipt of any water quality major impact assessment application, the director of T&ES may determine if review by the department is warranted and may request the department to review the assessment and respond with written comments. Any comments by the department will be incorporated into the final review by the director of T&ES provided that such comments are provided by the department within 90 days of the request.

(1) For a water quality minor impact assessment, the director of T&ES shall base this finding on the following criteria:

(a) The necessity of the proposed encroachment and the ability to place improvements elsewhere on the site to avoid disturbance of the buffer area;

(b) Impervious surface is minimized;

(c) Proposed BMPs, where required achieve the requisite reductions in pollutant loadings;

(d) The development, as proposed, meets the purpose and intent of these regulations;

(e) The cumulative impact of the proposed development when considered in relation to other development within the RPA in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.

(2) For a water quality major impact assessment, the director of T&ES shall base this finding on the following criteria:

- (a) Within any RPA, the proposed development is water-dependent or constitutes redevelopment;
- (b) The disturbance of wetlands shall comply with state and federal regulations;
- (c) The development will not result in significant disruption of the hydrology of the site;
- (d) The development will not result in significant degradation of water quality that could adversely affect aquatic vegetation or life;
- (e) The development will not result in unnecessary destruction of plant material on site;
- (f) Proposed erosion and sediment control measures are adequate to achieve the required reductions in runoff, and prevent off-site transport of sediment during and after construction;
- (g) Proposed stormwater management measures are adequate to control the stormwater runoff to achieve the required standard for pollutant control; and
- (h) Proposed revegetation of disturbed areas will provide adequate erosion and sediment control benefits, as determined by the director of T&ES.

**13-118 - Final plans.**

(A) Final site plans and subdivision plats subject to this Article XIII for all lands within the CBPA shall include the following additional information:

- (1) A copy showing issuance of all wetlands permits required by law; and
- (2) A BMP inspection schedule and maintenance agreement between the city and applicant as deemed necessary and appropriate by the director of T&ES to ensure proper maintenance of best management practices in order to assure their continued performance.

(B) The following installation and bonding requirements shall be met.

- (1) Where buffer areas, landscaping, stormwater management facilities or other specifications of an approved plan are required, no certificate of occupancy shall be issued until the installation of required plant materials or facilities is completed, in accordance with the approved site plan.
- (2) When the occupancy of a structure is desired prior to the completion of the required landscaping, stormwater management facilities, or other specifications of an approved plan, a certificate of occupancy may be issued only if the applicant provides to the city a surety bond or equivalent satisfactory to the director of T&ES in amount equal to the remaining plant materials, related materials, and installation costs of the required landscaping or facilities and/or maintenance costs for any required stormwater management facilities during the construction period.
- (3) Unless otherwise approved by the director of T&ES for a phased project, all required landscaping shall be installed and approved by the first planting season following issuance of a certificate of occupancy or the surety bond may be forfeited to the city.

(4) Unless otherwise approved by the director of T&ES for a phased project, all required stormwater management facilities or other specifications shall be installed and approved within 18 months of project commencement. Should the applicant fail, after proper notice, to initiate, complete or maintain appropriate actions required by the approved plan, the surety bond may be forfeited to the city. The city may collect from the applicant the amount by which the reasonable cost of required actions exceeds the amount of surety held.

(5) After all required actions of the approved site plan have been completed, the applicant must submit a written request for a final inspection. If the requirements of the approved plan have been completed to the satisfaction of the director of T&ES, such unexpended or unobligated portion of the surety bond held shall be refunded to the applicant or terminated within 60 days following the receipt of the applicant's request for final inspection. The director of T&ES may require a certificate of substantial completion from a professional engineer or licensed surveyor before making a final inspection.

### **13-119 - Exceptions.**

(A) Unless otherwise provided in this Article XIII, a request for an exception to the requirements of this Article XIII shall be made pursuant to this section in writing to the director of T&ES. The request shall identify the impacts of the proposed exception on water quality and on lands within the RMA and RPA through the performance of a water quality impact assessment that complies with the provisions of section 13-117 to the extent applicable.

(B) For exceptions to the provisions of sections 13-109 and 13-124 other than those detailed in section 13-107, the director of T&ES shall review the request for an exception and the water quality impact assessment and may grant the exception with such conditions and safeguards as deemed necessary to further the purpose and intent of this Article XIII if the director of T&ES finds that the applicant has demonstrated by a preponderance of the evidence that:

- (1) Granting the exception will not confer upon the applicant any special privileges that are denied to other property owners in the CBPA overlay district;
- (2) The exception is not based upon conditions or circumstances that are self-created or self-imposed, nor does the exception arise from conditions or circumstances either permitted or noncomplying that are related to adjacent parcels;
- (3) The exception is the minimum necessary to afford relief;
- (4) The exception will be consistent with the purpose and intent of the overlay district, and not injurious to water quality, the neighborhood or otherwise detrimental to the public welfare;
- (5) Reasonable and appropriate conditions are imposed, as warranted, to prevent the allowed activity from causing degradation of water quality.

(C) Economic hardship alone is not sufficient reason to grant an exception from the requirements of this Article XIII.

(D) Under no circumstances shall the city allow an exception to the requirement that a qualified land-disturbing activity obtain the required construction general permit or other state permits.

(E) Under no circumstances shall the city allow the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse website, or as applicable for projects subject to 9VAC25-870 Part

II. C. Notwithstanding, this shall not preclude the director of T&ES from placing reasonable limitations on a BMP on the Virginia Stormwater BMP Clearinghouse website.

(F) Exceptions to the requirements for phosphorus reductions required under section 13-109(E)(3) and (4) will not be allowed unless offsite options available through 9VAC25-870-69 have been considered and found not available.

(G) Exceptions to section 13-107 shall be heard and determined by the planning commission after hearing and notice pursuant to section 11-300. The schedule for reviewing the exception shall be made by the director of T&ES and the director of planning and zoning. The schedule shall provide, in a manner approved by the city manager, reasonable opportunity for review and action by the environmental policy commission prior to any formal action by the planning commission so that any recommendation of support, denial, or modification can be considered as part of the planning commission's deliberations.

(H) A record of all exceptions granted shall be maintained by the director of T&ES.

(I) Any person aggrieved by a decision of the director of T&ES or planning commission under this section may appeal as provided in section 13-120.

### **13-120 - Appeals.**

(A) Any person aggrieved by a final case decision of the director of T&ES in the administration, interpretation or enforcement of this Article XIII or on any application hereunder may appeal such decision to the planning commission, by filing a notice of appeal, in writing, stating the grounds of appeal, with the secretary of the planning commission within 14 days of the issuance of such decision; provided, that any person aggrieved, who had no actual knowledge of the issuance of such decision, may file an appeal within 14 days of the last day on which notice provided in section 11-300 or section 11-408 of this ordinance is given for any element of the plan of development. A notice of appeal shall be accompanied by a filing fee of \$100.00.

(B) The planning commission shall conduct a public hearing on any appeal filed pursuant to section 13-120(A), notice for which shall be provided in accordance with the applicable provisions of section 11-300 of this ordinance. Following the conclusion of the hearing, the planning commission may affirm, reverse or modify the decision of the director of T&ES, or vacate the decision and remand the matter to the director of T&ES for further consideration.

(C) Any person aggrieved by a decision of the planning commission issued pursuant to section 13-119(D) or section 13-120(B), or the city manager, may appeal the decision to the city council, by filing a notice of appeal, in writing, stating the grounds of appeal, with the city clerk within 14 days of the issuance of the decision.

(D) The city council shall conduct a public hearing on any appeal filed pursuant to subsection (C), notice for which shall be provided in accordance with the applicable provisions of section 11-300 of this ordinance. Following the conclusion of the hearing, the council may affirm, reverse or modify the decision of the commission, or vacate the decision and remand the matter to the planning commission or the director of T&ES for further consideration.

(E) Notwithstanding the provisions of subsections (A) through (D) above, an applicant or any aggrieved party who elects to appeal shall appeal the director of T&ES's decision of approval or disapproval of a stormwater management plan application by filing a notice of appeal with the

director of T&ES within 30 days after service of such decision. The filing of such notice, and proceedings thereafter, shall be governed by part 2A of the Rules of the Supreme Court of Virginia, and judicial review shall be had in the Circuit Court of the City of Alexandria on the record previously established, and shall otherwise be in accordance with the Administrative Process Act, Virginia Code sections 9-6.14:1 et seq.

### **13-121 - Hearings.**

(A) Any applicant, permittee, or person subject to this article aggrieved by any action of the city taken without a formal hearing, or by inaction of the city, may demand in writing a formal hearing by the planning commission, provided a petition requesting such hearing is filed with the director of T&ES within 30 days after notice of such action is given by the director of T&ES.

(B) The hearings held under this section shall be conducted by the planning commission at a regular or special meeting of the planning commission or by at least one member of the planning commission designated by the planning commission to conduct such hearings on behalf of the planning commission at any other time and place authorized by the planning commission.

(C) A verbatim record of the proceedings of such hearing shall be taken and filed with the planning commission. Depositions may be taken and read as in actions at law.

(D) The planning commission or its designated member, as the case may be, shall have power to issue subpoenas and subpoenas duces tecum, and at the request of any party shall issue such subpoenas. The failure of a witness without legal excuse to appear or testify or to produce documents shall be acted upon by the city whose action may include the procurement of an order of enforcement from the circuit court. Witnesses who are subpoenaed shall receive the same fees and reimbursements for mileage as in civil actions.

### **13-122 - Noncomplying land uses and structures.**

(A) Any land use or structure lawfully existing on January 28, 1992, or any land use or structure that exists at the time of any amendment to this Article XIII that does not comply as a result of the amendment, shall be deemed noncomplying.

(B) Any proposed land use or structure for which an applicant has a an approved preliminary site plan, building permit, subdivision plan, plot plan, or special use permit on or before February 23, 2004 that would not comply under proposed amendments to Article XIII pursuant to the December 10, 2001 amendments to 9VAC10-20-10 et seq may be constructed in accordance with the provisions of this Article XIII in effect at the time of submittal, except that the proposed land use or structure shall comply with any new requirements to the maximum extent practicable. Upon completion, the land use or structure shall be deemed noncomplying.

(C) Any application for a proposed land use or structure that is not exempt pursuant to (A) or (B) above shall comply with amendments to Article XIII adopted pursuant to the December 10, 2001 amendments to 9VAC10-20-10 et seq.

(D) Nothing in this Article XIII shall prevent the reconstruction of noncomplying structures destroyed by any casualty unless the reconstruction is otherwise restricted by this ordinance or other portions of the City Code. Such reconstruction shall occur within two years after the destruction or damage and there shall be no increase in the amount of impervious area and no further encroachment in the RPA, to the extent possible by sound engineering practices.

(E) Any noncomplying land use or structure may continue and be maintained, including renovation, remodeling, and other cosmetic alterations provided that the activity does not result in land disturbance and that there is no net increase in nonpoint source pollutant load.

(F) A request to enlarge or expand a principal noncomplying structure within an RPA buffer area may be approved by the director of T&ES through an administrative process provided that:

(a) The principal structure remains intact and the modification is compatible in bulk and scale to those in the surrounding neighborhood area, as determined by the director of planning and zoning. If these criteria are not met, the modification shall be subject to the exception request process requirements of section 13-119.

(b) There will be no increase in nonpoint source pollution load.

(c) Any development or land disturbance exceeding an area of 2,500 square feet complies with section 5-4-1 et seq. of the City Code (erosion and sediment control).

(d) The director of T&ES finds that the request is consistent with the criteria provided in section 13-116(B).

(G) A request to construct or modify a non-attached noncomplying accessory structure, or a request to modify or expand a noncomplying land use (e.g., a parking area, boat storage area, active recreation fields, etc.), shall only be approved through the exceptions process outlined in section 13-119.

### **13-123 - Exemptions.**

(A) The following uses, which may involve structures, fill, flooding, draining, dredging, or excavating, shall be exempted from section 13-107, to the extent specifically enumerated in these regulations and not prohibited by any other provision of the City Code or applicable law and subject to the director of T&ES review and approval of design and construction plans for compliance with this Article XIII:

(1) Construction, installation, operation and maintenance of electric, natural gas, fiber-optic, and telephone lines, railroads and public roads constructed by VDOT or by or for the City of Alexandria in accordance with VDOT standards (built separately from development projects regulated under section 13-106), and their appurtenant structures. The exemption of public roads is further conditioned on the alignments being designed to prevent or otherwise minimize the encroachment in the RPA buffer and to minimize adverse effects on water quality.

(2) Construction, installation, and maintenance of water, sewer, natural gas, underground telecommunications and cable television lines owned or permitted by the City of Alexandria or a service authority shall be exempt from the requirements of section 13-107 provided that:

(a) To the degree possible, the location of such utilities and facilities shall be outside RPAs;

(b) No more land shall be disturbed than is necessary to provide for the proposed utility installation; and,

(c) All such construction, installation, and maintenance of such utilities and facilities shall be in compliance with all applicable state and federal requirements and permits, and

designed and conducted in a manner that protects water quality.

(B) Notwithstanding any other provisions of this article, the following uses, which may involve structures, fill, flooding, draining, dredging, or excavating, shall be exempt from this article.:

- (1) Land disturbing activities less than 2,500 square feet not part of a larger common plan of development or sale, except as may be required in 13-107 for CPBA,
- (2) Land disturbances associated with 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 Code of Virginia;
- (3) Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of a project. The paving of existing road with a compacted or impervious surface and re-establishment of existing ditches and shoulders is deemed routine maintenance if performed in accordance with this subsection;
- (4) Conducting land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the director of T&ES shall be advised of the disturbance within seven days of commencing the land-disturbing activity and compliance with this Article XIII shall be required within 30 days of commencing the land-disturbing activity;
- (5) Land clearing for agricultural or silvicultural purposes, and related activities, in accordance with section 62.1-44.15:34.C.2 of the Code of Virginia; and,
- (6) Activities under a state or federal reclamation program to return an abandoned property to an agricultural or open land use.

(C) Discharges to a sanitary sewer or a combined sewer shall be exempt from section 13-113 (stormwater pollution prevention plan), section 13-116 (pollution prevention plan), and the requirement to obtain a VSMP construction general permit unless otherwise required by City Code or state or federal law. All other applicable portions of this article shall continue to apply.

(D) Single-family residences separately built and disturbing less than one acre and not part of a larger common plan of development or sale, including additions or modifications to existing single-family detached residential structures are exempt from the water quality requirements of sections 109(E)(3) and (E)(4) except the Alexandria water quality volume default requirement in section 109(E)(5) still applies.

#### **13-124 – Time limits on applicability of design criteria and Grandfathering.**

(A) The time limits on applicability of design criteria shall apply provided:

- (1) Land-disturbing activities that obtain an initial state permit or commence land disturbance prior to July 1, 2014 shall be conducted in accordance with the technical criteria in 9VAC-25-870-93 through 9VAC25-870-99. Such projects shall remain subject to these technical criteria for two additional state construction general permit cycles. After such time,

portions of the project not under construction shall become subject to any new technical criteria adopted by the board.

(2) Land-disturbing activities that obtain an initial state construction general permit on or after July 1, 2014 shall be conducted in accordance with the technical criteria in sections 109 (E) and (F), except for as provided in (B) below, and shall remain subject to this technical criteria for two additional state permit cycles. After such time, portions of the project not under construction shall become subject to any new technical criteria adopted by the board.

(3) Nothing in this section shall preclude an operator from constructing to a more stringent standard at his/her discretion.

(B) Grandfathering provisions established in 9VAC25-870-48 shall apply to this article as applicable. Any land disturbing activity shall be considered grandfathered by the VSMP authority and shall be subject to the technical criteria of 9VAC25-870-93 through 9VAC25-870-99, provided:

(1) A proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent thereto (i) was approved by the locality prior to July 1, 2012, (ii) provided a layout as defined in 9VAC25-870-10, (iii) will comply with the technical criteria of 9VAC25-870-93 through 99, (iv) has not been subsequently modified or amended in a manner resulting in an increase in the amount of phosphorus leaving each point of discharge, and such that there is no increase in the volume or rate of runoff;

(2) A state permit has not been issued prior to July 1, 2014; and

(3) Land disturbance did not commence prior to July 1, 2014.

(C) Locality, state and federal projects shall be considered grandfathered and shall be subject to the technical criteria in 9VAC25-870-93 through 9VAC25-870-99 provided:

(1) There has been an obligation of locality, state or federal funding, in whole or in part, prior to July 1, 2012, or the department has approved a stormwater management plan prior to July 1, 2012;

(2) A state permit has not been issued prior to July 1, 2014; and

(3) Land disturbance did not commence prior to July 1, 2014.

(D) Land disturbing activities grandfathered under subsections A and B of this section shall remain subject to 9VAC25-870-93 through 99 technical criteria for one additional state permit cycle. After such time, portions of the project not under construction shall become subject to any new technical criteria adopted by the board.

(E) In cases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2012, such project shall be subject to the technical criteria of 9VAC25-870-93 through 99.

(F) Nothing in this section shall preclude an operator from constructing to a more stringent standard at his discretion.

(G) However, these applicable land-disturbing activities are also subject to more stringent City

criteria effective prior to July 1, 2014. This includes the definition of “site”, treating the entire Alexandria water quality volume in 13-109(E), the pre/post-development peak flow rate requirement for the 10-year 24-hour storm event in 13-109(F)(2), the requirements in 13-109(F)(3), and the requirements in 13-109(F)(7).

#### **13-125 – Monitoring and inspections.**

(A) The director of T&ES shall inspect the land disturbing activity during construction for compliance with this Article XIII, including but not limited to compliance with the approved erosion and sediment control plan, compliance with the approved stormwater management plan, development, updating, and implementation of the pollution prevention plan, and development and implementation of any additional control measures necessary to address a TMDL.

(B) The director of T&ES may, at reasonable times and under reasonable circumstances, enter any establishment or upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations necessary in the enforcement of the provisions of this Article XIII.

(C) In accordance with a performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement or instrument, the director of T&ES may also enter any establishment or upon any property, public or private, for the purpose of initiating or maintaining appropriate actions that are required by the permit conditions associated with a land-disturbing activity when a permittee, after proper notice, has failed to take acceptable action within a time specified.

(D) Pursuant to section 62.1-44.15:40 of the Code of Virginia, the director of T&ES may require every permit applicant or permittee, or any such person subject to the requirements of this Article XIII to furnish when requested such application materials, plans, specifications, and other pertinent information as may be necessary to determine the effect of the discharge on the quality of state waters, or such other information as may be necessary to accomplish the purpose of this Article XIII.

(E) Post-construction inspections of stormwater management facilities required by the provisions of this Article XIII shall be conducted by the director of T&ES pursuant to section 13-109(G).

#### **13-126 - Penalties.**

(A) Under the authority of 9VAC25-870-116 the director of T&ES shall have the following authority to enforce provisions of this Article XIII required or authorized under section 62.1-44.15:24 et seq of the Code of Virginia (the Virginia Stormwater Management Act) and its attendant regulations:

(1) If the director determines that there is a failure to comply with the VSMP authority permit conditions or determines there is an unauthorized discharge, notice shall be served upon the permittee or person responsible for carrying out the permit conditions by any of the following: verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the development activities to the agent or employee supervising such activities.

(a) The notice shall specify the measures needed to comply with the permit conditions and shall specify the time within which such measures shall be completed. Upon failure to

comply within the time specified, a stop work order may be issued in accordance with Subsection (b) or the permit may be revoked by the director of T&ES.

(b) If a permittee fails to comply with a notice issued in accordance with this Section within the time specified, the director of T&ES may issue an order requiring the owner, permittee, person responsible for carrying out an approved plan, or the person conducting the land-disturbing activities without an approved plan or required permit to cease all land-disturbing activities until the violation of the permit has ceased, or an approved plan and required permits are obtained, and specified corrective measures have been completed.

Such orders shall be issued in accordance with local procedures. Such orders shall become effective upon service on the person by certified mail, return receipt requested, sent to his address specified in the land records of the locality, or by personal delivery by an agent of the director of T&ES. However, if the director of T&ES finds that any such violation is grossly affecting or presents an imminent and substantial danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth or otherwise substantially impacting water quality, it may issue, without advance notice or hearing, an emergency order directing such person to cease immediately all land-disturbing activities on the site and shall provide an opportunity for a hearing, after reasonable notice as to the time and place thereof, to such person, to affirm, modify, amend, or cancel such emergency order. If a person who has been issued an order is not complying with the terms thereof, the director of T&ES may institute a proceeding for an injunction, mandamus, or other appropriate remedy in accordance with (3) below.

(2) In addition to any other remedy provided by this article, if the director of T&ES or his designee determines that there is a failure to comply with the provisions of this article, they may initiate such informal and/or formal administrative enforcement procedures in a manner that is consistent with local public facilities/engineering manuals and/or specific policy.

(3) Any person violating or failing, neglecting, or refusing to obey any rule, regulation, ordinance, order, approved standard or specification, or any permit condition issued by the director of T&ES may be compelled in a proceeding instituted in the appropriate local court by the Locality to obey same and to comply therewith by injunction, mandamus or other appropriate remedy.

(4) Any person who violates any provision of this article or who fails, neglects, or refuses to comply with any order of the director of T&ES, shall be subject to a civil penalty not to exceed \$32,500 for each violation within the discretion of the court. Each day of violation of each requirement shall constitute a separate offense.

(a) Violations for which a penalty may be imposed under this subsection shall include but not be limited to the following:

- (i) No state permit registration;
- (ii) No SWPPP;
- (iii) Incomplete SWPPP;

- (iv) SWPPP not available for review;
- (v) No approved erosion and sediment control plan;
- (vi) Failure to install stormwater BMPs or erosion and sediment controls;
- (vii) Stormwater BMPs or erosion and sediment controls improperly installed or maintained;
- (viii) Operational deficiencies;
- (ix) Failure to conduct required inspections;
- (x) Incomplete, improper, or missed inspections; and,
- (xi) Discharges not in compliance with the requirements of 4FAC50-60-1170 of the general permit.

(b) The director of T&ES may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court.

(c) In imposing a civil penalty pursuant to this Subsection, the court may consider the degree of harm caused by the violation and also the economic benefit to the violator from noncompliance.

(d) Any civil penalties assessed by a court as a result of a summons issued by the city shall be paid into the treasury of the city and specifically placed into the Alexandria Water Quality Improvement Fund established in section 13-110 and used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the city and abating environmental pollution therein in such manner as the court may, by order, direct.

(5) Notwithstanding any other civil or equitable remedy provided by this section or by law, any person who willfully or negligently violates any provision of this article, any order of the director of T&ES, any condition of a permit, or any order of a court shall, be guilty of a misdemeanor punishable by confinement in jail for not more than 12 months or a fine of not less than \$2,500 nor more than \$32,500, or both.

(B) Under the authority of 62.1-44.15:74 of the Code of Virginia the director of T&ES shall have the following authority to enforce provisions of this Article XIII required or authorized under section 62.1-44.15:73 of the Code of Virginia (the Chesapeake Bay Preservation Act) and its attendant regulations:

(1) Any person who: (i) violates any provision of this ordinance or (ii) violates or fails, neglects, or refuses to obey any final notice, order, rule, regulation, or variance or permit condition authorized under this ordinance shall, upon such finding by an appropriate circuit court, be assessed a civil penalty not to exceed \$5,000.00 for each day of violation. Such civil penalties may, at the discretion of the court assessing them, be directed to be paid into the Alexandria Water Quality Improvement Fund for the purpose of abating environmental damage to or restoring Chesapeake Bay Preservation Areas therein, in such a manner as the court may direct by order, except that where the violator is the city itself or its agent, the court shall direct the penalty to be paid into the state treasury.

ARTICLE XIII. - ENVIRONMENTAL MANAGEMENT  
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(2) With the consent of any person who: (i) violates any provision of this ordinance related to the protection of water quality in Chesapeake Bay Preservation Areas or (ii) violates or fails, neglects, or refuses to obey any notice, order, rule, regulation, or variance or permit condition authorized under this ordinance, the city may provide for the issuance of an order against such person for the one-time payment of civil charges for each violation in specific sums, not to exceed \$10,000.00 for each violation. Such civil charges shall be paid into the city water quality improvement fund for the purpose of abating environmental damage to or restoring Chesapeake Bay Preservation Areas therein, except that where the violator is the city itself or its agent, the civil charges shall be paid into the state treasury. Civil charges shall be in lieu of any appropriate civil penalty that could be imposed under (A) above. Civil charges may be in addition to the cost of any restoration required or ordered by the city.

(C) In addition to (A) and (B) above, the director of T&ES shall have the enforcement provisions available in section 11-200 of this ordinance.

(Ord. No. 4443, § 1, 4-22-06)

## Environmental Management Ordinance and Fee Structure

**PROPOSED FEE STRUCTURE**

The State Stormwater Regulations establish fees in 9VAC25-870-800 for the administration of the local stormwater program pursuant to the regulations. This section of the regulations provides for the City to adopt the regulatory fee structure or amend it according to local needs. The City is proposing adoption of the fee structure, with a nominal increase of 10% of the total fee.

**1. Initial VSMP Permit Fee**

The following fees to be paid by applicant apply to any operator seeking coverage under the a July 1, 2014 General VPDES Permit for Discharges of Stormwater from Construction Activities on or after July 1, 2014 to any applicant filing a registration statement to seek coverage under the General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities. The applicant must pay the portion “Due at Final Plan Submittal” when plans are submitted for review. This amount is equal to 50% of the total fee established by 9VAC25-870-820, which allows for no more than 50% of the regulatory established total fee found in that section. This section allows the locality to establish a fee that is greater than that in the regulation. However, the amount due at final plan submittal and the “Portion Paid to DEQ” continues to be based on the total fee established in regulation.

The amount “Due at Bonding Prior to Permit Coverage” is paid directly to the City during remittance of monies for project bonding. The “Portion Paid to DEQ” is based on 28% of the total fee set in regulation and does not change regardless of whether the locality increases or decreases the total amount. This must be paid by the applicant directly to the Virginia Department of Environmental Quality (DEQ). Both of these amounts are due prior to the issuance of coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities. During submittal, 50% of the base total fee to be paid by applicant set out in this part shall be due at the time that a stormwater management plan or an initial stormwater management plan is submitted for review in accordance with 9VAC25-870-108. The remaining total fee to be paid by applicant balance shall be due with project bonding and prior to the issuance of coverage under the General Permit for Discharges of Stormwater from Construction Activities.

When a site or sites are purchased for development within a previously permitted common plan of development or sale, the applicant shall be subject to fees ("total fee to be paid by applicant" column) in accordance with the disturbed acreage of their site or sites according to the following table. State or federal projects regulated directly by DEQ will not be subject to these fees.

INITIAL VSMP PERMIT TYPE	Total Fee to be Paid	Due at Final Plan Submittal <sup>1</sup>	Due at Bonding Prior to Permit Coverage	Portion Paid to DEQ <sup>2</sup>
Chesapeake Bay Preservation Act Land Disturbing Activity (sites equal to or greater than 2,500 SF and less than 1 acre within Chesapeake Bay	\$319290 <sup>3</sup>	\$145	\$145	\$0

## Environmental Management Ordinance and Fee Structure

Preservation Areas but not subject to General Permit coverage) that are Single Family Residential development (not within common plans of development or sale)				
Chesapeake Bay Preservation Act Land Disturbing Activity (sites equal to or greater than 2,500 SF and less than 1 acre within Chesapeake Bay Preservation Areas but not subject to General Permit coverage) that are Commercial development (not within common plans of development or sale)	\$319 <del>290</del> <sup>4</sup>	\$145	\$174 <del>145</del>	\$0
General/Stormwater Management – Small Activity (areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$319 <del>290</del>	\$145	\$93	\$81
General/Stormwater Management – Small Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 1 acre and less than 5 acres)	\$2,970 <del>2,700</del>	\$1,350	\$864	\$756
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 5 acres and less than 10 acres)	\$3,740 <del>3,400</del>	\$1,700	\$1,088	\$952
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 10 acres and less than 50 acres)	\$4,950 <del>4,500</del>	\$2,250	\$1,440	\$1,260
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 50 acres and less than 100 acres)	\$6,710 <del>6,400</del>	\$3,050	\$1,952	\$1,708
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 100 acres)	\$10,560 <del>9,600</del>			\$2,688

<sup>1</sup>Half of the total fee that is established by 9VAC25-870-820 is due during submittal of the stormwater management plan during final review.

<sup>2</sup>This is the portion of the total fee paid by the applicant directly to the Virginia Department of Environmental Quality. If the project is completely administered by the Department such as may be the case for a state or federal project or projects covered by individual state permits, the entire total fee established in regulation shall be paid to the Department. Methods of payment must conform to 9VAC25-870-760.

## Environmental Management Ordinance and Fee Structure

<sup>3</sup>Single family residential development not part of a larger common plan of development or sale and less than one acre is exempt from meeting the water quality and quantity criteria of Section 13-109, consistent with § 62.1-44.15:34.C.3. Therefore, this fee is not part of the VSMP fee schedule.

<sup>4</sup>Commercial development not part of a larger common plan of development or sale and less than one acre is not exempt from meeting the water quality and quantity criteria of Section 13-109.

### **2. Fees for Permit Modifications**

If the state permit modifications result in changes to stormwater management plans that require additional review by the City, such reviews shall be subject to the following fees. In addition to the permit modification fee, modifications resulting in an increase in total disturbed acreage shall pay the difference in the initial state permit fee paid and the state permit fee that would have applied for the total disturbed acreage in the fee structure above for initial permitting. All fees are to be paid by the applicant and submitted directly to the City.

STORMWATER MANAGEMENT FEES – MODIFICATIONS OR TRANSFERS: Total Fee	
General/Stormwater Management – Small Activity (areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$22 <del>20</del>
General/Stormwater Management – Small Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 1 acre and less than 5 acres)	\$220 <del>200</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 5 acres and less than 10 acres)	\$275 <del>250</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 10 acres and less than 50 acres)	\$330 <del>300</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 50 acres and less than 100 acres)	\$495 <del>450</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 100 acres)	\$770 <del>700</del>

### **3. Annual Permit Maintenance Fees**

The following annual permit maintenance fees to maintain coverage under the General VPDES Permit for Discharges from Construction Activities apply to each type of category identified below, including expired general permits that have been administratively continued. These fees shall apply until general permit coverage is terminated. The total fee must be paid by the applicant to the City. Fees are due by April 1 of each year.

## Environmental Management Ordinance and Fee Structure

STORMWATER MANAGEMENT FEES – PERMIT MAINTENANCE:	Total Fee
Chesapeake Bay Preservation Act Land Disturbing Activity (sites equal to or greater than 2,500 SF and less than 1 acre within Chesapeake Bay Preservation Areas but not subject to General Permit coverage) Single Family Residential and Commercial developments	\$55 <del>50</del>
General/Stormwater Management – Small Activity (areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$55 <del>50</del>
General/Stormwater Management – Small Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 1 acre and less than 5 acres)	\$440 <del>400</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 5 acres and less than 10 acres)	\$550 <del>500</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 10 acres and less than 50 acres)	\$715 <del>650</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 50 acres and less than 100 acres)	\$990 <del>900</del>
General/Stormwater Management – Large Activity (sites or areas within common plans of development or sale with land disturbance acreage equal or greater than 100 acres)	\$1,540 <del>1,400</del>

#### **4. Non-Payment of Fees**

All incomplete payments will be deemed as non-payments, and the applicant shall be notified of any incomplete payments. Interest shall be charged for late payments at the underpayment rate set forth in Code of Virginia §58.1-15 and is calculated on a monthly basis at the applicable periodic rate. A 10% late payment fee shall be charged to any delinquent account, defined as over 90 days past due. The city is entitled to all remedies under the Code of Virginia in collecting any past due amount.

#### **5. Staff Recommendation**

Staff recommends adopting the above fee structure effective July 1, 2014 for administration of the expanded local stormwater program requirements.



February 4, 2014

The Honorable Mayor Bill Euille and Members of City Council  
City of Alexandria  
Alexandria, VA 22314

**Adoption of Revised Environmental Management Ordinance**

Dear Mayor Euille and Members of Council:

On behalf of the Environmental Policy Commission (EPC), I am writing to convey our support for the adoption of the revised Environmental Management Ordinance. The revised ordinance is a significant step forward in reducing non-point source pollution directed to the Potomac River and the Chesapeake Bay. The additional pollutant removal requirements and the new focus on better management of smaller, more frequent storm events will benefit water quality in the creeks and streams of our local watersheds. Updating the Environmental Management Ordinance will help the City achieve water quality goals and corresponding action items established in the "Environmental Action Plan – 2030."

Although the majority of the revisions in the revised ordinance are mandated by the State of Virginia, there are additional more stringent provisions that have been included to help protect natural resources and assist the City in meeting the stringent pollution reductions required by the City's Municipal Separate Storm Sewer System (MS4) permit. These include continuing to protect natural intermittent streams and retaining the requirement to provide water quality treatment for the first half inch of runoff for all impervious surfaces. These provisions are important in maintaining the progress Alexandria has made to date in protecting natural resources and reducing stormwater pollution.

In addition to the existing more stringent requirements mentioned above, the ordinance provides new flexibility for smaller scale redevelopment projects by limiting the area of the site on which stormwater regulations applies. If a project disturbs less than 50% of the overall tax parcel then stormwater regulations apply only to the disturbed area. Once the project disturbs greater than 50% of the overall tax parcel, the entire parcel is required to meet stormwater regulations. This provision is less stringent than the current City ordinance but more stringent than what the State requires and is a good middle between the two.

Finally the new ordinance includes a waiver of state stormwater requirements for single family homes less than an acre in size but retains the existing City requirement to treat the first half inch of runoff from impervious surfaces through a best management practice or to contribute to the City's

(over)

water quality fee-in-lieu program. This provision will help the City meet the required pollution reduction targets while providing a choice to homeowners as to how they address stormwater for their individual projects.

In conclusion, EPC supports adoption of the new ordinance, as it will aid the City in achieving the goals set forth in the Environmental Action Plan and help ensure that the City is a good steward of local streams, the Potomac River, and the Chesapeake Bay.

Thank you for your time and consideration, and for your work on behalf of Alexandria.

Sincerely,

A handwritten signature in black ink, appearing to be "Scott Barstow", with a long horizontal line extending to the right.

Scott Barstow  
Chair, Environmental Policy Commission

CC: Planning Commission