Introduced by: Councilmember Snipper

First Reading: May 3, 2010 Second Reading: May 10, 2010 Effective Date: May 11, 2010

#### CITY OF TAKOMA PARK, MARYLAND

# ORDINANCE NO. 2010-20 AMENDING TAKOMA PARK CODE CHAPTER 16.04 STORMWATER MANAGEMENT

WHEREAS, the City of Takoma Park adopted its Stormwater Management Ordinance to protect, maintain and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased stormwater runoff within the City; and

WHEREAS, the Stormwater Management Ordinance addresses stormwater management controls required for new construction or redevelopment of existing residential, commercial, institutional or industrial sites; and

WHEREAS, the State of Maryland reviewed the City's revised Stormwater Management Ordinance adopted April 12, 2010 and requested several minor technical changes.

# NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF TAKOMA PARK, MARYLAND:

**SECTION 1.** Chapter 16.04, Stormwater Management, of the *Takoma Park Code* is amended as follows:

16.04.010 Title.

The provisions of this chapter shall be known as the "Stormwater Management Ordinance of the City of Takoma Park" (hereinafter "chapter").

6.04.020 Purpose and authority.

A. The purpose of this chapter is to protect, maintain and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased stormwater runoff within the City. The goal is to manage stormwater by using environmental site design (ESD) to the maximum extent practicable (MEP) to maintain after development as nearly as possible, the predevelopment runoff characteristics, and to reduce stream channel erosion, pollution, siltation and sedimentation, and local flooding, and use appropriate structural best management practices (BMPs) only when necessary. This will restore, enhance, and maintain the chemical, physical, and biological integrity of streams, minimize damage to public and private property, and reduce the impacts of land development.

- B. The provisions of this chapter are adopted pursuant to the Environmental Article, Title 4, Subtitle 2, Annotated Code of Maryland 2009 replacement volume, as amended, are adopted under the authority of Takoma Park Code, and shall apply to all development occurring within the City.
- C. The application of this chapter and the provisions expressed herein shall be the minimum stormwater management requirements and shall not be deemed a limitation of any authority or repeal of any other powers granted to the City by State statute. The City Department of Public Works shall be responsible for the coordination and enforcement of the provisions of this chapter. This chapter, as amended, applies to all new and redevelopment projects that have not received final approval for erosion and sediment control and stormwater management plans by May 4, 2010.

16.04.030 Incorporation by reference.

For the purpose of this chapter, the following documents are incorporated by reference:

- A. The 2000 Maryland Stormwater Design Manual, Volumes I & II (Maryland Department of the Environment, April 2000) and all subsequent revisions, is incorporated by reference by the City and shall serve as the official guide for stormwater principles, methods, and practices.
- B. USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 378 (January 2000).

16.04.040 Definitions.

For the purposes of this chapter, the following words and phrases shall have the meanings indicated:

"Administration" means the Maryland Department of the Environment (MDE) Water Management Administration (WMA).

"Adverse impact" means any deleterious effect on waters or wetlands, including their quality, quantity, surface area, species composition, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property, to biological productivity, diversity, or stability or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

"Agricultural land management practices" means those methods and procedures used in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources.

"Applicant" means any person, firm or government agency who executes the necessary forms to procure official approval of a project or a permit to carry out construction of a project.

"Approving Agency" means the entity responsible for review and approval of stormwater management plans. The Approving Agency for the City is the Department of Public Works.

"Aquifer" means a porous water bearing geologic formation generally restricted to materials capable of yielding an appreciable supply of water.

"Best Management Practice (BMP)" means a structural device or nonstructural practice designed to temporarily store or treat stormwater runoff in order to mitigate flooding, reduce pollution, and provide other amenities.

"Channel Protection Storage Volume (Cpv)" means the volume used to design structural management practices to control stream channel erosion. Methods for calculating the channel protection storage volume are specified in the 2000 Maryland Stormwater Design Manual.

"City" means the off Takoma Park, Maryland.

"City Manager" means the City Manager for the City of Takoma Park or his or her designee.

"Clearing" means the removal of trees and brush from the land but shall not include the ordinary mowing of grass.

"Concept plan" means the first of three required plan approvals that includes the information necessary to allow an initial evaluation of a proposed project.

"Department" means the City of Takoma Park Department of Public Works.

"Design Manual" means the 2000 Maryland Stormwater Design Manual, and all subsequent revisions, that serves as the official guide for stormwater management principles, methods, and practices.

"Detention structure" means a permanent structure for the temporary storage of runoff, which is designed so as not to create a permanent pool of water.

"Develop land" means to change the runoff characteristics of a parcel of land in conjunction with residential, commercial, industrial or institutional construction or alteration.

"Development" means the process of changing the use of land, including the construction or alteration of buildings, structures or other improvements on the land.

"Drainage area" means that area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.

"Easement" means a grant or reservation by the owner of land for the use of such land by others for a specific purpose or purposes, and which must be included in the conveyance of land affected by such easement.

"Environmental site design (ESD)" means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrological runoff characteristics and minimize the impact of land development on water resources. Methods for designing ESD practices are specified in the Design Manual.

"Exemption" means those land development activities that are not subject to the stormwater management requirements contained in this chapter.

"Extended detention" means a stormwater design feature that provides gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events. Methods for designing extended detention BMPs are specified in the Design Manual.

"Extreme flood volume (Qf)" means the storage volume required to control those infrequent but large storm events in which overbank flows reach or exceed the boundaries of the 100-year floodplain.

"Final stormwater management plan" means the last of three required plan approvals that includes the information necessary to allow all approvals and permits to be issued by the approving agency.

"Flow attenuation" means prolonging the flow time of runoff to reduce the peak discharge.

"Grading" means any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled or any combination thereof.

"Impervious area" means any surface that does not allow stormwater to infiltrate into the ground.

"Infiltration" means the passage or movement of water into the soil surface.

"Maximum extent practicable (MEP)" means designing stormwater management systems so that all reasonable opportunities for using ESD planning techniques and treatment practices are exhausted and only where absolutely necessary, a structural 1 BMP is implemented.

"Maintenance" means any action necessary to preserve stormwater management facilities, both structural and non-structural, in proper working condition, in order to serve their intended purposes and to prevent failure of such facilities.

"Off-site stormwater management" means the design and construction of a facility necessary to control stormwater from more than one development.

"On-site stormwater management" means the design and construction of systems necessary to control stormwater within an immediate development.

"Overbank flood protection volume (Qp)" means the volume controlled by structural practices to prevent an increase in the frequency of out of bank flooding generated by development. Methods for calculating the overbank flood protection volume are specified in the Design Manual.

"Person" means the federal government, the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity.

"Planning techniques" means a combination of strategies employed early in project design to reduce the impact from development and to incorporate natural features into a stormwater management plan.

"Public Works Director" means the Director of the City of Takoma Park Department of Public Works or his or her designee.

"Recharge volume (Rev)" means that portion of the water quality volume used to maintain groundwater recharge rates at development sites. Methods for calculating the recharge volume are specified in the Design Manual.

"Redevelopment" means any construction, alteration, or improvement performed on sites where existing land use is commercial, industrial, institutional, or multifamily residential and existing site impervious area exceeds 40 percent..

"Retention structure" means a permanent structure that provides for the storage of runoff and is designed to maintain a permanent pool of water.

"Retrofitting" means the implementation of ESD practices, the construction of a structural BMP, or the modification of an existing structural BMP in a previously developed area to improve water quality over current conditions.

"Sediment" means soils or other surficial materials transported or deposited by the action of wind, water, ice or gravity as a product of erosion.

"Sediment and Erosion Control" means the Montgomery County Department of Sediment and Erosion Control.

"Site" means any tract, lot or parcel of land or combination of tracts, lots, or parcels of land, which are in one ownership, or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision, or project. For redevelopment, "site" also means the area of new construction or development as shown on an approved site development plan or on the original parcel. Final determination of the applicable area shall be made by the City.

"Site development plan" means the second of three required plan approvals that includes the information necessary to allow a detailed evaluation of a proposed project.

"Stabilization" means the prevention of soil movement by any of various vegetative and/or structural means.

"Stormwater" means water that originates from a precipitation event.

"Stormwater management system" means natural areas, ESD practices, stormwater management measures, and any other structure through which stormwater flows, infiltrates, or discharges from a site.

"Stripping" means any activity which removes the vegetative surface cover including tree removal, clearing, grubbing, and storage or removal of topsoil.

"Subdivision" means the division of a lot, tract or parcel of land into two or more lots, plots, sites, tracts parcels or other divisions by plat or deed.

"Variance" means the modification of the minimum stormwater management requirements for specific circumstances such that strict adherence to the requirements would result in unnecessary hardship and not fulfill the intent of this chapter.

"Waiver" means the reduction of stormwater management requirements by the Department City for a specific development on a case-by-case review basis.

"Watercourse" means any natural or artificial stream, river, creek, ditch, channel, canal, conduit, culvert, drain, waterway, gully, ravine or wash, in and including any adjacent area that is subject to inundation from overflow or flood water.

"Water quality volume (WQv)" means the volume needed to capture and treat the runoff from 90% of the average annual rainfall runoff volume at a development site. Methods for calculating the water quality volume are specified in the Design Manual.

"Watershed" means the total drainage area contributing runoff to a single point.

"Wetlands" means an area that has saturated soils or periodic high groundwater levels and vegetation adapted to wet conditions and periodic flooding.

16.04.050 Scope.

No person shall develop any land for residential, commercial, industrial, or institutional uses without having provided appropriate stormwater management measures that control or manage runoff from such developments, except as provided by this chapter. The stormwater management measures must be designed consistent with the Design Manual and constructed according to an approved plan for new development or the policies stated in Section 16.04.090 for redevelopment.

16.04.060 Exemptions from requirements.

The following development activities are exempt from the provisions of this chapter and the requirements of providing stormwater management:

- A. Agricultural land management activities;
- B. Additions or modifications to existing detached single-family residential structures\_ that do not disturb more than 5,000 square feet of land area.
- C . Land development activities which the Administration determines will be regulated under specific State and/or County laws, which provide for managing stormwater runoff and this determination is approved by the City Public Works Director.

16.04.070 Variances.

The <u>Public Works Director City</u> may grant a written variance from any requirement of Section 16.04.100. Minimum control requirements, of this chapter if there are exceptional circumstances applicable to the site such that strict adherence to the provisions of this chapter will result in unnecessary hardship and not fulfill the intent of this chapter.

- A. A written request for variance shall be provided to the Department City and shall state the specific variances sought and reasons for the granting of a variance.
- B. Department The City shall not grant a variance unless and until sufficient justification is provided by the person developing land that the implementation of ESD to the MEP has been investigated thoroughly.

## 16.04.080 Waivers/Watershed Management Plans

A. The Department City shall grant stormwater management quantitative control waivers only to those projects within areas where watershed management plans have been developed consistent with subsection F of this section. Written requests for quantitative stormwater management waivers shall be submitted that contain sufficient descriptions, drawings, and any other information that is necessary to demonstrate that ESD has been implemented to the MEP. A separate written waiver request shall be required in accordance with the provisions of this section if there are subsequent additions, extensions or modifications to a development receiving a waiver.

- B. If watershed management plans consistent with subsection F of this section have not been developed, stormwater management quantitative control waivers may be granted when the Department City determines that circumstances exist that prevent the reasonable implementation of quantity control practices-, provided that it has demonstrated that ESD has been implemented to the MEP:
- C. Stormwater management qualitative control waivers apply only to:

- 1. In-fill development projects where ESD has been implemented to the MEP and it has been demonstrated that other BMP's are not feasible;
- 2. Redevelopment projects if the requirements of Section 16.04.090 are satisfied; or
- 3. Sites where the <del>Department</del> <u>City</u> determines that circumstances exist that prevent the reasonable implementation of ESD to the MEP.
- D. Waivers shall only be granted when it has been demonstrated that ESD has been implemented to the MEP and must:
- 1. Be on a case-by-case basis;
- 2. Consider the cumulative effects of the Department City's waiver policy; and
- 3. Reasonably ensure the development will not adversely impact stream quality.
- E. If the City has established an overall watershed management plan for a specific watershed, then the <del>Department</del> City may develop quantitative waiver and redevelopment provisions that differ from section 16.040.080 B and section 16.04.090.
- F. A watershed management plan developed for the purpose of implementing different stormwater management policies for waivers and redevelopment shall:
- 1. Include detailed hydrologic and hydraulic analyses to determine hydrograph timing;
- 2. Evaluate both quantity and quality management and opportunities for ESD implementation;
- 3. Include cumulative impact assessment of current and proposed watershed development;
- 4. Identify existing flooding and receiving stream channel conditions;
- 5. Be conducted at a reasonable scale;
- 6. Specify where on-site or off-site quantitative and qualitative stormwater management practices are to be implemented;
- 7. Be consistent with the General Performance Standards for Stormwater Management in Maryland found in the Design Manual; and
- 8. Be approved by the Administration.

16.04.090 Redevelopment.

- A. Stormwater management plans are required by the City for all redevelopment, unless otherwise specified by watershed management plans developed according to section 16.04.080 F. Stormwater management measures must be consistent with the Design Manual.
- B. All redevelopment designs shall:
- 1. Reduce impervious area within the limit of disturbance (LOD) by at least 50 percent according to the Design Manual;
- 2. Implement ESD to the MEP to provide water quality treatment for at least 50 percent of the existing impervious area within the LOD; or
- 3. Use a combination of 1 and 2 above for at least 50 percent of the exiting site impervious area.
- C. Alternative stormwater management measures may be used to meet the requirements in section B 16.04.090 B if the owner/developer satisfactorily demonstrates to the Department City that impervious are reduction has been maximized and ESD has been implemented to the MEP. Alternative stormwater management measures include, but are not limited to:
- 1. An on-site structural BMP;
- 2. An off-site structural BMP to provide water quality treatment for an area equal to or greater than 50 percent of the existing impervious area; or;
- 3. A combination of impervious area reduction, ESD implementation, and an on-site or off-site structural BMP for an area equal to or greater than 50 percent of the existing site impervious area within the LOD.
- D. The City may develop separate policies for providing water quality treatment for redevelopment projects if the requirements of sections A and B cannot be met. Any separate redevelopment policy shall be reviewed and approved by the Administration. and may include, but not be limited to:
- 1. Retrofitting:
- 2. Stream restoration;
- 3. Pollution trading;
- 4. Design criteria based on watershed management plans developed according to Section 16.040.080 F; o5. Fees paid that are dedicated exclusively to provide stormwater management. E. Stormwater management shall be addressed according to the new development requirements in the Design Manual for any net increase in impervious area.
- 16.04.100 Stormwater management criteria--Minimum control requirements.

- A. The minimum control requirements established in this section and the Design Manual are as follows:
- 1. The Department-City requires that the planning techniques, nonstructural practices, and design methods specified in the Design Manual be used to implement ESD to MEP. The use of ESD planning techniques and treatment practices must be exhausted before any structural BMP is implemented. Stormwater management plans for development projects subject to this chapter shall be designed using ESD sizing criteria, recharge volume, water quality volume, and channel protection storage volume criteria according to the Design Manual. The MEP standard is met when channel stability is maintained, predevelopment groundwater recharge is replicated, nonpoint source pollution is minimized, and structural stormwater management practices are used only if determined to be absolutely necessary.
- 2. Control of the 2-year and 10-year frequency storm event is required according to the Design Manual and all subsequent revisions if the Department City determines that additional stormwater management is necessary because historical flooding problems exist and downstream floodplain development and conveyance system design cannot be controlled.
- 3. The Department City may require more than the minimum control requirements specified in this chapter if hydrologic or topographic conditions warrant or if flooding, stream channel erosion, or water quality problems exist downstream from a proposed project.
- B. Alternative minimum control requirements may be adopted subject to Administration approval. The Administration shall require a demonstration that alternative requirements will implement ESD to the MEP and control flood damages, accelerate stream erosion, water quality and sedimentation. Comprehensive watershed studies may also be required.
- C. Stormwater management and development plans where applicable, shall be consistent with adopted and approved watershed management plans or flood management plans as approved by the Administration in accordance with the Flood Hazard Management Act of 1976, as amended.
- 16.04.110 Stormwater management measures.
- A. ESD Planning Techniques and Practices.
- 1. The following planning techniques shall be applied according to the Design Manual to satisfy the applicable minimum control requirements established in section 16.04.100.
  - a. Preserving and protecting natural resources;
  - b. Conserving natural drainage patterns;
  - c. Minimize impervious area;
  - d. Reducing run-off volume;
  - e. Using ESD practices to maintain 100 percent of the annual predevelopment groundwater recharge volume;

- f. Using green roofs, permeable pavement, reinforced turf, and other alternative surfaces;
- g. Limiting soil disturbance, mass grading, and compaction;
- h. Clustering development; and
- i. Any practice approved by the Administration
- 2. The following ESD treatment practices shall be designed according to the Design Manual to satisfy the applicable minimum control requirements established in 16.04.100.
  - a. Disconnection of rooftop runoff;
  - b. Disconnection of non-rooftop runoff;
  - c. Sheetflow to conservation areas:
  - d. Rainwater harvesting;
  - e. Submerged gravel wetlands;
  - f. Landscape infiltration;
  - g. Infiltration berms;
  - h. Dry wells;
  - i. Micro-bioretention;
  - j. Rain gardens;
  - k. Swales;
  - 1. Enhanced filters; and
  - m. Any practices approved by the Administration
- 3. The use of ESD planning techniques and treatment practices specified in this section shall not conflict with existing State law or local ordinances, regulations, or policies.
- B. Structural Stormwater Management Measures.
- 1. The following structural stormwater management practices shall be designed according to the Design Manual to satisfy the applicable minimum control requirements established in Section 16.04.100:
- a. Stormwater management ponds;
- b. Stormwater management wetlands;
- c. Stormwater management infiltration;
- d. Stormwater management filtering systems: and
- e. Stormwater management open channel systems.
- 2. The performance criteria specified in the Design Manual with regard to general feasibility, conveyance, pretreatment, treatment and geometry, environment and landscaping, and maintenance shall be considered when selecting structural stormwater management practices.
- 3. Structural stormwater management practices shall be selected to accommodate the unique hydrologic or geologic regions of the City.
- C. ESD planning techniques and treatment practices and structural stormwater management measures used to satisfy the minimum requirements in section 16.04.120 must be recorded in the land records of Montgomery County and remain unaltered by subsequent property owners. Prior

approval from the <del>Department</del> <u>City</u> shall be obtained before any stormwater management practice is altered.

- D. Alternative ESD planning techniques and treatment practices and structural stormwater measures may be used for new development runoff control if they meet the performance criteria established in the Design Manual and all subsequent revisions and are approved by the Administration. Practices used for redevelopment projects shall be approved by the <u>Department City</u>.
- E. For the purposes of modifying the minimum control requirements or design criteria, the owner/developer shall submit to the Department City an analysis of the impacts of stormwater flows downstream in the watershed. The analysis shall include hydrologic and hydraulic calculations necessary to determine the impact of hydrograph timing modifications of the proposed development upon a dam, highway, structure, or natural point of restricted streamflow. The point of investigation is to be established with the concurrence of the Department City, downstream of the first downstream tributary whose drainage area equals or exceeds the contributing area to the project or stormwater management facility.

16.04.120 Specific design criteria.

The basic design criteria, methodologies, and construction specifications of stormwater systems subject to the approval of the Department City and the Administration, shall be those of the Design Manual.

16.04.130 Review and approval of stormwater management plans.

- A. For any proposed development, the owner/developer shall submit a phased stormwater management plans to the Department City for review and approval. At a minimum, plans shall be submitted for the concept, site development, and final stormwater management construction phases of the project design. Each plan submittal shall include the minimum content specified in section 16.04.140 and meet the requirements of the Design Manual and section 16.04.100.
- B. The Department City shall perform a comprehensive review of the stormwater management plans for each phase of site design. Coordinated comments will be provided for each plan phase that reflect input from all appropriate City Departments including, but not limited to Housing and Community Development and the City Arborist, and appropriate County or other agencies. All comments from the Departments and appropriate County or other agencies shall be addressed and approval received at each phase of the project design before subsequent submissions.
- C. At the site development and final stormwater management construction phases, the owner/developer is advised to submit the proposed plan for sediment and erosion control to the Montgomery County Department responsible for approving sediment and erosion control plans. Approval of sediment and erosion control plans is provided by Montgomery County.

# 16.04.140 Contents and Submission of Stormwater Management Plans

- A. The owner/developer shall submit a concept plan that provides sufficient information for an initial assessment of the proposed project and whether stormwater management can be provided according to section 16.04.110 and the Design Manual. Plans submitted for concept approval shall include, but are not limited to:
- 1. A map at a scale specified by the <del>Department</del> <u>City</u> showing site location, existing natural features, water and other sensitive resources, topography, and natural drainage patterns;
- 2. The anticipated location of all proposed impervious areas, buildings, roadways, parking, sidewalks, utilities, and other site improvements;
- 3. The location of the proposed limit of disturbance, erodible soils, steep slopes, and areas to be protected during construction;
- 4. Preliminary estimates of stormwater management requirements, the selection and location of ESD practices to be used, and the location of all points of discharge from the site;
- 5. A narrative that supports the concept design and describes how ESD will be implemented to the MEP; and
- 6. Any other information required by the Department City.
- B. Following concept plan approval by the Department City, the owner/developer shall submit a site development plan that reflect comments received during the previous review phase. Plans submitted for site development approval shall be of sufficient detail to allow site development to be reviewed and include but not be limited to:
- 1. All information provided during the concept plan review phase;
- 2. Final site layout, exact impervious area locations and acreages, proposed topography, delineated drainage areas at all points of discharge from the site, and stormwater volume computations for ESD practices and quantity control structures;
- 3. A proposed erosion and sediment control plan that contains the construction sequence, any phasing necessary to limit earth disturbances and impacts to natural resources and an overlay plan showing the types and locations of ESD and erosion and sediment control practices to be used;
- 4. A narrative that supports the site development design, describes how ESD will be used to meet the minimum control requirements, and justifies any proposed structural stormwater management measure; and
- 5. Any other information required by the <del>Department</del> City or other approving agency.

- C. Following site development approval by the Department City, the owner/developer shall submit the final stormwater management plan that reflects the comments received during the previous review phase. Plans submitted for final approval shall be of sufficient detail to allow all approvals and permits to be issued according to the following:
- 1. Final erosion and sediment control plans shall be submitted to Montgomery County and shall include the minimum plan content according to COMAR 26.17.01.05; and
- 2. Final stormwater management plans shall be submitted for approval in the form of construction drawings and be accompanied by a report that includes sufficient information to evaluate the effectiveness of the proposed runoff control design.
- D. Reports submitted for final stormwater management plan approval shall include, but are not limited to:
- 1. Geotechnical investigations including soil maps, borings, site specific recommendations, and any additional information necessary for the final stormwater management design;
- 2. Drainage area maps depicting predevelopment and post development runoff flow path segmentation and land use;
- 3. Hydrological computations of the applicable ESD and unified sizing criteria according to the Design Manual for all points of discharge from the site;
- 4. Hydraulic and structural computations for all ESD practices and structural stormwater management measures to be used;
- 5. A narrative that supports the final stormwater management design; and
- 6. Any other information required by the <del>Department</del> <u>City</u> or other approving agency.
- E. Construction drawings submitted for final stormwater management plan approval shall include, but are not limited to:
- 1. A vicinity map;
- 2. Existing and proposed topography and proposed drainage areas, including the areas necessary to determine downstream analysis for proposed stormwater management facilities;
- 3. Any proposed improvements including location of buildings or other structures, impervious surfaces, storm drainage facilities, and all grading;
- 4. The location of existing and proposed structures and utilities;
- 5. Any easements and rights-of-way;
- 6. The delineation, if applicable, of the 100-year floodplain and any on site wetlands:
- 7. Structural and construction details including representative cross sections for all components of the proposed drainage system or systems, and stormwater management facilities;
- 8. All necessary construction specifications;
- 9. A sequence of construction;
- 10. Data for total site area, disturbed area, new impervious area, and total impervious area;

- 11. A table showing the ESD and unified sizing criteria volumes required in the Design Manual;
- 12. A table of materials to be used for stormwater management facility planting;
- 13. All soil boring logs and locations;
- 14. An inspection and maintenance schedule;
- 15. Certification by the owner/developer that all stormwater management construction will be done according to this plan;
- 16. An as-built certification signature block to be executed after project completion; and
- 17. Any other information required by the <del>Department</del> City or other approving agency.
- F. If a stormwater management plan involves direction of some or all runoff of the site, it is the responsibility of the developer to obtain from adjacent property owners any easements or other necessary property interests concerning the flowage of water. Approval of a stormwater management plan does not create or affect any right to direct runoff onto adjacent property without that property owner's permission.

# 16.040.150 Preparation of Stormwater Management Plans

A. The design of stormwater management plans shall be prepared by any individual whose qualifications are acceptable to the Department City. The Department City may require that the design be prepared by either a professional engineer, professional land surveyor, or landscape architect licensed in the State, as necessary to protect the public or the environment.

B. If a stormwater BMP requires either a dam safety permit from MDE or small pond approval from the Montgomery County Soil Conservation District (SCD), the Department City shall require that the design be prepared by a professional engineer licensed in the State.

#### 16.04.160 Permit requirements.

A. A grading or building permit may not be issued for any parcel or lot unless a stormwater management plan has been approved by the Department City as meeting all requirements of the Design Manual and this chapter. Where appropriate, a building permit may not be issued without:

- 1. A performance bond as described in section 16.04.200.
- 2. Recorded easements for the stormwater management facility and easements to provide adequate access for inspection and maintenance from a public right-of-way;
- 3. A recorded stormwater management maintenance agreement as described in section 16.04.240 of this chapter.

16.04.170 Fees.

Non-refundable permit fees will be collected at each phase of stormwater management plan submittal. Permit fees will provide for the cost of plan review, administration, and management of the permitting process, and inspection of all projects subject to this chapter. A fee schedule has been established by the City based upon the relative complexity of the project and may be amended from time to time.

- A. Concept Plan Review Fee. A non-refundable application and plan review fee shall be paid at the time the concept plan is submitted for technical review. The amount of the review fee shall be as follows:
- 1. Single family dwellings: \$50.00.
- 2. Multifamily dwellings: 2 20 units, \$10.00 per unit, with a minimum of \$50.00.
- 3. Commercial, industrial and institutional development and multifamily dwellings of 21 units or more: \$0.05 per square foot of impervious area. By way of example, "impervious area" includes the roof of a building and paved parking area. Minimum fee \$,250.00, maximum fee \$500.00.
- B. Site Development Review Fee. A non-refundable application and review fee shall be paid at the time the site development plan is submitted for technical review. The amount of the review fee shall be as follows:
- 1. Single family dwellings: \$50.00.
- 2. Multifamily dwellings: 2 20 units, \$10.00 per unit, with a minimum of \$50.00.
- 3. Commercial, industrial and institutional development and multifamily dwellings of 21 units or more: \$0.05 per square foot of impervious area. By way of example, "impervious area" includes the roof of a building and paved parking area. Minimum fee \$250.00, maximum fee \$500.00.
- C. Revision Fee. No charge shall be made for the first plan revision submitted for review. The charge for the second and all subsequent plan revisions submitted for review shall be 50% of the original fee.
- D. Update Renewal Fee. A plan update is required if a stormwater management permit is not obtained within 12 months after the approval of the stormwater management plans. A fee of \$100.00 will be charged for reviewing the updated plans.
- E. Waiver Fee. When an applicant obtains a waiver of stormwater management requirements pursuant to Section 16.04.080, the applicant shall be assessed a waiver fee of \$0.50 per square foot of impervious area.
- 1. Imperviousness is determined for the area being developed and for contiguous existing developed areas owned by the applicant which contribute to the stormwater flow through the area being developed or through which stormwater from the area being developed will flow. Imperviousness of areas dedicated on a plat to open space is not included.

- 2. In lieu of all or part of the waiver fee, the City may enter into an agreement with the applicant for a land conveyance, other specific improvements, the granting of an easement or the dedication of land by the applicant to be used for the construction, operation and maintenance of an off-site stormwater management facility. Such agreements must include the reason for the waiver and the option selected (*i.e.*, land conveyance, other specific improvements, easement or land dedication) must be comparable to the stormwater management requirements for the site.
- F. Permit Fee for Final Stormwater Management Plan.
- 1. Single-family dwelling: \$500.00.
- 2. Multifamily dwellings: 2 to 20 units, \$100.00 per unit, with a minimum fee of \$500.00.
- 3. Commercial, industrial, and institutional development and multifamily dwellings of 21 units and more: an amount equal to 10% of the estimated construction costs for the required stormwater management controls.
- 4. If the planned stormwater management controls exceed the requirements set forth in this Chapter, then the applicant may be eligible for a reduction of the fee by up to 50%. The criteria by which the fee reduction will be determined will be established by regulation.

## 16.04.180 Permit suspension and revocation.

A stormwater management permit may be suspended or revoked by the Department City after written notice is given to the permittee for any of the following reasons:

- A. Any violation(s) of the conditions of the stormwater management plan approval;
- B. Changes in site runoff characteristics upon which an approval or waiver was granted;
- C. Construction is not in accordance with the approved plan;
- D. Noncompliance with correction notice(s) or stop work order(s) issued for the construction of any stormwater management facility practice; or
- E. The existence of an immediate danger in a downstream area in the opinion of the Department City.

#### 16.04.190 Permit conditions.

In granting an approval for any phase of site development, the Department City may impose such conditions that may be deemed necessary to ensure compliance with the provisions of this chapter and the preservation of the public health and safety.

16.04.200 Performance bond.

- A. The owner/developer shall be required to provide a surety or cash bond, irrevocable letter of credit, certificate of guaranty or other means of security acceptable to the Department City prior to the issuance of the final stormwater management permit for development requiring a public stormwater management facility.
- B. If security is required, the amount of the security shall not be less than the total construction cost of the stormwater management facility as estimated by the Department City.
- C. Any security required pursuant to this section shall include provisions relative to forfeiture for failure to complete work specified in the approved stormwater management plan, compliance with all the provisions of this chapter, and other applicable laws and regulations and any time limitations.
- D. If security is required, the security shall not be fully released without final inspection of completed stormwater management facility and the acceptance of as-built plans and certification of completion by the Department City that the stormwater management facilities comply with the approved plan and the provisions of this chapter.
- E. A provision may be made for partial release of the amount of the security after various stages of construction have been completed and accepted by the Department City. The procedures used for partially releasing performance bonds must be specified by the Department City in writing prior to final stormwater management plan approval.

## 16.04.210 Inspection schedule and reports.

- A. Prior to issuance of a final stormwater management permit, the owner/developer shall submit to the Department City a proposed schedule for maintenance inspection and construction control as provided for in Section 16.04.260.
- B. The owner/developer shall notify the Department City at least 48 hours before commencing any work in conjunction with site development, the stormwater management permit and upon completion of the project.
- C. Regular inspections shall be made and documented for each ESD planning technique and practice at the stages of construction specified in the Design Manual by the Department City, its authorized representative, or certified by a professional engineer licensed in the State of Maryland. At a minimum, all ESD and other nonstructural practices shall be inspected upon completion of final grading, the establishment of permanent stabilization, and before issuance of use and occupancy approval.
- D. Written inspection reports shall include:
- 1. The date and location of the inspection;
- 2. Whether construction was in compliance with the approved stormwater management plan:

- 3. Any variations from the approved construction specifications; and
- 4. Any violations that exist.
- E. The owner/developer and on-site personnel shall be notified in writing when violations are observed. Written notification shall describe the nature of the violation and the required corrective action.
- F. No work shall proceed on the next phase of development until the <u>DepartmentCity</u> inspects and approves the work previously completed and furnishes the developer with the results of the inspection as soon as possible after completion of each required inspection.

#### 16.04.220 Inspection Requirement During Construction

A. At a minimum, regular inspections shall be made and documented at the following specified stages of construction:

# 1. For ponds:

- a. Upon completion of excavation to sub-foundation and when required, installation of structural supports or reinforcement for structures, including but not limited to:
  - i. core trenches for structural embankments;
  - ii. Inlet and outlet structures, anti-seep collar or diaphragms, and watertight connectors on pipes; and
  - iii. Trenches for enclosed storm drainage facilities;
- b. During placement of structural fill, concrete, and installation of piping and catch basins;
- c. During backfill of foundation and trenches;
- d. During embankment construction; and
- e. Upon completion of final grading and establishment of permanent stabilization.
- 2. Wetlands at the stage specified for pond construction in this section, during and after wetland reservoir area planting, and during the second growing season to verify **a** vegetation survival rate of at least 50 percent.
- 3. For infiltration trenches:
  - a. During excavation to subgrade;
  - b. During placement and backfill of underdrain systems and observation wells;

- c. During placement of geotextiles and all filter media;
- d. During construction of appurtenant conveyance systems such as diversion structures, pre-filters and filters, inlets, outlets, and flow distribution structures; and
- e. Upon completion of final grading and establishment of permanent stabilization
- 4. For infiltration basins at the stages specified for pond construction in Section A.1 of this section and during placement and backfill of underdrain systems.
- 5. For filtering systems:
  - a. During excavation to subgrade;
  - b. During placement of and backfill of underdrain systems;
  - c. During placement of geotextiles and all filter media;
  - d. During construction of appurtenant conveyance systems such as flow diversion structures, pre-filters and filters, inlets, outlets, orifices, and flow distribution structures; and
  - e. Upon completion of final grading and establishment of permanent stabilization.
- 6. For open channel systems:
  - a. During excavation to subgrade;
  - b. During placement and backfill of underdrain systems for dry swales;
  - c. During installation of diaphragms, check dams, or weirs; and
  - d. Upon completion of final grading and establishment of permanent stabilization.
- B. The Department City may, for enforcement purposes, use any one or a combination of the following actions:
- 1. A notice of violation shall be issued specifying the need for corrective action if stormwater management plan noncompliance is identified:
- 2. A stop work order shall be issued for the site by the <del>Department</del> City if a violation persists;
- 3. Bonds or securities shall be withheld or the case may be referred for legal action if reasonable efforts to correct the violation have not been undertaken; or

- 4. In addition to any other sanctions, a civil action or criminal prosecution may be brought against any person or citations issued for violation of the Stormwater Management Subtitle, the Design Manual or this Chapter.
- C. Any step in the enforcement process may be taken at any time, depending on the severity of the violation.
- D. Once construction is complete, "as built" plan certification shall be submitted by either a either a professional engineer or professional land surveyor licensed in the State of Maryland to ensure that ESD planning techniques, treatment practices, and structural stormwater management measures and conveyance systems comply with the specifications contained in the approved plans. At a minimum, "as-built" certification shall include a set of drawings comparing the approved stormwater management plan with what was constructed. The Department City may require additional information.
- E. The Department City shall submit notice of construction completion to the Administration on a form supplied by the Administration for each structural stormwater management practice within 45 days of construction completion. They type, number, total drainage area, and total impervious area treated by all ESD techniques and practices shall be reported to the Administration on a site by site basis. If BMPs requiring Soil Conservation District (SCD) approval are constructed, notice of construction completion shall also be submitted to the appropriate SCD.

16.04.230 Acceptance of certification in lieu of inspections.

The <u>Public Works Director City Manager</u>, in his or her sole discretion, may accept the certification of a registered professional engineer licensed in Maryland in lieu of any inspection during construction required by this chapter.

#### 16.04.240 Maintenance agreement.

- A. An inspection and maintenance agreement shall be executed between the owner and the City for all privately owned ESD treatment practices and structural stormwater management measures prior to the issuance of a final stormwater management permit. Such agreement shall be binding on all subsequent owners of land served by a private stormwater management facility and shall provide for access to the facility at reasonable times for regular inspections by the <a href="DepartmentCity">DepartmentCity</a> or its authorized representative to ensure that the facility is maintained in proper working condition to meet design standards.
- B. The agreement shall be recorded by the applicant in the land records of the County prior to the issuance of a stormwater management permit.
- C. The agreement shall also provide that upon a failure to correct violations requiring maintenance work within 10 days after notice thereof, the DepartmentCity may provide for all

necessary work to place the facility in proper working condition. The owner(s) of the facility shall be assessed the costs of the work and any penalties. This may be accomplished by placing a lien on the property, which may be placed on the tax bill and collected as property taxes by the City.

16.04.250 Ownership and maintenance of stormwater management facilities.

- A. Any stormwater management measure which serves a single lot or facility shall be privately owned and maintained. The owner or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all ESD practices, grade surfaces, walls, drains, dams and structures, vegetation, erosion and sediment control measures, and other protective devices in perpetuity. Such repairs or restoration and maintenance shall be in accordance with previously approved plans or newly submitted plans.
- B. All stormwater management measures relying on vegetated areas or site features shall be privately owned and maintained.
- C. All stormwater management facilities serving the general City stormwater management system which are constructed by the City or other public or governmental body or which are conveyed or dedicated to the City shall be publicly owned and maintained.
- D. A maintenance schedule shall be developed for the life of any stormwater management facility or system of ESD practices, and shall state the maintenance to be completed, the time period for completion, and who shall perform the maintenance. This maintenance schedule shall be printed on or attached to the approved stormwater management plan.

## 16.04.260 Maintenance inspection

- A. Preventive maintenance inspections of all ESD treatment practices and structural stormwater management measures shall be made by the Department City. The inspection schedule shall include an inspection during the first year of operation and at least once every 3 years thereafter.
- B. The Department City shall maintain a file of all maintenance inspection reports for all ESD treatment practices and structural stormwater management measures.
- C. Inspection reports for ESD treatment practices and structural stormwater management systems shall include the following:
- 1. The date of inspection;
- 2. The name of the inspector;
- 3. An assessment of the quality of the stormwater management system related to ESD treatment practice efficiency and the control of runoff to the MEP;

- 4. The condition of vegetation or filter media, fences or other safety devices, spillways, valves, or other control structures, embankments, slopes, and safety benches; reservoir or treatment areas; outlet or inlet channels or structures, underground drainage, sediment load and debris accumulation in storage and forebay areas, any nonstructural practices to the extent practicable, or any other item that could affect the proper function of the stormwater management system; and
- 5. A description of needed maintenance.
- D. If, after an inspection, the condition of a stormwater management facility presents an immediate danger to the public health or safety because of an unsafe condition or improper construction or poor maintenance, the Department City shall take such action as may be necessary to protect the public and make the facility safe. The owner(s) of the facility shall be assessed any costs of such action, and the cost shall be a lien on the property, which may be placed on the tax bill and collected as property taxes by the City.
- E. After notification is provided to the owner of any deficiencies discovered from an inspection of a stormwater management system, the owner shall have 30 days or such other time frame mutually agreed to between the Department City and the owner, to correct the deficiencies. The Department City shall then conduct a subsequent inspection to ensure completion of the repairs.
- F. If repairs are not properly undertaken and completed, enforcement procedures as set forth in this chapter shall be followed by the Department City.
- 16.04.270 Unsafe condition--Entry onto property.
- A. If stormwater runoff in the City causes or threatens to cause an unsafe condition, then the Public Works Director City Manager is authorized to enter onto property for the purpose of determining the cause of the runoff, inspecting the condition causing the runoff, determining whether the runoff is being properly managed or contained, and/or correcting the condition.
- 1. For purposes of this section, an "unsafe condition" means damage to property or to the public health or safety.
- 2. Any entry onto property shall be made at reasonable times and in a reasonable manner.
- B. If the <u>Public Works Director City Manager</u> determines that stormwater runoff in the City causes or threatens to cause an unsafe condition, then the City Manager may correct the condition or may issue a violation notice to the property owner.
- 1. The violation notice shall specify the problem, the corrective action which is required and the time within which corrective action must be taken. A property owner shall be given not less than 2 weeks to complete the corrective action in a good and worker-like manner, unless, because of the nature of the unsafe condition, a shorter time is deemed appropriate by the Public Works Director City Manager in his or her sole discretion.

- 2. Failure to perform corrective action within the time specified in the violation notice shall be a violation of this chapter.
- 3. If the <u>Public Works Director City Manager</u> corrects the condition, then the property owner may be assessed the costs of the corrective action. If assessed to the property owner, the costs of the corrective action shall be a lien on the property, which may be placed on the tax bill and collected as property taxes by the City.

#### 16.04.280 Appeals.

Any person aggrieved by the action of any official charged with the enforcement of this chapter, as the result of the disapproval of a properly filed application for a permit, issuance of a written notice of violation, or an alleged failure to properly enforce this chapter in regard to a specific application, shall have the right to appeal the action to the City Manager. The appeal shall be filed in writing within 10 days of the date of the official transmittal of the final decision or action to the owner/developer and state clearly the grounds on which the appeal is based. Upon receipt of the notice of appeal, the City Manager shall make such investigation of the facts as the City Manager deems necessary and issue a determination affirming, modifying or revoking the permit denial, violation notice, or other notice, order or action which is the subject of the appeal.

## 16.04.290 Violations and penalties.

- A. Any violation of any of the provisions of this chapter shall be a Class AA offense as set forth in Section 1.04.1820, Municipal Infractions, of this Code.
- B. Each day that the violation continues shall be a separate offense.
- C. If the violation causes, threatens to cause, or has caused substantial danger to the public health or safety, then the <u>Public Works Director City Manager</u> may deem the violation a Class A misdemeanor offense as set forth in Section 1.04.130, Misdemeanors, of this Code.
- D. In addition to all other enforcement measures set forth in this chapter, the City may institute injunctive, mandamus or other appropriate actions or proceedings for the enforcement of this chapter or to correct violations of this chapter and any court of competent jurisdiction shall have the right to issue temporary or permanent restraining orders, injunctions, mandamus or other appropriate forms of remedy or relief.

## 16.04.300 Severability

If any portion of this chapter is held invalid or unconstitutional by a court of competent jurisdiction, such portion shall not affect the validity of the remaining portions of this chapter. It

is the intent of the City that this chapter shall stand, even if a section, subsection, sentence, clause, phase, or portion may be found invalid.

# **Section 2.** This ordinance shall be effective upon adoption.

Adopted this 10th day of May, 2010 by roll-call vote as follows:

AYE: Williams, Wright, Clay, Robinson, Seamens, Snipper, Schultz

NAY: None ABSTAIN: None ABSENT: None

Note:

Language added to the Code is shown by <u>underlining</u>. Deleted language is shown by <del>strikeout</del>.