AGENDA ITEM ACTION REQUEST

	Meeting Date: April 22, 2014 Meeting Type: Regular x Special
Requestor: Manager City AttorneyX Department Other	Item: Public Hearing - To consider enacting City Code Section Title 10, Section 7 "Stormwater Management" and related fees and standards.
Reviewed: Manager City Attorney Department Other	Review: This ordinance and associated permit program regulates land development and redevelopment projects that disturb certain acreages of land. The Virginia Stormwater Management Law and Regulations, administered by the Virginia Department of Environmental Quality (DEQ), requires certain Virginia local governments to implement a Virginia Stormwater Management Permit (VSMP) program beginning July 1, 2014. This program regulates stormwater management practices for new land development and redevelopment projects that disturb certain acreages of land.
Recommend: Yes No Manager City Attorney	DEQ has requested that regulated local jurisdictions submit by May 15 final, locally-approved versions of their VSMP ordinance, fee schedules and standards, sufficient to implement their VSMP programs beginning July 1. New fees, referenced in the proposed ordinance, are included for stormwater management plan review, permitting, permit maintenance and permit transfers. Existing review fees for re-submission of site plans and erosion control plans are also proposed to be reduced slightly from what is current.
Department Other	These fees are for regulation of, and permitting for, land development and redevelopment projects, and are seperate from any fees, taxes, special assessments or other potential funding sources that the City may be considering for funding of other elements of its overall stormwater program.
	The City Engineer will ask City Council to approve a new Stormwater Management ordinance, new and modified fee schedules and revisions to the Design and Construction Standards Manual related to this program. Such documents shall become effective on July 1, 2014.
	Attachments: 1. Proposed ordinance; City Code Title 10, Section 7 "Stormwater Management". 2. Proposed Stormwater Management Plan and Permit Fees. 3. Proposed minor revisions to Site Plan and Erosion Control Plan review fees. 4. Proposed revisions to City Design and Construction Standards Manual.

VSMP STORMWATER PERMIT PROGRAM

PRESENTATION TO CITY COUNCIL FOR ORDINANCE APPROVAL

APRIL 22, 2014

INDEX TO PDF ATTACHMENTS:

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3-19	Proposed Stormwater Management Ordinance
20-23	Proposed Stormwater Management Fee Schedule
24-25	Proposed Revised Fee Schedule (Site Plan, Erosion Control Plan)
26-45	Proposed revisions to City Design & Construction Standards Manual • Erosion Control and Stormwater Management narrative sections • BMP Maintenance Agreement

APRIL 22, 2014

Important changes to proposed SWM Ordinance, Fee Schedules and DCSM since January 2014 City Council review:

ORDINANCE:

- Reformatted section numbers per typical code; added declaration and signature panel
- Throughout misc. corrections to state code references
- Sec. 10-7-2 revised Administrator definition to reference City Engineer
- Sec. 10-7-4 added relaxed provisions for single family homes (Par. g)
- Sec. 10-7-6 added statement on individual lots in subdivision developments
- Sec. 10-7-9 (par. b) revised grandfathering language per DEQ review
- Sec. 10-7-12 added specific Hearings section per City Attorney
- Sec. 10-7-13 revised Appeals section per City Attorney

STORMWATER MANAGEMENT PLAN & PERMIT FEE SCHEDULE:

Table 1 – revised fees for single family home construction disturbing less than 5 acres

SITE AND EROSION CONTROL PLAN REVIEW FEE SCHEDULE:

Revised fees for plan resubmittals

DESIGN & CONSTRUCTION STANDARDS MANUAL:

- Sec. 2.5.1.1.1 revised to address Agreement in Lieu of a Plan for single family home construction disturbing less than 5 acres. Added provision of grading plan for building permits on lots containing stormwater BMPs.
- Sec. 2.5.1.5 revised BMP Table to reflect new BMP designations
- Sec. 2.5.4.1 revised BMP As-Built Certification to require record drawings
- Appendix I, BMP Maintenance Agreement, par. 5&7 revised repair schedule to 90 days; added case-by-case option for increased time under Action Plan agreement; added provision for recovering spent funds that exceed bond recovery funds.
- Appendix J, BMP Post-Construction Maintenance Policy deleted City-developed inspection forms (will require use of DEQ forms from VA SWM Handbook)

ORDINANCE ENACTING SECTION TITLE 10, CHAPTER 7 "STORMWATER MANAGEMENT" OF THE

CODE OF ORDINANCES CITY OF HARRISONBURG, VIRGINIA

Be it ordained by the Council of the City of Harrisonburg, Virginia:

That Title 10, Chapter 7 "Stormwater Management" be added as follows:

Sec. 10-7-1. PURPOSE AND AUTHORITY. (Section 9VAC25-870-20, 9VAC25-870-40)

- (a) The purpose of this Ordinance is to ensure the general health, safety, and welfare of the citizens of the City of Harrisonburg, Virginia and protect the quality and quantity of state waters from the potential harm of unmanaged stormwater, including protection from a land disturbing activity causing unreasonable degradation of properties, water quality, stream channels, and other natural resources, and to establish procedures whereby stormwater requirements related to water quality and quantity shall be administered and enforced.
- (b) This ordinance is adopted pursuant to Article 2.3 (§ 62.1-44.15:27 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

Sec. 10-7-2. DEFINITIONS. (9VAC25-870-10)

In addition to the definitions set forth in 9VAC25-870-10 of the Virginia Stormwater Management Regulations, as amended, which are expressly adopted and incorporated herein by reference, the following words and terms used in this Ordinance have the following meanings unless otherwise specified herein. Where definitions differ, those incorporated herein shall have precedence.

"Administrator" means the City Engineer or their designee.

"Agreement in lieu of a stormwater management plan" means a contract between the city and the owner or permittee that specifies methods that shall be implemented to comply with the requirements of this Ordinance for the construction of a single-family residence; such contract may be executed by the city in lieu of a stormwater management plan.

"Applicant" means any person submitting an application for a permit or requesting issuance of a permit under this Ordinance.

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

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

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

"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.

"Department" means the Department of Environmental Quality.

"Development" means land disturbance and the resulting landform associated with the construction of residential, commercial, industrial, institutional, recreation, transportation or utility facilities or structures or the clearing of land for non-agricultural or non-silvicultural purposes.

"General permit" means the state permit titled GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES found in Part XIV (9VAC25-880-1 et seq.) of the Regulations authorizing a category of discharges under the CWA and the Act within a geographical area of the Commonwealth of Virginia.

"Land disturbance" or "land-disturbing activity" means a man-made change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation except that the term shall not include those exemptions specified in Section 1-3 (c) of this Ordinance.

"Layout" means a conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

"Minor modification" means 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.

"Operator" means the owner or operator of any facility or activity subject to regulation under this Ordinance.

"Permit" or "VSMP Authority Permit" means an approval to conduct a land-disturbing activity issued by the Administrator for the initiation of a land-disturbing activity, in accordance with this Ordinance, and which may only be issued after evidence of general permit coverage has been provided by the Department.

"Permittee" means the person to whom the VSMP Authority Permit is issued.

"Person" means any individual, corporation, partnership, association, state, 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.

"Regulations" means the Virginia Stormwater Management Program (VSMP) Permit Regulations, 9VAC25-870, as amended.

"Site" means 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.

"State" means the Commonwealth of Virginia.

"State Board" means the Virginia State Water Control Board.

"State permit" means an approval to conduct a land-disturbing activity issued by the State Board in the form of a state stormwater individual permit or coverage issued under a state general permit or an approval issued by the State Board for stormwater discharges from an MS4. Under these state permits, the Commonwealth imposes and enforces requirements pursuant to the federal Clean Water Act and regulations, the Virginia Stormwater Management Act and the Regulations.

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

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

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

"Stormwater management plan" means a document(s) containing material describing methods for complying with the requirements of Section 1-6 of this Ordinance.

"Stormwater Pollution Prevention Plan" or "SWPPP" means a document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants

that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and otherwise meets the requirements of this Ordinance. 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, an approved stormwater management plan, and a pollution prevention plan.

"Subdivision" means the same as defined in Section 10-1-1 of the city Subdivision Ordinance.

"Total maximum daily load" or "TMDL" means 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 tradeoffs.

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

"Virginia Stormwater BMP Clearinghouse website" means the website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and associated regulations.

"Virginia Stormwater Management Program" or "VSMP" means a program approved by the State Board after September 13, 2011, 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, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement, where authorized in this article, and evaluation consistent with the requirements of this article and associated regulations.

"Virginia Stormwater Management Program authority" or "VSMP authority" means an authority approved by the State Board after September 13, 2011, to operate a Virginia Stormwater Management Program.

Sec. 10-7-3. STORMWATER PERMIT REQUIREMENT; EXEMPTIONS.

- (a) Except as provided herein, no person may engage in any land-disturbing activity until a VSMP authority permit has been issued by the Administrator in accordance with the provisions of this Ordinance.
- (b) Notwithstanding any other provisions of this Ordinance, the following activities are exempt, unless otherwise required by federal law:
 - (1) 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;

- (2) Clearing of lands specifically for agricultural purposes and the management, tilling, planting, or harvesting of agricultural, horticultural, or forest crops, livestock feedlot operations, or as additionally set forth by the State Board in regulations, including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (§ 10.1-1100 et seq.) of Title 10.1 of the Code of Virginia or is converted to bona fide agricultural or improved pasture use as described in Subsection B of § 10.1-1163 of Article 9 of Chapter 11 of Title 10.1 of the Code of Virginia;
- (3) 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;
- (4) Land disturbing activities that disturb less than one acre of land area that are not part of a larger common plan of development or sale that is one acre or greater of disturbance;
- (5) Discharges to a sanitary sewer or a combined sewer system;
- (6) Activities under a State or federal reclamation program to return an abandoned property to an agricultural or open land use;
- (7) Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this Subsection; and
- (8) 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 Administrator shall be advised of the disturbance within seven days of commencing the land-disturbing activity and compliance with the administrative requirements of Subsection (a) is required within 30 days of commencing the land-disturbing activity.

Sec. 10-7-4. STORMWATER MANAGEMENT PROGRAM ESTABLISHED; SUBMISSION AND APPROVAL OF PLANS; PROHIBITIONS.

(a) Pursuant to § 62.1-44.15:27 of the Code of Virginia, the city hereby establishes a Virginia stormwater management program for land-disturbing activities and adopts the applicable Regulations that specify standards and specifications for VSMPs promulgated by the State Board for the purposes set out in Section 1-1 of this Ordinance. The city hereby designates the City Engineer as the Administrator of the Virginia stormwater management program.

- (b) No VSMP authority permit shall be issued by the Administrator, until the following items have been submitted to and approved by the Administrator or his/her authorized agent as prescribed herein:
 - (1) A permit application that includes a general permit registration statement;
 - (2) An erosion and sediment control plan approved in accordance with the city Erosion and Sediment Control Ordinance; and
 - (3) A Stormwater Management Plan that meets the requirements of Section 1-6 of this Ordinance.
 - (4) A Pollution Prevention Plan that meets the requirements of Section 1-6 of this Ordinance.
- (c) No VSMP authority permit shall be issued until evidence of general permit coverage is obtained.
- (d) No VSMP authority permit shall be issued until the fees required to be paid pursuant to Section 1-15, are received, all other city permitting prerequisites are met and a reasonable performance bond required pursuant to Section 1-16 of this Ordinance has been submitted.
- (e) No VSMP authority permit shall be issued unless and until the permit application and attendant materials and supporting documentation demonstrate that all land clearing, construction, disturbance, land development and drainage will be done according to the approved permit.
- (f) No grading, building or other local permit shall be issued for a property unless a VSMP authority permit has been issued by the Administrator.
- (g) In general, the requirements of (a) through (f) above shall be waived for individual lot single family home construction, within or outside of a common plan of development, disturbing less than five acres of land. Applicants for such projects shall execute with the city an "Agreement in Lieu of a Stormwater Management Plan", and shall pay the applicable fees prior to receiving a building permit. Applications for a building permit on such projects on lots that contain an established stormwater best management practice shall include a detailed grading plan sufficient to show continued function of such practice(s) per its (their) original design.

Sec. 10-7-5. STORMWATER POLLUTION PREVENTION PLAN; CONTENTS OF PLANS.

(a) The Stormwater Pollution Prevention Plan (SWPPP) shall include the content specified by Section 9VAC25-870-54 and must also comply with the requirements and general information set forth in Section 9VAC25-870-70, Section II [stormwater pollution prevention plan] of the 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 which is not addressed by the existing SWPPP.
- (c) The SWPPP must be maintained by the operator at a central location onsite. If an onsite location is unavailable, 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.

Sec. 10-7-6. STORMWATER MANAGEMENT PLAN; CONTENTS OF PLAN.

- (a) The Stormwater Management Plan, required in Section 1-4 of this Ordinance, must apply the stormwater management technical criteria set forth in Section 1-9 of this Ordinance to the entire land-disturbing activity, consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to subsurface runoff. (Individual lots in new residential, commercial or industrial subdivisions shall be not considered separate land disturbing activities.) The Stormwater Management Plan shall include the following information:
 - (1) Information on the type and location of stormwater discharges; information on the features to which stormwater is being discharged including surface waters or karst features, if present, and the predevelopment and postdevelopment drainage areas;
 - (2) Contact information including the name, address, and telephone number of the owner and the tax reference number 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 the mechanism through which the facilities will be operated and maintained after construction is complete;
 - (5) Information on the proposed stormwater management facilities, including:
 - (i) The type of facilities;
 - (ii) Location, including geographic coordinates;
 - (iii) Acres treated; and
 - (iv) The surface waters or karst features, if present, 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 quantity requirements of Section 1-9 of this Ordinance and the City Design & Construction Standards Manual;
- (8) A map or maps of the site that depicts the topography of the site and includes:
 - (i) All contributing drainage areas;
 - (ii) Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains;
 - (iii) Soil types, geologic formations if karst features are present in the area, forest cover, and other vegetative areas;
 - (iv) Current land use including existing structures, roads, and locations of known utilities and easements;
 - (v) Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;
 - (vi) The limits of clearing and grading, and the proposed drainage patterns on the site:
 - (vii) Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and
 - (viii) 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 and/or quantity requirements set forth in Section 1-9 of this Ordinance through the use of off-site compliance options, where applicable, then a letter of availability from the off-site provider must be included. Approved off-site options must achieve the necessary nutrient reductions prior to the commencement of the applicant's land-disturbing activity except as otherwise allowed by § 62.1-44.15:35 of the Code of Virginia.
- (c) Elements of the stormwater management plans that include activities regulated under Chapter 4 (§54.1-400 et seq.) of Title 54.1 of the Code of Virginia shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia.
- (d) A construction record drawing for permanent stormwater management facilities shall be submitted to the Administrator. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

Sec. 10-7-7. POLLUTION PREVENTION PLAN; CONTENTS OF PLANS.

(a) Pollution Prevention Plan, required by 9VAC25-870-56, shall be submitted for review and approval as part of the Stormwater Management Plan. The Pollution Prevention Plan 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 and excavations, are prohibited unless managed by appropriate controls.

Sec. 10-7-8. REVIEW OF STORMWATER MANAGEMENT PLAN.

- (a) The Administrator or any duly authorized agent of the Administrator shall review Stormwater Management Plans and accompanying Pollution Prevention Plans and shall approve or disapprove such plans according to the following:
 - (1) The Administrator shall determine the completeness of a plan in accordance with Section 1-6 of this Ordinance, and shall notify the applicant, in writing, of such determination, within 15 calendar days of receipt. If the plan is deemed to be incomplete, the above written notification shall contain the reasons the plan is deemed incomplete.
 - (2) The Administrator 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 in subdivision (1), then plan shall be deemed complete and the Administrator shall have 60 calendar days from the date of submission to review the plan.

- (3) The Administrator shall review any plan that has been previously disapproved, within 45 calendar days of the date of resubmission.
- (4) During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the person responsible for the land-disturbing activity or his designated agent. If the plan is not approved, the reasons for not approving the plan shall be provided in writing. Approval or denial shall be based on the plan's compliance with the requirements of this Ordinance.
- (5) If a plan meeting all requirements of this Ordinance is submitted and no action is taken within the time provided above in subdivision (2) for review, the plan shall be deemed approved.
- (b) Approved stormwater 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 Administrator. The Administrator shall have 60 calendar days to respond in writing either approving or disapproving such request.
 - (2) The Administrator may require that an approved stormwater management plan be amended, within a time prescribed by the Administrator, to address any deficiencies noted during inspection.
- (c) The Administrator shall require the submission of a construction record drawing for permanent stormwater management facilities. The Administrator may elect not to require construction record drawings for stormwater management facilities for which recorded maintenance agreements are not required pursuant to Section 1-10 (b).

Sec. 10-7-9. TECHNICAL CRITERIA FOR REGULATED LAND DISTURBING ACTIVITIES.

- (a) To protect the quality and quantity of state water from the potential harm of unmanaged stormwater runoff resulting from land-disturbing activities, the city hereby adopts the technical criteria for regulated land-disturbing activities set forth in Part II B of the Regulations, as amended, expressly to include 9VAC25-870-63 [water quality design criteria requirements]; 9VAC25-870-65 [water quality compliance]; 9VAC25-870-66 [water quantity]; 9VAC25-870-69 [offsite compliance options]; 9VAC25-870-72 [design storms and hydrologic methods]; 9VAC25-870-74 [stormwater harvesting]; 9VAC25-870-76 [linear development project]; and, 9VAC25-870-85 [stormwater management impoundment structures or facilities], which shall apply to all land-disturbing activities regulated pursuant to this Ordinance, except as expressly set forth in Subsection (b) of this Section.
- (b) Until June 30, 2019, any land-disturbing activity for which a currently valid proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined by the locality as being equivalent thereto, was approved by the city prior to July 1, 2012, and for which no coverage under the general permit has been issued nor land disturbance begun prior to

July 1, 2014, shall be considered grandfathered by the Administrator and shall not be subject to the technical criteria of Part II B of the Regulations, but shall be subject to the technical criteria of Part II C of the Regulations [9VAC25-870-93 through 9VAC25-870-99] for those areas that were included in the approval, provided that the Administrator finds that such proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined by the locality as being equivalent thereto (i) provides for a layout and (ii) the resulting land-disturbing activity will be compliant with the requirements of Part II C. Verification of such compliance must have occurred at the time of City approval of such plat or plan, and have been based upon a plat or plan that (i) identified specific stormwater practices needed to ensure compliance and (ii) included calculations confirming such practices will provide adequate pollutant removal to ensure compliance. In the event that the city-approved document is subsequently modified or amended in a manner such that there is no increase over the previously approved plat or plan in the amount of phosphorus leaving each point of discharge of the land-disturbing activity through stormwater runoff, and such that there is no increase over the previously approved plat or plan in the volume or rate of runoff, the grandfathering shall continue as before.

- (1) Until June 30, 2019, for local, state, and federal projects for which there has been an obligation of local, state, or federal funding, in whole or in part, prior to July 1, 2012, or for which the Administrator has approved a stormwater management plan prior to July 1, 2012, such projects shall be considered grandfathered by the city and shall not be subject to the technical requirements of Part II B of the Regulations, but shall be subject to the technical requirements of Part II C of the Regulations for those areas that were included in the approval.
- (2) For land-disturbing activities grandfathered under this Subsection, construction must be completed by June 30, 2019, or portions of the project not under construction shall become subject to the technical requirements of Subsection (a) above.
- (c) 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 requirements Part IIC of the Regulations, as adopted by the city in Subsection (b) of this Section.
- (d) The Administrator may grant exceptions to the technical requirements of Part II B or Part II C of the Regulations, provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable and appropriate conditions are imposed so that the intent of the Act, the Regulations, and this Ordinance are preserved, (iii) granting the exception will not confer any special privileges that are denied in other similar circumstances, and (iv) exception requests are not based upon conditions or circumstances that are self-imposed or self-created. Economic hardship alone is not sufficient reason to grant an exception from the requirements of this Ordinance.
 - (1) Exceptions to the requirement that the land-disturbing activity obtain required VSMP authority permit shall not be given by the Administrator, nor shall the Administrator approve the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse Website, or any other control measure duly approved by the Director.

- (2) Exceptions to requirements for phosphorus reductions shall not be allowed unless offsite options otherwise permitted pursuant to 9VAC25-870-69 have been considered and found not available.
- (e) Nothing in this Section shall preclude an operator from constructing to a more stringent standard at their discretion.

Sec. 10-7-10. LONG-TERM MAINTENANCE OF PERMANENT STORMWATER FACILITIES – BMP MAINTENANCE AGREEMENT

- (a) The Administrator shall require the provision of long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff. Such requirements shall be set forth in a BMP Maintenance Agreement recorded in the local land records prior to general permit termination or earlier as required by the Administrator and shall at a minimum:
 - (1) Be submitted to the Administrator for review and approval prior to the approval of the stormwater management plan;
 - (2) Be stated to run with the land;
 - (3) Provide for all necessary access to the property for purposes of maintenance and regulatory inspections;
 - (4) Provide for inspections and maintenance and the submission of inspection and maintenance reports to the Administrator; and
 - (5) Be enforceable by all appropriate governmental parties.

Sec. 10-7-11. MONITORING AND INSPECTIONS.

- (a) The Administrator or any duly authorized agent of the Administrator shall inspect the land-disturbing activity during construction for:
 - (1) Compliance with the approved erosion and sediment control plan;
 - (2) Compliance with the approved stormwater management plan;
 - (3) Development, updating, and implementation of a pollution prevention plan; and
 - (4) Development and implementation of any additional control measures necessary to address a TMDL.
- (b) The Administrator or any duly authorized agent of the Administrator 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 Ordinance.

- (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 Administrator may also enter any establishment or upon any property, public or private, for the purpose of initiating or maintaining appropriate actions which 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 the time specified.
- (d) Pursuant to § 62.1-44.15:40 of the Code of Virginia, the Administrator may require every VSMP authority permit applicant or permittee, or any such person subject to VSMP authority permit requirements under this Ordinance, to furnish when requested such application materials, plans, specifications, and other pertinent information as may be necessary to determine the effect of his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of this Ordinance.
- (e) Post-construction inspections of stormwater management facilities required by the provisions of this Ordinance shall be conducted by the Administrator or any duly authorized agent of the Administrator pursuant to the Locality's adopted and State Board approved inspection program, and shall occur, at minimum, at least once every five (5) years except as may otherwise be provided for in Section 1-10. Additional owner-performed inspections may be required in accordance with the BMP Maintenance Agreement.

Sec. 10-7-12. HEARINGS

- (a) The hearing before the city council provided for in section 10-7-13 shall be held at a regular or special meeting of the city council, subject to the following:
 - (1) A verbatim record of the hearing shall be taken and filed with the State Water Control Board.
 - (2) Depositions may be taken and read as in actions at law.
 - (3) The city council has the power to issue subpoenas and subpoenas duces tecum, and at the request of any party shall issue subpoenas. The failure of a witness without legal excuse to appear or to testify or to produce documents shall be acted upon by the city council in the manner prescribed in Virginia Code Section 2.2-4022. Witnesses who are subpoenaed shall receive the same fees and mileage as in civil actions.

Sec. 10-7-13. APPEALS.

(a) Any applicant under the provision of this ordinance who is aggrieved by any action of the city or its agent in disapproving plans submitted pursuant to this chapter shall have the right to apply for and receive a review of such action by the city council provided an appeal is filed within thirty (30) days from the date of the action. Any applicant who seeks an appeal hearing before the city council shall be heard at the next regularly scheduled city council public hearing provided that the city council and other involved parties have at least thirty (30) days prior notice. In reviewing the agent's actions, the city

council shall consider evidence and opinions presented by the aggrieved applicant and agent. After considering the evidence and opinions, the city council may affirm, reverse or modify the action. The city council shall make a final decision within forty five (45) days after the hearing is concluded. The city council's decision shall be in writing and state the date of the decision and the reasons for the decision. Notice of the city council's decision shall be provided to the owner and to any downstream owner who is aggrieved. The city council's decision shall be final, subject only to review by the Circuit Court of Rockingham County, Virginia.

(b) Final decisions by the city under this chapter shall be subject to review by the Circuit Court of Rockingham County, Virginia, provided an appeal is filed within thirty (30) days from the date of any written decision adversely affecting the rights, duties or privileges of the person engaging in or proposing to engage in land-disturbing activities.

Sec. 10-7-14. ENFORCEMENT

- (a) If the Administrator 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.
 - (1) 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 Administrator.
 - (2) If a permittee fails to comply with a notice issued in accordance with this Section within the time specified, the Administrator 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 City 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 Administrator. However, if the Administrator 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 Administrator may institute a proceeding for an injunction, mandamus, or other appropriate remedy in accordance with this ordinance.

- (b) In addition to any other remedy provided by this Ordinance, if the Administrator or his designee determines that there is a failure to comply with the provisions of this Ordinance, they may initiate such informal and/or formal administrative enforcement procedures in a manner that is consistent with city policies.
- (c) 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 Administrator may be compelled in a proceeding instituted in the Circuit Court of Rockingham County, Virginia by the Locality to obey same and to comply therewith by injunction, mandamus or other appropriate remedy.
- (d) Any person who violates any provision of this Ordinance or who fails, neglects, or refuses to comply with any order of the Administrator, shall be subject to a civil penalty in accordance with the schedule below, for each violation, within the discretion of the court. Each day of violation of each requirement shall constitute a separate offense.
 - (1) 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 Section 9VAC 25-880-70 of the general permit.
 - (2) Civil penalties shall be as set forth in the schedule below:

	Land-Disturbance >1ac. Without a Permit	Standard Violations
1st Inspection	Warning issued	Warning issued
2nd Inspection	\$1,000/day	\$100/day/violation
3rd Inspection	\$3,000/day	\$300/day/violation

4th Inspection	\$5,000/day	\$1,000/day/violation
5th Inspection	1 . ,	Revoke Permit/Referral for bond collection

- (3) The Administrator may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court.
- (4) 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.
- (5) Any civil penalties assessed by a court as a result of a summons issued by the Locality shall be paid into the treasury of the city to be used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the locality and abating environmental pollution therein in such manner as the court may, by order, direct.
- (e) 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 Ordinance, any order of the Administrator, 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.

Sec. 10-7-15. FEES

Fees to cover costs associated with implementation of a VSMP related to land disturbing activities and issuance of general permit coverage and VSMP authority permits shall be imposed in accordance with the city's separate fee schedule, entitled "Stormwater Management Plan and Permit Fees".

Sec. 10-7-16. PERFORMANCE BOND (9VAC25-870-104 and Code § 62.1-44.15:34)

Prior to issuance of any permit, the Applicant shall be required to submit a reasonable performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement acceptable to the [local government attorney], to ensure that measures could be taken by the city at the Applicant's expense should he fail, after proper notice, within the time specified to initiate or maintain appropriate actions which may be required of him by the permit conditions as a result of his land disturbing activity. If the city takes such action upon such failure by the Applicant, the city may collect from the Applicant for the difference should the amount of the reasonable cost of such action exceed the amount of the security held, if any. Within 60 days of the completion of the requirements of the permit conditions, such bond, cash escrow, letter of credit or other legal arrangement, or the unexpended or unobligated portion thereof, shall be refunded to the Applicant or terminated.

This ordinance shall be effective fr Adopted and approved this day	 day of, 2014.	, 2014.
MAYOR		
ATTESTE:		
CLERK OF THE COUNCIL		

CITY OF HARRISONBBURG, VIRGINIA STORMWATER MANAGEMENT PLAN & PERMIT FEES EFFECTIVE JULY 1, 2014

1. Fees for plan submission and permit issuance

A. Fees to cover costs associated with implementation of a VSMP related to land disturbing activities and issuance of general permit coverage and VSMP authority permits shall be imposed in accordance with Table 1. Such fees in total are attributable to the costs associated with initial plan review, VSMP registration statement review, permit issuance, state-coverage verification, inspections, reporting, and compliance activities associated with qualified land-disturbing activities as well as state program oversight costs. Fees are separated into those due at plan submission and those due at time of permitting. When a site or sites has been 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 Table 1.

Table 1: Fees for plan submission and permit issuance

Fee type	Total fee to be paid at time of plan submission*	Permit Fee to be paid by Applicant following plan approval **
General / Stormwater Management - Small Construction Activity/Land Clearing involving single family home construction on an individual lot disturbing less than 5 acres, such project covered under an "Agreement in Lieu of a Stormwater Management Plan".	\$200	N/A
General / Stormwater Management - Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre, excluding single family home construction.)	\$145	\$145 (\$81)
General / Stormwater Management - Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 Acres, excluding single family home construction)	\$1,350	\$1,350 (\$756)
General / Stormwater Management — Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$1,700	\$1,700 (\$952)
General / Stormwater Management – Large Construction Activity/Land Clearing [Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres]	\$2,250	\$2,250 (\$1,260)
General / Stormwater Management — Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$3,050	\$3,050 (\$1,708)
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres)	\$4,800	\$4,800 (\$2,688)

^{*}Resubmission of withheld stormwater management plans requires a \$300.00 resubmission fee. Resubmission of stormwater management plans needing minor revisions requires a \$100.00 resubmission fee.

^{**}Fee amount in parentheses is share of total Permit Fee to be reimbursed to DEQ by the city.

- 2. Fees for the modification or transfer of registration statements for the General Permit for Discharges of Stormwater from Construction Activities
- A. Fees for the modification or transfer of registration statements from the general permit issued by the State Board shall be imposed in accordance with Table 2. If the general permit modifications result in changes to stormwater management plans that require additional review by the city, such reviews shall be subject to the fees set out in Table 2. The fee assessed shall be based on the total disturbed acreage of the site. In addition to the general permit modification fee, modifications resulting in an increase in total disturbed acreage shall pay the difference in the initial permit fee paid and the permit fee that would have applied for the total disturbed acreage in Table 1.

Table 2: Fees for the modification or transfer of registration statements for the General Permit for Discharges of Stormwater from Construction Activities

Type of Permit	Fee Amount
General / Stormwater Management – Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$20
General / Stormwater Management – Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 and less than 5 acres)	\$200
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$250
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres)	\$300
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$450
General / Stormwater Management — Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres)	\$700

3. Permit Maintenance Fees

A. The following annual permit maintenance fees shall be imposed in accordance with Table 3, including fees imposed on expired permits that have been administratively continued. General permit coverage maintenance fees shall be paid annually to the city, by the anniversary date of general permit coverage. No permit will be reissued or automatically continued without payment of the required fee. General permit coverage maintenance fees shall be applied until a Notice of Termination is effective.

Table 3: Permit Maintenance Fees

Type of Permit	Fee Amount
General / Stormwater Management – Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$50
General / Stormwater Management — Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance equal to or greater than 1 acre and less than 5 acres)	\$400
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$500
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres)	\$650
General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$900
General / Stormwater Management — Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater 100 acres)	\$1,400

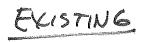
4. General considerations

- A. The fees set forth in Subsections 1 through 3 above, shall apply to:
 - (1) All persons seeking coverage under the general permit.
 - (2) All permittees who request modifications to or transfers of their existing registration statement for coverage under a general permit.
 - (3) Persons whose coverage under the general permit has been revoked shall apply to the Virginia Department of Environmental Quality for an Individual Permit for Discharges of Stormwater From Construction Activities.
 - (4) Permit and permit coverage maintenance fees may apply to each general permit holder.
- B. No general permit application fees will be assessed to:
 - A. Permittees who request minor modifications to general permits as defined in Section 1-2 of the City Stormwater Management Ordinance. Permit modifications at the request of the permittee resulting in changes to stormwater management plans that require additional review by the Administrator shall not be exempt pursuant to this schedule.
 - B. Permittees whose general permits are modified or amended at the initiative of the Virginia Department of Environmental Quality, excluding errors in the registration statement identified by the Administrator or errors related to the acreage of the site.
 - C. All incomplete payments will be deemed as nonpayments, and the applicant shall be notified of any incomplete payments. Interest may be charged for late payments at the underpayment rate set forth

in §58.1-15 of the Code of Virginia and is calculated on a monthly basis at the applicable periodic rate. A 10% late payment fee shall be charged to any delinquent (over 90 days past due) account. The city shall be entitled to all remedies available under the Code of Virginia in collecting any past due amount.

FEE SCHEDULE

Effective July 1, 2011



REZONIN	١G
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a) b)	Amendments to the zoning ordinance
BOAL	RD OF ZONING APPEALS
	Variances
SUBD	IVISION
a)b)c)d)	Preliminary Plat – No Variance Request. \$175.00 plus \$20.00 per lot Preliminary Plat – Variance Request. \$200.00 plus \$20.00 per lot Final Plat. \$150.00 plus \$20.00 per lot Minor Subdivision Plat. \$150.00 plus \$20.00 per lot
SPEC	IAL USE PERMITS
a)	Application fees\$375.00 plus \$30.00 per acre
SITE	<u>PLANS</u>
a) b) c)	Site Plan for new commercial, industrial & institutional site\$300.00 plus \$25.00 per acre Site Plan for new multi-family residential & all other residential\$400.00 plus 10.00 per dwelling unit Resubmittal of plan with minor revision\$100.00
d)	Resubmittal of Withheld Site PlanSame as (a) above
<u>ADMI</u>	NISTRATIVE
a)	Sign Permits\$50.00 for up to first \$1000 value of sign \$20.00 for each additional \$1000 value of sign
b)	or portion thereafter plus 2% state levy tax Zoning Comfort or Verification Letter (requiring research)\$50.00
EROS	ION CONTROL PLANS
a) b) c)	10,000 square feet to 1 acre\$300.00 per request Each additional acre or part of an acre\$50.00 per request Resubmittal of rejected plan

DRAFT FEE SCHEDULE PROPOSED

To Be Effective July 1, 2014

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a) Amendments to the zoning ordinance	
BOARD OF ZONING APPEALS	
a) Variances	
SUBDIVISION	
a) Preliminary Plat – No Variance Request. \$175.00 plus \$20.00 per lot b) Preliminary Plat – Variance Request \$200.00 plus \$20.00 per lot c) Final Plat \$150.00 plus \$20.00 per lot d) Minor Subdivision Plat \$150.00 plus \$20.00 per lot	t t
SPECIAL USE PERMITS	
a) Application fees	Э
SITE PLANS	
a) Site Plan for new commercial, industrial & institutional site\$300.00 plus \$25.00 per acr b) Site Plan for new multi-family residential & all other residential\$400.00 plus 10.00 per dwelling uni c) Resubmittal of plan requiring minor revisions\$100.0	it
d) Resubmittal of Withheld Site Plan\$300.0	
ADMINISTRATIVE	
a) Sign Permits\$50.00 for up to first \$1000 value of sign \$20.00 for each additional \$1000 value of sign or portion thereafter plus 2% state levy tax	
b) Zoning Comfort or Verification Letter (requiring research)\$50.00)
EROSION CONTROL PLANS	
a) 10,000 square feet to 1 acre	
COLORADA AND A CARL CORRESPONDED TO A CARL CO	

STORMWATER MANAGEMENT PLANS

(See separate fee schedule)

EXCERPTS FROM CITY OF HARRISONBURG DESIGN + CONSTRUCTION STANDARDS MANUAL

2.4 Erosion and Sediment Control

(2.4.1) General

REVISIONS PROPOSED FOR SWM PROGRAM 7/1/14

- (2.4.1.1) All Erosion and Sediment Control plans shall be prepared such that, as a minimum, the requirements and Minimum Standards of the <u>Virginia Erosion and Sediment Control Regulations</u> are met.
- (2.4.1.2) The <u>Virginia Erosion and Sediment Control Handbook</u>, most recent edition, hereinafter referred to as the "E & S Handbook," shall be used as the guideline for preparation of such plans. The checklists for the plan and accompanying narrative included in the E & S Handbook shall be completed and submitted with the plans.
- (2.4.1.3) In general, erosion control plans shall be prepared on a separate plan sheet, complete with all supporting notes and details. For development plans that indicate disturbance of less than two acres, the erosion control measures and notes may be included on the site plan sheet. However, all checklist items of the E & S Handbook shall be noted on the plans or on supplementary drawings to be included with the narrative submission.
- (2.4.1.4) For plans that contain a separate narrative the plans shall contain a note that directs the contractor to comply with any additional requirements contained in the narrative.
- (2.4.1.5) All erosion and sediment control plans shall have affixed to them, verbatim, Minimum Standards numbers 1, 2, 4, 5, 16, 17, and 18 of the <u>Virginia Erosion and Sediment Control Regulations</u>.
- (2.4.1.6) All erosion control measures shall meet or exceed those detailed in the Virginia Erosion & Sediment Control Handbook.
- (2.4.1.7) The time of year has no bearing on the applicability of site stabilization requirements in the Minimum Standards. Plans for projects that will be worked through the winter months shall contain adequate specifications for temporary or permanent winter seeding.
- (2.4.1.8)—Developments which disturb less than 10,000 square feet of land, and which are exempted from the requirement of an erosion and sediment control plan, shall not be issued a building or land disturbing permit until the responsible party submits, with the building permit application, an executed "Agreement in Lieu of an Erosion Control Plan" form, available from the Building Inspection and City Engineering offices.
- (2.4.1.98) Seeding specifications shall be included on plans.

(2.4.1.109) Any approved variances to State standards shall be clearly noted on plans.

(2.4.2) Minimum Standard 19 - Stormwater Detention

(2.4.2.1) Calculations for Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations, which address all requirements therein, shall be performed and two copies submitted with the plans for review. Calculation package shall include a narrative that explains the basis of the design and how it meets the standards, as well as providing a guideline for the reviewer to follow (explanation of hydrographs, routings, lagging, drainage areas, outlet structure data, etc.). Compliance with the water quantity provisions of the VA Stormwater Management Regulations shall be considered to meet MS-19.

Any runoff from a development which drains to an existing sinkhole, whether on-site or off-site, shall be detained to pre-development rates, for the two-year and ten-year storms, considered individually, regardless of any other considerations such as outfall adequacy, distance to sinkhole, etc. Pre-development hydrology must be duplicated as closely as possible. Construction of detention facilities or site grading shall be sequenced such that no increase in flow to sinkholes occurs during construction.

- (2.4.2.2) Calculations for channel adequacy shall be carried downstream of the proposed development for a minimum distance of 300 feet beyond the subject property, and shall continue until the flow is discharged into a natural watercourse of sufficient capacity to convey the two-year storm event without overtopping or eroding its banks. A natural watercourse is hereby defined as a watercourse, which is indicated by a blue line on a USGS 7.5 minute series topographic map.
- (2.4.2.3) Pre-development and post-development runoff rates shall be verified by calculations that are consistent with good engineering practices and are acceptable to the City Erosion and Sediment Control Administrator. For purposes of computing runoff, all lands in the site shall be assumed prior to development to be in good condition (if the lands are pastures, lawns or parks), with good cover (if the lands are woods), or with conservation treatment (if the lands are cultivated) regardless of conditions existing at the time of computation. Porous pavement shall be considered as standard pavement when computing runoff, unless considered part of a stormwater BMP covered under a BMP Maintenance Agreement.
- (2.4.2.4) Design of stormwater conveyance channels and verification of channel adequacy shall be performed in accordance with Chapter 5 of the E & S Handbookthe water quantity provisions of the VA Stormwater Management Regulations.

(2.4.2.5) Verification of detention pond capacity shall be performed in accordance with SCS methods, or using Modified Rational Method (per City guidelines) to produce critical volume storm. Calculations shall show compliance with the water quantity provisions of the VA Stormwater Management Regulations.

(2.4.2.5.1) Calculations shall show pond to be of adequate capacity and with discharge less than allowable for both the peak storm and the critical volume storm. When detaining to the ten-year predeveloped flow per M.S. 19, the two-year storm shall be subject to these same requirements on an individual basis.

(2.4.2.5.21) Calculations shall include hand or computer-generated reservoir routings of all design storms analyzed. Validation of the source and methodology for all computer programs used in the calculations shall be submitted and approved by the City Erosion and Sediment Control Administrator.

(2.4.2.6) Detention basin outlets shall discharge into a natural or man-made conveyance system or channel. Basin outflow shall be limited to the maximum rate which maintains the adequacy of the channel, or the outflow shall be detained to the pre-development rate of flow to the specific point of concentrated discharge, not the pre-developed flow from the entire drainage area. If a channel does not exist at the point of discharge, then one shall be constructed to convey the drainage to a stable outlet. Any such channel constructed off the site will require an appropriate private drainage easement.

Where natural or other open receiving channel is in poor condition, applicant must look first to make downstream channel improvements before settling on detention. If property owner agrees, then applicant must balance improved channel capacity with on-site detention. Detention alone will be accepted only after documentation is provided that downstream owner would not agree to channel improvements. If downstream channel is not improved, then Q1 extended detention must be implemented per Virginia Stormwater Management Handbook, most recent edition, standards.

Downstream channel will be considered poor if ill-defined, eroded, has a capacity less than needed to prevent flooding or other property damage, or is proximate to an existing building to where deterioration or overtopping could cause building flooding. Such will be determined based on site visit prior to or during plan review by the City Engineer or his designated agent. Designer is encouraged to arrange with the City Engineer to visit the downstream site prior to design to confirm the condition and subsequent design requirements.

(2.4.2.7) Minimum conduit diameter for basin outlets shall be 12 inches. Basins requiring a lesser orifice size for flow control shall be provided with a

manhole structure fitted with the required orifice. For smaller basins, it may be acceptable on a case-by-case basis for the orifice to be provided within a sealed plug attached to the end of the pipe outlet. Above ground basins shall be provided with low flow channels capable of conveying initial inflow to the control structure without eroding the basin sides or bottom.

- (2.4.2.8) All above-ground detention facilities shall be designed to pass the 100-year storm without overtopping with a minimum of one foot of free board between the 100-year elevation and the top of the structure. Sites designed with underground detention facilities shall be provided with a means of conveying the 100-year storm to a stable outlet without damage to structures, embankments, adjacent properties and other critical installations and without causing erosion.
- (2.4.2.9) Underground detention systems shall be designed and constructed using VDOT approved storm drainage pipe. Adequate access structures (per VDOT) shall be provided for all pipelines within the system for the purpose of maintenance. Underground stone-filled trench systems will not be allowed. Prefabricated, buried storage systems may be accepted on a case-by-case basis. Such systems must be fully accessible for maintenance and cleaning. Certain systems may require manufacturer's observation and certification of proper installation.
- (2.4.2.10) Infiltration systems will be considered for review only if a soils and geo-technical report is provided which discusses soil permeability, potential effects on ground water and potential effects on underlying geologic strata. System design shall provide for a 24-hour drawdown of the entire storage volume. Porous pavement will not be considered as an infiltration media.
- (2.4.2.11) Design of above-ground stormwater detention or retention basins greater than ten feet high, measured from the top of the embankment to the lowest point along the toe of embankment, shall be accompanied by a Geotechnical report prepared by a Geotechnical engineer licensed to practice in Virginia. Such report shall contain recommendations for subgrade preparation, core trenching embankment construction, spillway construction, anti-seep collars and other significant factors, all of which shall be incorporated into the design of the facility.
- (2.4.2.12) All above ground earth dam detention facilities shall include an emergency spillway capable of conveying the 100-year storm flow, assuming any other principal spillway is blocked. Emergency spillways shall be constructed in cut sections of previously existing ground unless structural measures such as riprap or concrete are provided to protect the pond embankment from eroding. Consideration shall be given to providing even

greater emergency spillway capacity in critical areas or where public safety is threatened by embankment failure.

- (2.4.2.13) Safety measures should be incorporated into the design of all stormwater detention facilities. These may include, but are not limited to, safety ledges, fencing, warning signs, anti-vortex devices, stadia rod indicating depth at the lowest point, and outlet structures designed to limit public access. This is of particular importance in residential areas where children are present.
- (2.4.2.14) All stormwater detention and stormwater management facilities shall be covered under a Stormwater Management/BMP Facilities Maintenance Agreement (Appendix I). Recordation of this Agreement, and delivery of a recorded copy to the City, is a prerequisite to obtaining a Land Disturbing Permit. Plans shall denote a "BMP Area Boundary" around the facilities. This area shall also be denoted on all final plats. Such area shall extend beyond the limits of the facilities a sufficient distance to accommodate maintenance equipment. Plans shall include a completed table as per City DWG No. 2.5.1.5 "BMP Table".
- (2.4.2.15) For projects including a stormwater detention or retention facility, the plans or narrative shall include information regarding short and long-term maintenance required to assure perpetual operation of the facility, and shall set forth the person(s) or parties responsible for such maintenance.

(2.4.3) Site Grading

- (2.4.3.1) In general, sites shall be graded to provide adequate drainage and prevent erosion.
- (2.4.3.2) Minimum slope for lawn areas shall be one percent, with two percent minimum preferred.
- (2.4.3.3) Maximum slope for grass embankments shall be 2H:1V horizontal to vertical. Embankments steeper than 2H:1V will be considered by the City on a case-by-case basis. Slopes steeper than 2H:1V shall be stabilized by structural means such as riprap, waffle blocks, stabilization matting or other accepted methods. A written statement from the owner of the property stating awareness of slopes steeper than 2H:1V and claiming responsibility for their stability and continued maintenance shall be submitted before the plans will be accepted for construction. In no case shall earthen slopes steeper than 2H:1V be allowed which encroach into a 2H:1V plane extending from the right-of-way line into the property.

2.5 Stormwater Management

(2.5.1) Plans

- (2.5.1.1) Stormwater Management plans shall be prepared and submitted for all projects with a land disturbance of one acre or more. Such plans may be included in a broader site plan set, but must be on a separate sheet(s) in order to adequately identify control measures and their corresponding details and special conditions.
- (2.5.1.1.1) Lots smaller Projects with land disturbance less than one acre, though and part of an overall a common plan of development greater than one acre, shall be subject to the requirements of this section, unless the development of such lots is covered by an approved and bonded overall stormwater management plan. This is applicable to lots within a subdivision or individual phases of a larger project. In general, the requirements herein shall be waived for individual lot single family home construction, within or outside of a common plan of development, disturbing less than five acres of land. Applicants for such projects shall execute with the city an "Agreement in Lieu of a Stormwater Management Plan", and shall pay the applicable fees and post a bond prior to receiving a building permit. Applications for a building permit on such projects on lots that contain an established stormwater best management practice shall include a detailed grading plan sufficient to show continued function of such practice(s) per its (their) original design.
- (2.5.1.2) Plans and calculations shall be developed and performed in accordance with the Virginia Stormwater Management Handbook ("SWM Handbook"), latest edition as available from VADCR/VADEQ and submitted for review per the City's plan review policy. The runoff reduction method spreadsheet shall be used to calculate runoff rates and BMP pollutant removal. Additional requirements are set forth in the Virginia Stormwater Management Regulations and in the City Stormwater Management Ordinance.
- (2.5.1.3) Designers are encouraged to select Best Management Practices (BMPs) that are easily maintained. Selection of multiple BMPs serving smaller areas is recommended over one large BMP to serve an entire development. Plans shall denote a "BMP Area Boundary" around the facilities. This area shall also be denoted on all final plats. Such area shall extend beyond the limits of the facilities a sufficient distance to accommodate maintenance equipment.
- (2.5.1.4) Plans shall include detailed information on BMP components, construction specifications, dimensions, plant selection, bed preparation, maintenance and long-term care as necessary to ensure adequate initial

installation and to provide for longevity. Maintenance information shall be adequate to be included in an owner's or association's records for their use in maintaining the facilities.

- (2.5.1.5) Plans shall include a completed table as per City DWG No. 2.5.1.5 "BMP Table".
- (2.5.1.6) Plan submission shall include for review and approval a project Pollution Prevention Plan, prepared in accordance with the VA Stormwater Management Regulations and the City Stormwater Management Ordinance. City standard notes addressing pollution prevention shall be included on the stormwater management plan.

(2.5.2) Bonding and Permitting

The following additional conditions shall be met before a Land Disturbing Permit will be issued:

- (2.5.2.1) All BMPs shall be bonded, with bond price per City's standard unit prices. Any BMP not in the standard list shall be priced appropriately and included in bond.
- (2.5.2.2) The developer will be responsible for providing evidence that they have obtained or applied for coverage under DCR's a VPDES Stormwater Permit for Construction Sites. If the Permit is not yet available, a copy of the completed, executed application forms required by DCR will suffice.
- (2.5.2.3) The City will require a copy of the project's Stormwater Pollution Prevention Plan (SWPPP) prepared for the VPDES Permit. Later revisions to the SWPPP should be forwarded to the City.

(2.5.3) BMP Maintenance Agreement

- (2.5.3.1) All stormwater detention and stormwater management facilities shall be covered under a Stormwater Management/BMP Facilities Maintenance Agreement (Appendix I). Recordation of this Agreement, and delivery of a recorded copy to the City, is a prerequisite to obtaining a Land Disturbing Permit or receiving Final Plat approval.
- (2.5.3.2) If other than owner, developer/builder is responsible for ensuring that the approved Stormwater Management plan is delivered to owner of the property, and that owner is instructed as to the responsibility of maintenance of all facilities included in the plan.
- (2.5.3.3) The Stormwater Management/BMP Facilities Maintenance Agreement binds the owner, its successors and assigns to perpetual

Project Name: _____

BMP	TABLE		
Type (see below)	Design Level (1 or 2)	Ac. Treated	HUC
THIS DWG.	DEVISED	TO DEE	1507
/ IAID DWG.	CLVIOLD	1º KEP	
NEW BMP DESIGN	ATTONS AND	TO ADD	
	•		
A POLLUTANT REMOVA	AL NUMBE	RS	
Pollutant Removal Achieved (lb/yr.)			
Pollutant Removal Required (lb/yr.)			
Excess Pollutant Removal (if any) (lb/yr.	.)		

Types (per Virginia BMP Clearinghouse):

- Rooftop Disconnection
- 2. Sheetflow to Veg. Filter/Open Space
- 3. Grass Channel
- 4. Soil Amendments
- 5. Vegetated Roof
- 6. Rainwater Harvesting
- 7. Permeable Pavement
- 8. Infiltration
- 9. Bioretention
- 10. Urban BioRetention
- Dry Swale 11.
- Wet Swale 12.
- 13. Constructed Wetland
- Wet Pond 14.
- 15. Extended Detention Pond
- Other (list separately) 16.

Hydrological Unit Codes (HUC):

PS22 - Blacks Run

PS23 - Cooks Creek

PS26 — Congers Creek PS33 — Cub Run

PS56 - Linville Creek

PS59 - Dry Fork

Note: All waters above are either impaired

or discharges to impaired waters.

Note: Table required for all projects with a stormwater management plan.

		REVISIONS			DWG. N□.
NO.	DATE	DESCRIPTION	INIT.		2.5.1.5
1	4/29/09	Unit Codes	DLC	BMP TABLE	
^2	7/1/14	Per SWM Ordinance	DR	Divin Ander	PAGE
<u></u>				PROPOSED	
			<u> </u>	1 KU U JED	

maintenance of all BMPs. Appendix J "Stormwater BMP Post-Construction Inspection Policy" discusses the procedures and requirements for annual inspections called for in the Agreement. Appendix J includes the required "Annual Inspection Form for Stormwater BMPs". BMPs must be inspected by a licensed engineer every three years. (THIS SECTION SUBJECT TO CHANGE BASED ON VASWM REGULATIONS. INSPECTION FREQUENCY MIGHT BE REDUCED TO 5 YEARS)

(2.5.4) Certification of As-Built Facilities

- (2.5.4.1) Prior to release of the bond, the developer will be required to provide to the City the BMP AS-BUILT CERTIFICATION, DWG. NO. 2.5.4.1. This is a certification statement from a licensed engineer that all BMPs were properly installed and/or constructed per the approved plan and per any manufacturer's recommendations. This Certification shall be accompanied by As-Built Drawings, signed and sealed by a VA professional engineer.
- (2.5.4.2) Engineer is expected to provide the onsite observation needed to provide such certification. Contractor shall coordinate the work with the engineer to ensure observation of critical, and particularly below grade, components. Plans should include a construction period inspection schedule to allow engineer to view certain stages of BMP construction before previous items are covered up.
- (2.5.4.3) Plans shall contain a note clearly stating that this certification <u>and</u> as-built documentation is required prior to bond release.

BMP AS-BUILT CER	TIFICATION
Project Name (as it appears on approved plans):	
As-Built conditions field verified on:	
Certification Statement:	
Based upon construction-period and post-construction observation of the above named project, I certify that all structural and non-general conformance with the requirements and specifications drawings, approved design documents, manufacturers installated that the facilities should function as intended by the original dipatterns on the site, including the disposition of roof drainage, are in general conformance with the approved plans.	-structural stormwater management BMP facilities are in of the facility as described in the approved construction on instructions and/or any approved modifications, and esign. Further, I have observed the stormwater runoff
The attached, sealed Record Drawings reflect the final, installed any deviations from the approved plans. I further certify that the Record Drawings and has been advised of his/her/their respons for BMP maintenance per the BMP Maintenance Agreement.	ne Owner/Developer has been provided a copy of these
* THIS DWG. REVISED FOR RECORD DRAW	INGS
Signature:	
Print Name:	
Note: This certification statement must be executed by a redesign and construction or operation of stormwater BMP's of certification. Engineer is advised to consult the Virginia Stormchecklists on various facilities.	a nature similar in scope to that certified to in this
REVISIONS DECORPTION LINE	DWG. NO
NO. DATE DESCRIPTION INIT 1 7/1/14 Add record dwg reg'ts. DR	BMP AS-BUILT 2.5.4.1 INSPECTION
(-00-00-00	CERTIFICATION

C-PROPOSED

7/1/14 Draft revisions noted

CITY OF HARRISONBURG, VA DESIGN & CONSTRUCTION STANDARDS MANUAL

APPENDIX I

STORMWATER MANAGEMENT/BMP FACILITIES MAINTENANCE AGREEMENTS

Procedures for Submitting Agreements

- Agreements are submitted to the City of Harrisonburg, Department of Planning & Community Development, 409 S. Main Street, Harrisonburg, Virginia 22801.
- Obtain <u>original</u> agreement from the Department of Planning & Community Development or from the City's Design Construction Standards Manual (DCSM).
- Type all information on form.
- Submit draft agreement with exhibit(s) for City review prior to signature.

Following approval:

- Sign form in black ink,
- Signature must be properly notarized (black ink).
- If the Landowner is a corporation, partnership, trust, limited liability company, etc., provide official/legal documentation that the person signing is authorized to sign legal/contractual documents for the organization.
- Record agreement in County Clerk's office and provide copy of stamped document to City.

CITY OF HARRISONBURG, VA

STORMWATER MANAGEMENT/BMP FACILITIES MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this day of,, by and between hereinafter called the
and between hereinafter called the
(Insert Full Name of Owner) "Landowner", and the City of Harrisonburg, a Virginia municipal corporation, hereinafter called the "City".
WITNESSETH:
WHEREAS, the Landowner is the owner of certain real property described as City of
Harrisonburg Tax Map/Parcel as recorded by deed in the land records of Rockingham County, Virginia, Deed Book/Page,
records of Rockingham County, Virginia, Deed Book/Page,
hereinafter called the "Property".
WHEREAS, the Landowner is proceeding to build on and develop the property; and
WHEREAS, the Site Plan/Subdivision Plan known as,,
prepared by and dated, hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be
approved by the City, provides for Best Management Practices (BMPs) for detention and/or
treatment of stormwater within the confines of the property; and
WHEREAS, approximate locations of specific BMP facilities included on the Plan are
shown on the attached (indicate by x):
Copy of City-approved final subdivision plat, or
City-approved scaled exhibit drawing of property; and
WHEREAS, the City and the Landowner, its successors and assigns, including any homeowners association, agree that the health, safety, and welfare of the residents of City of Harrisonburg, Virginia, require that on-site stormwater management/BMP facilities be constructed and maintained on the Property; and WHEREAS, the City requires that on-site stormwater management/BMP facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns, including any homeowners association. NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows: 1. The on-site stormwater management/BMP facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan. 2. The Landowner, its successors and assigns, including any homeowners association, shall adequately maintain the stormwater management/BMP facilities. This includes all pipes and channels built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate
Project Name:

-1-

maintenance is herein defined as good working condition so that these facilities are performing their design functions. The <u>City's Annualrequired</u>-Inspection Report form(s) is(are) to be used to establish what good working condition is acceptable to the City.

- 3. The Landowner, its successors and assigns, shall inspect the stormwater management/BMP facility and submit an inspection report annually every five years by the method and date prescribed in the latest City's Design and Construction Standards Manual. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structure, pond areas, access roads, etc. Deficiencies shall be noted in the inspection report.
- 4. The Landowner, its successors and assigns, hereby grant permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the stormwater management/BMP facilities whenever the City deems necessary. The purpose of inspection is to follow-up on reported deficiencies and/or to respond to citizen complaints. The City shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence with the repairs if necessary.
- 5. In the event the Landowner, its successors and assigns, fails to maintain the stormwater management/BMP facilities in good working condition acceptable to the City, the City may, after proper notice, enter upon the Property and take whatever steps necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner, its successors and assigns. The City shall allow Landowner 60-90 days to make necessary repairs before taking this action; however, for large scale repair work the City may, on a case-by-case basis, allow the Landowner to present for consideration an Action Plan and schedule for repairs. In such cases the City may require a bond, letter of credit, cash escrow or other acceptable surety to guarantee the work. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.
- 6. The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. A maintenance schedule should follow those prescribed in the Plan, along with any recommendations included in the City's Design and Construction Standards Manual, manufacturers' guidelines, etc. This schedule shall be followed by the landowner, its successors and assigns.
- 7. In the event the City pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner, its successors and assigns, shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder. This shall include costs which exceed those obtained through a surety provided in association with an Action Plan as described in Item 5 above.
- 8. Landowner, by execution of this Agreement, acknowledges that he/she has reviewed with the Engineer the specifics of the Plan and understands the function and maintenance requirements of all BMPs provided for on the Plan. Landowner agrees to maintain a copy of the Plan through the duration of ownership, and to transfer that plan to the new owner upon relinquishing the property.

Project Name:			

- 9. This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless from any liability in the event the stormwater management/BMP facilities fail to operate properly.
- 10. This Agreement shall be recorded among the land records in the Clerk's Office of the Circuit Court of Rockingham County, Virginia, and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, heirs and any other successors and assigns in interests, including any homeowners association.
 - 11. This agreement shall be governed by the laws of the Commonwealth of Virginia.
- 12. Any disputes arising from or as a result of this Agreement shall be resolved in the Circuit Court of Rockingham County, Virginia.
- 13. If any provision of this Agreement is found to be illegal, invalid, or unenforceable, that shall not affect the validity or enforceability of any other provision of this agreement.

Project Name:	_	
	-3-	

WITNESS the follow	ving signatures and seals:	
	Company/Corporation/Partnership Name By:	
	(Type Name)	
	(Type Title)	
STATE OFCITY/COUNTY OF		
The foregoing	Agreement was acknowledged before me this day of ,	
	NOTARY PUBLIC	
My Commission Exp	ires:	
My Commission No.	is:	
		*
Project Name:		

CITY OF HARRISONBURG, VIRGINIA

E	By:		
	By: Kurt D. Hodgen		
I	ts: City Manager		
STATE OF CITY/COUNTY OF The foregoing A, by Kurt D. Hodg	Agreement was acknowled gen, City Manager.	lged before me this day _	of
My Commission Expire	NOT	ΓARY PUBLIC	
iviy Commission ivo. is.			
Approved as to Form:			
City Attorney	Date	_	
Project Name:			

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City of Harrisonburg, VA

Design & Construction Standards Manual

Appendix J

Stormwater BMP Post-Construction Inspection Policy

Property owners are expected to maintain all stormwater BMPs in good working condition, functional per original design intent. Owners should seek out the assistance of landscape, engineering and biology professionals as appropriate to assess the condition and function of BMPs. Owners are encouraged to establish a regular program for such maintenance, based on specific needs for specific facilities. This may help to avoid costly repairs that could have been avoided by consistent, regular maintenance.

Owner is cautioned that the function of certain BMPs may be dependent upon other features of the original site design. For example, changes to ground character from re-grading, added impervious areas, redirection of roof runoff, etc. may change the effectiveness of the original stormwater facilities.

As outlined in the Stormwater Management BMP Facilities Maintenance Agreement, the property owner is responsible for conducting annual regular inspections of their BMP(s) every five years and submitting a report to the Department of Public Works (Annual Inspection Form attached) Community Development. Inspection forms to be used are those in Appendix 9C of the VA Stormwater Management Handbook.

The reports shall be submitted to the <u>Public Works</u>-Department <u>of Community Development</u> by July 1 of <u>each the inspection</u> year, no earlier than 60 days prior. A separate report is required for each BMP covered under the project's approved Stormwater Management Plan.

Every three-five years, the property owner will be required to have a professional engineer certify that the BMP is functioning properly and as designed. The professional engineer shall submit the Annual-Inspection Form and use it as guidance, but it is expected that a complete inspection of the stormwater BMPs' condition be conducted. This should include assessment of underground systems, filter media, infiltration capabilities, vegetation condition and coverage, etc. A supplemental narrative may be necessary to complete a full assessment.

Should either the owner's or engineer's inspection find that maintenance is needed, the property owner will have 60 days from the date of inspection to complete maintenance and inform the Public Works-Department of Community Development that work is complete and a re-inspection may be needed. Additional time may be granted by the Director of Community Development Public Works or designee on a case-by-case basis per the terms of the BMP Maintenance Agreement.

Each year, Public Works Department staff will conduct "spot" checks of stormwater BMPs to ensure compliance. At minimum, 1/3 of all BMPs will be spot checked each year by Public Works staff. Should a BMP be found by Public Works staff to require maintenance, a letter will

be sent to the property owner and follow up will be requested. The letter will detail the deficiencies found. Should the property owner fail to maintain the Stormwater BMP, enforcement actions may be taken by the City of Harrisonburg per the terms of the BMP Maintenance Agreement.

ANNUAL INSPECTION FORM FOR STORMWATER BMPS

City of Harrisonburg Dept. of Public-Works
320 E. Mosby-Road
Harrisonburg, VA 22801
Phone: (540) 434-5928 Fax: (540) 434-2695

This form is for use with stormwater BMPs that have a Stormwater Management/BMP-Facilities Maintenance Agreement filed at Rockingham County Clerk of Court-Office, per the City of Harrisonburg's Design & Construction Standards Manual. Such Agreement requires Annual Inspection of Stormwater BMPs. The Manual's Appendix J, "Stormwater BMP-Post-Construction Inspection Policy", discusses required procedures.

Routine self-inspection of your BMP is the best way to catch potential problems before they become a liability. Inspectors should review the maintenance and operation notes included in the project's approved Stormwater Management Plan "Plan" for specific details.

Property Owner Information:			
Name:			
Address.			
Phone: Fax			
Email:			
Stormwater-BMP Information: (separate f	orm required for each individual BMP)		
Address of BMP:			
Tax Map Number:			
Type of BMP (check one):			
☐ Earthen Embankment	Detention Basin		Other (describe)
□ Principal Spillway	Constructed Wetlands		
□ Vegetated Emergency	☐ Infiltration Practices		Manufactured-BMP
Spillway	□ Bio Retention		System. Product Name:
Sediment Forebay	Sand Filters		
Landscaping	☐ Grassed Swale		
□ Retention Basins	□ Vegetated Filter Strip		
Extended Detention Basin	Level-Spreader		
Inspector-Information:			
Name:			
Address:			
Phone: Fax	<u> </u>		
Email:			
Is this inspection certified by a Professiona			
If Yes, PE license number:			
If No, when was your last PE cert	ified inspection? (Required every three years	s)-Month	Year
Date of Inspection:			
Recent Weather Conditions:			

Note: Underground stormwater BMPs that have enclosed subsurface structures are considered confined spaces and have specific safety requirements by the Occupational Safety and Health Administration (OSHA) that should be heeded when inspecting or maintaining your system.

Description of the BMP condition:			
	YES	Q /4	NA
STRUCTURAL INTEGRITY			
Does the facility show signs of settling, cracking, bulging, misalignment or other			
structural deterioration?			
Do the embankments, emergency spillways, side slopes or inlet/outlet structures show			
sign of erosion?			
Is the outlet pipe damaged or not functioning properly?			
Do the impoundment and inlet areas show erosion, low spots, or lack of stabilization?			
Is woody vegetation (trees or saplings) that may interfere with the facility's			
performance present on the banks?			
Is there evidence of animal burrows?			
Are contributing areas unstabilized with evidence of erosion?			
Do vegetated areas need mowing or is there build up of clippings that could clog the			
facility?			
WORKING CONDITIONS			
	<u> </u>		
Does the depth of sediment pose a threat to storage volume?			
Is there standing water in inappropriate areas, such as on filters or cartridges after a dry			
period?	1		
Is there accumulation of floating debris and/or trash?			
OTHER INSPECTION ITEMS			
Is there evidence of encroachment or improper use of impounded areas?			
Are there signs of vandalism?			
Do any safety devices such as fences, gates or locks need repair?			
Is there excessive algae growth, or has one type of vegetation taken over the facility?	l .		
Is there evidence of oil, grease, or other automotive fluids entering and clogging the			
facility?	J	J	
In raingardens, is there evidence of soil erosion, does mulch cover the entire area, are			
specified number and types of plants still in place, or is there evidence of disease of			
plant stress from inadequate or too much watering?			
Additional Comments:			
If you answered YES to any of the above questions, maintenance of your facility is require	d. What m	aintenance o	r repairs have
been/ will be performed? (If you cannot answer this question at this time, please notify the			
of your plans for maintenance within 15 days.)		,	
5. Jour Plante (5. 1) and 5. (6. (6. (6. (6. (6. (6. (6. (6. (6. (6			
When will repair or maintenance of this BMP be completed? (Required within 60 days)			
Which will repair of Hamiltoniance of this site se completed, (hegained within oo days)			
Additional comments:			
Additionar comments.			
I, the undersigned, hereby certify that the information presented above, to the best of my	knowleda	o ic accurata	and that I
believe the identified stormwater BMP is in proper working order.	MIOWICUG	2, 15 accarate	ana mut i
Delic ve the lucitifica Stormwater Divir is in proper working araci.			
Signature of Inspector: Date:			
Signature of Inspector: Date:			
Organization Name			
Organization Name:			