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COUNTY COUNCIL

OF

DORCHESTER COUNTY, MARYLAND

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CIRCUIT COURT
DORCHESTER COUNTY

2010 Legislative Session, 7
Legislative Day _____, 2010

Introduced By: County Council

BILL NO. 2010 - 12

AN ACT OF THE COUNTY COUNCIL OF DORCHESTER COUNTY, MARYLAND PURSUANT TO THE AUTHORITY OF THE ENVIRONMENT ARTICLE, TITLE 4 SUBTITLE 2 OF THE ANNOTATED CODE OF MARYLAND AND PURSUANT TO ARTICLE 25A, SECTION 5(S) OF THE ANNOTATED CODE OF MARYLAND TO REPEAL AND REENACT CHAPTER 134 OF THE DORCHESTER COUNTY CODE ENTITLED "STORMWATER MANAGEMENT" PROVIDING FOR THE PROTECTION, MAINTENANCE AND ENHANCEMENT, PUBLIC SAFETY AND GENERAL WELFARE BY ESTABLISHING MINIMUM REQUIREMENTS TO CONTROL THE ADVERSE IMPACTS ASSOCIATED WITH INCREASED STORMWATER RUNOFF.

Introduced, read first time, ordered posted on official bulletin board of County Office Building, 501 Court Lane, Cambridge, Maryland, 21613.

Ordered publication for once a week for three (3) consecutive weeks, and public hearing scheduled on Tuesday, June 22, 2010, Room 110, County Office Building, 501 Court Lane, Cambridge, Maryland at 6:25 PM.

By order:


Jane Baynard, County Manager

**THE COUNTY COUNCIL
OF
DORCHESTER COUNTY, MARYLAND**

BILL NO. 2010-12

AN ACT OF THE COUNTY COUNCIL OF DORCHESTER COUNTY, MARYLAND PURSUANT TO THE AUTHORITY OF THE ENVIRONMENT ARTICLE, TITLE 4 SUBTITLE 2 OF THE ANNOTATED CODE OF MARYLAND AND PURSUANT TO ARTICLE 25A, SECTION 5(S) OF THE ANNOTATED CODE OF MARYLAND TO REPEAL AND REENACT CHAPTER 134 OF THE DORCHESTER COUNTY CODE ENTITLED “STORMWATER MANAGEMENT” PROVIDING FOR THE PROTECTION, MAINTENANCE AND ENHANCEMENT, PUBLIC SAFETY AND GENERAL WELFARE BY ESTABLISHING MINIMUM REQUIREMENTS TO CONTROL THE ADVERSE IMPACTS ASSOCIATED WITH INCREASED STORMWATER RUNOFF.

SECTION ONE: Acting under the authority of the Environmental Article, Title 4, Subtitle 2 of the Annotated Code of Maryland and pursuant to Article 25A, Section 5(S) of the Annotated Code of Maryland (The “Acts”), be it ENACTED and ORDAINED BY THE County Council of Dorchester County, Maryland that Chapter 134, entitled “Stormwater Management” be repealed and reenacted to read as follows:

CHAPTER 134
Stormwater Management

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STORMWATER MANAGEMENT

**ARTICLE I
Purpose and Authority**

§134-1.0 Purpose and Authority

The purpose of this Chapter is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures that control the adverse impacts associated with increased stormwater runoff. 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.

The provisions of this Chapter, pursuant to the Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland, 2009 replacement volume, are adopted under the authority of the Dorchester County Code and shall apply to all subdivision and land development occurring within the unincorporated/incorporated area of Dorchester County. The application of this Chapter and provisions expressed herein shall be the minimum stormwater management requirements and shall not be deemed a limitation or repeal of any other powers granted by State statute.

The Dorchester County Department of Public Works shall be responsible for the coordination and enforcement of the provisions of this Chapter.

§134.1.1 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 Dorchester County Council and shall serve as the official guide for stormwater management principles, methods, and practices.

B. USDA Natural Resources Conservation Service Maryland Conservation Practice Standard Pond Code 378 (January 2000).

§134.1.2 Grandfathering

A. In this section, the following terms have the meanings indicated:

(1) Administrative waiver.

(a) "Administrative waiver" means a decision by the Dorchester County Department of Public Works pursuant to this Chapter to allow the construction of a development

to be governed by the stormwater management ordinance in effect as of May 4, 2009 in the local jurisdiction where the project will be located.

(b) "Administrative waiver" is distinct from a waiver granted pursuant to Section 3.3 of this Ordinance.

(2) Approval.

(a) "Approval" means a documented action by the Dorchester County Department of Public Works following a review to determine and acknowledge the sufficiency of submitted material to meet the requirements of a specified stage in a local development review process.

(b) "Approval" does not mean an acknowledgement by the Dorchester County Department of Public Works that submitted material has been received for review.

(3) Final project approval.

(a) "Final project approval" means approval of the final stormwater management plan and erosion and sediment control plan required to construct a project's stormwater management facilities.

(b) "Final project approval" also includes securing bonding or financing for final development plans if either is required as a prerequisite for approval.

(4) "Preliminary project approval" means an approval as part of a local preliminary development or planning review process that includes, at a minimum:

(a) The number of planned dwelling units or lots;

(b) The proposed project density;

(c) The proposed size and location of all land uses for the project;

(d) A plan that identifies:

(i) The proposed drainage patterns;

(ii) The location of all points of discharge from the site; and

(iii) The type, location, and size of all stormwater management measures based on site-specific stormwater management requirement computations; and

(e) Any other information required by the Dorchester County Department of Public Works including, but not limited to:

(i) The proposed alignment, location, and construction type and standard for all roads, access ways, and areas of vehicular traffic;

(ii) A demonstration that the methods by which the development will be supplied with water and wastewater service are adequate; and

(iii) The size, type, and general location of all proposed wastewater and water system infrastructure.

B. The Dorchester County Department of Public Works may grant an administrative waiver to a development that received a preliminary project approval prior to May 4, 2010. Administrative waivers expire according to §134.1.2.C of this Chapter and may be extended according to §134.1.2.D. of this Chapter.

C. Expiration of Administrative Waivers.

(1) Except as provided for in §134.1.2. D. of this Chapter, an administrative waiver shall expire on:

(a) May 4, 2013, if the development does not receive final project approval prior to that date; or

(b) May 4, 2017, if the development receives final project approval prior to May 4, 2013.

(2) All construction authorized pursuant to an administrative waiver must be completed by May 4, 2017 or, if the waiver is extended as provided in §134.1.2. D. of this Chapter, by the expiration date of the waiver extension.

D. Extension of Administrative Waivers.

(1) Except as provided in 1.2 D. (2) of this Ordinance, an administrative waiver shall not be extended.

(2) An administrative waiver may only be extended if, by May 4, 2010 the development:

(a) Has received a preliminary project approval; and

(b) Was subject to a Development Rights and Responsibilities Agreement, a Tax Increment Financing approval, or an Annexation Agreement.

(3) Administrative waivers extended according to 1.2 D. (2) of this Ordinance shall expire when the Development Rights and Responsibilities Agreement, the Tax Increment Financing approval, or the Annexation Agreement expires.

ARTICLE II
Definitions

§134-2.0 Definitions

- A. The following definitions are provided for the terms used in this Chapter:
- B. Unless otherwise stated, the following words shall for the purpose of this Chapter have the meaning herein indicated. Words in the present tense include the future tense. Words in singular include the plural and words in the plural the singular.
- C. The masculine gender includes the feminine gender and the neuter. References to “codes, chapters, resolution, plans, maps, governmental bodies, commissions or agencies, or officials” are references to codes, chapters or agencies, or officials of Dorchester County, Maryland or the State of Maryland as in effect or office from time to time including amendments thereto or revisions or successors thereof, unless the text indicates another reference is intended.
- D. Words not defined shall have the meanings given in Webster’s Unabridged Dictionary and shall be interpreted so as to give the Chapter its most reasonable application.
- (1). "Administration" means the Maryland Department of the Environment (MDE) Water Management Administration (WMA).
 - (2). "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.
 - (3). "Agricultural land management practices" means those methods and procedures used exclusively in the cultivation of land to further crop and livestock production including tillage, plowing, discing, harrowing, pasturing and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.
 - (4). "Applicant" means any person who executes the necessary forms to procure official approval of a project or a permit to carry out construction of a project, including his heirs, successors and assigns.
 - (5). "Aquifer" means a porous water bearing geologic formation generally restricted to materials capable of yielding an appreciable supply of water.
 - (6). "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.

- (7). "Building" means any structure, either temporary or permanent, having walls and a roof, designed or used for the shelter of any person, animal or property.
- (8). "Channel protection storage volume (Cp_v)" 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.
- (9). "Clearing" means the removal of trees and brush from the land but shall not include the ordinary mowing of grass.
- (10). "Conveyance" means the ability of a pipe, culvert, swale or similar facility to carry the peak flow from the design storm.
- (11). "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.
- (12). "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.
- (13). "Development" means to change the runoff characteristics of a parcel of land in conjunction with residential, commercial, industrial, or institutional construction or alteration.
- (14). "Direct discharge" means the concentrated release of stormwater to tidal waters or vegetated tidal wetlands from new development or redevelopment projects in the Critical Area.
- (15). "Dorchester County Department of Public Works" means the entity responsible for the review and approval of stormwater management plans including the reviewing agencies delegated to review plan submissions.
- (16). "Drainage area" means that area contributing runoff to a single point measured in a horizontal plane, which is enclosed by a ridge line.
- (17). "Drainage Conveyance Facility" means a stormwater management facility designed and constructed to transmit stormwater runoff and shall include roadside ditches, swales, drainage ditches, channels, pipes, conduits, culverts, streams, storm sewers, etc.
- (18). "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.
- (19). "Energy Dissipator" means a device used to slow the velocity of stormwater particularly at points of concentrated discharge such as pipe outlets.

- (20). "Environmental Site Design (ESD)" means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Methods for designing Environmental Site Design practices are specified in the Design Manual.
- (21). "Exemption" means those land development activities that are not subject to the stormwater management requirements contained in this Chapter.
- (22). "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 Best Management Practices are specified in the Design Manual.
- (23). "Extreme flood volume (Q_f)" 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.
- (24). "Final Land Development 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.
- (25). "Flow attenuation" means prolonging the flow time of runoff to reduce the peak discharge.
- (26). "Grading" means any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled, or any combination thereof.
- (27). "Impervious area" means any surface that does not allow stormwater to infiltrate into the ground. For the purposes of stormwater design, stoned areas used for vehicles shall be considered impervious area.
- (28). "Infiltration" means the passage or movement of water into the soil surface.
- (29). "Maximum extent practicable (MEP)" means designing stormwater management systems so that all reasonable opportunities for using Environmental Site Design planning techniques and treatment practices are exhausted and only where absolutely necessary, a structural Best Management Practice is implemented.
- (30). "Minor Residential Subdivision" means the division of a single lot, tract or parcel of land existing as of April 1, 1995, into four or fewer single family residential lots, tracts or parcels of land, either all at one time, or lot by lot, provided that the proposed lots, tracts or parcels of land thereby created have frontage on an existing improved community street or streets, and provided further that there is not created by the subdivision any new street or streets.

- (31). "Off-site stormwater management" means the design and construction of a facility necessary to control stormwater from more than one development.
- (32). "On-site stormwater management" means the design and construction of systems necessary to control stormwater within an immediate development.
- (33). "Overbank flood protection volume (Q_p)" 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.
- (34). "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.
- (34). "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.
- (35.) "Preliminary Land Development Plan" means the second of three required plan approvals that includes the information necessary to allow a detailed evaluation of a proposed project.
- (36). "Recharge volume (Re_v)" 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.
- (37). "Record Drawings" means a set of prints of the original facilities showing those changes made during the construction process.
- (38). "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.
- (39). "Retention structure" means a permanent structure that provides for the storage of runoff by means of a permanent pool of water.
- (40). "Retrofitting" means the implementation of Environmental Site Design practices, the construction of structural Best Management Practices, or the modification of an existing structural Best Management Practice in a previously developed area to improve water quality over current conditions.
- (41). "Sediment" means soils or other surficial materials transported or deposited by the action of wind, water, ice, or gravity as a product of erosion.

- (42). "Sheet flow" means runoff which flows over the ground surface as a thin, even layer, not concentrated in a channel.
- (43). "Site" means any tract, lot, or parcel of land, or combination of tracts, lots, parcels of land that 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.
- (44). "Sketch plan" means the first of three required plan approvals that includes the information necessary to allow an initial evaluation of a proposed project.
- (45). "Stabilization" means the prevention of soil movement by any of various vegetative and/or structural means.
- (46). "Stormwater" means water that originates from a precipitation event.
- (47). "Stormwater management system" means natural areas, Environmental Site Design practices, stormwater management measures, drainage conveyance facilities and any other structure through which stormwater flows, infiltrates, or discharges from a site.
- (48). "Stripping" means any activity that removes the vegetative surface cover including tree removal, clearing, grubbing, and storage or removal of topsoil.
- (49). "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.
- (50). "Waiver" means the reduction of stormwater management requirements by The Dorchester County Department of Public Works for a specific development on a case-by-case review basis.
- (51). "Watercourse" means any natural or artificial stream, river, creek, ditch, swale, 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.
- (52). "Water quality volume (WQ_v)" means the volume needed to capture and treat 90 percent of the average annual rainfall events at a development site. Methods for calculating the water quality volume are specified in the Design Manual.
- (53). "Watershed" means the total drainage area contributing runoff to a single point.

ARTICLE III
Applicability

§134-3.0 Scope

No person shall subdivide or develop any land for residential, commercial, industrial, or institutional uses without providing stormwater management measures that control or manage runoff from such developments, except as provided within this section. 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 §134-3.3 of this Chapter for redevelopment.

§134-3.1 Exemptions

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

- A. Agricultural land management practices;
- B. Additions or modifications to existing single family detached residential structures if they comply with §134-3.1.C. of this Chapter;
- C. Any developments that do not disturb over 5,000 square feet of land area; and
- D. Land development activities that the Administration determines will be regulated under specific State laws, which provide for managing stormwater runoff.

§134-3.2 Waivers/Watershed Management Plans

A. Except as provided in §134-3.3.B and D. of this Chapter, the Dorchester County Department of Public Works shall grant stormwater management quantitative control waivers to only those projects within areas where watershed management plans have been developed consistent with §134-3.2.G. of this Chapter. 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 Environmental Site Design has been implemented to the Maximum Extent Practicable. 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. Except as provided in §134.3.3.D of this Chapter, if watershed management plans consistent with §134-3.2.G. of this Chapter have not been developed, stormwater management quantitative control waivers may be granted to the following projects provided that it has been demonstrated that Environmental Site Design has been implemented to the Maximum Extent Practicable.

- (1) That have direct discharges to tidally influenced receiving waters; or

(2) That are in-fill development located in a Priority Funding Area where the economic feasibility of the project is tied to the planned density, and where implementation of the 2009 regulatory requirements would result in a loss of the planned development density provided that:

- (a) Public water and sewer and stormwater conveyance exist;
- (b) The quantitative waiver is applied to the project for the impervious cover that previously existed on the site only;
- (c) ESD to the MEP is used to meet the full water quality treatment requirements for the entire development; and
- (d) ESD to the MEP is used to provide full quantity control for all new impervious surfaces; or

(3) When the approving agency determines that circumstances exist that prevent the reasonable implementation of quantity control practices.

C. Except as provided in §134-3.3.D. of this Chapter stormwater management qualitative control waivers apply only to:

- (1) In-fill development projects where Environmental Site Design has been implemented to the Maximum Extent Practicable and it has been demonstrated that other Best Management Practices are not feasible;
- (2) Redevelopment projects if the requirements of §134-3.3 of this Chapter are satisfied; or
- (3) Sites where the approving agency determines that circumstances exist that prevent the reasonable implementation of Environmental Site Design has been implemented to the Maximum Extent Practicable.

D. Stormwater management quantitative and qualitative control waivers may be granted for phased development projects if a system designed to meet the 2000 regulatory requirements and the Dorchester County Department of Public Works regulations for multiple phases has been constructed by May 4, 2010. If the 2009 regulatory requirements cannot be met for future phases constructed after May 4, 2010, all reasonable efforts to incorporate ESD in future phases must be demonstrated.

E. Waivers shall only be granted when it has been demonstrated that Environmental Site Design has been implemented to the Maximum Extent Practicable and must:

- (1) Be on a case-by-case basis;

(2) Consider the cumulative effects of the Dorchester County Department of Public Works waiver policy; and

(3) Reasonably ensure the development will not adversely impact stream quality.

F. If the Dorchester County Department of Public Works has established an overall watershed management plan for a specific watershed, then the Dorchester County Department of Public Works may develop quantitative waiver and redevelopment provisions that differ from §134-3.2.B and §134-3.3 of this Chapter.

G. 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 Environmental Site Design implementation;
- (3) Include a 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.

§134-3.3 Redevelopment

A. Stormwater management plans are required by the Dorchester County Department of Public Works for all redevelopment, unless otherwise specified by watershed management plans developed according to §134-3.2.G. of this Chapter. Stormwater management measures must be consistent with the Design Manual.

B. All redevelopment designs shall:

- (1) Reduce the existing site impervious area by at least 50 percent according to the Design Manual;

- (2) Implement Environmental Site Design to the Maximum Extent Practicable to provide water quality treatment for at least 50 percent of the existing impervious site area within the limit of disturbance (LOD); or
- (3) Use a combination of §134-3.3.B. (1) and (2) of this Chapter for at least 50 percent of the existing site impervious area within the limit of disturbance (LOD).

C. Alternative stormwater management measures may be used to meet the requirements in §134-3.3.B. of this Chapter if the owner/developer satisfactorily demonstrates to the Dorchester County Department of Public Works that impervious area reduction has been maximized and Environmental Site Design implemented to the Maximum Extent Practicable. Alternative stormwater management measures include, but are not limited to:

- (1) An on-site structural Best Management Practices;
- (2) An off-site structural Best Management Practices to provide water quality treatment for an area equal to or greater than 50 percent of the existing impervious area within the limit of disturbance (LOD); or
- (3) A combination of impervious area reduction, implementation, and an on-site or off-site structural Best Management Practices for an area equal to or greater than 50 percent of the existing site impervious area within the limit of disturbance (LOD).

D. The Dorchester County Department of Public Works may develop separate policies for providing water quality treatment for redevelopment projects if the requirements of §134-3.3.B. and C. of this Chapter cannot be met. Any separate redevelopment policy shall be reviewed and approved by the Administration and may include, but not be limited to:

- (1) A combination of ESD and an on-site or off-site structural BMP;
- (2) Retrofitting including existing BMP upgrades, filtering practices, and off-site ESD implementation;
- (3) Participation in a stream restoration project;
- (4) Pollution trading with another entity;
- (5) Payment of a fee-in-lieu; or
- (6) A partial waiver of the treatment requirements if ESD is not practicable.

E. The determination of what alternatives will be available may be made by The Dorchester County Department of Public Works at the appropriate point in the development review process. The Dorchester County Department of Public Works shall consider the prioritization of alternatives in §134.3.4 D of this Chapter after it has been determined that it is

not practicable to meet the 2009 regulatory requirements using ESD. In deciding what alternatives may be required, the Dorchester County Department of Public Works may consider factors including, but not limited to:

- (1) Whether the project is in an area targeted for development incentives such as a Priority Funding Area, a designated Transit Oriented Development area, or a designated Base Realignment and Closure Revitalization and Incentive Zone;
- (2) Whether the project is necessary to accommodate growth consistent with comprehensive plans; or
- (3) Whether bonding and financing have already been secured based on an approved development plan.

F. Stormwater management shall be addressed according to the new development requirements in the Design Manual for any net increase in impervious area.

§134-3.4 Variance

The Dorchester County Department of Public Works may grant a written variance from any requirement of Article 4, Stormwater Management Criteria, if there are exceptional circumstances applicable to the site such that strict adherence will result in unnecessary hardship and not fulfill the intent of this Chapter. A written request for variance shall be provided to The Dorchester County Department of Public Works and shall state the specific variances sought and reasons for their granting. The Dorchester County Department of Public Works shall not grant a variance unless and until sufficient justification is provided by the person developing land that the implementation of Environmental Site Design to the Maximum Extent Practicable has been investigated thoroughly.

ARTICLE 4 Stormwater Management Criteria

§134-4.0 Minimum Control Requirements

A. The minimum control requirements established in this section and the Design Manual are as follows:

- (1) Planning techniques, nonstructural practices, and design methods specified in the Design Manual are required to be used to implement Environmental Site Design to the Maximum Extent Practicable. The use of Environmental Site Design planning techniques and treatment practices must be exhausted before any structural Best Management Practices is implemented. Stormwater management plans for development projects subject to this Chapter shall be designed using Environmental Site Design sizing criteria, recharge volume, water quality volume, and channel protection storage volume criteria according to the Design Manual. The Maximum Extent Practicable 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.
- (3) The Dorchester County Department of Public Works may determine that additional stormwater management is necessary because historical flooding problems exist and downstream floodplain development and conveyance system design cannot be controlled.
- (4) The Dorchester County Department of Public Works 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.
- (5) The Stormwater Management Plan shall demonstrate that the 100-year frequency storm will not damage stormwater management facilities.

B. Alternate minimum control requirements may be adopted subject to Administration approval. The Administration shall require a demonstration that alternative requirements will implement Environmental Site Design to the Maximum Extent Practicable and control flood damages, accelerated 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 Maryland Department of the Environment in accordance with the Flood Hazard Management Act of 1976.

§134-4.1 Stormwater Management Measures

A. The Environmental Site Design planning techniques and practices and structural stormwater management measures established in this Chapter and the Design Manual shall be used, either alone or in combination in a stormwater management plan. A developer shall demonstrate that Environmental Site Design has been implemented to the Maximum Extent Practicable before the use of a structural Best Management Practice is considered in developing the stormwater management plan.

B. Environmental Site Design 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 §134-4. of this Chapter:
 - (a) Preserving and protecting natural resources;

- (b) Conserving natural drainage patterns;
 - (c) Minimizing impervious area;
 - (d) Reducing runoff volume;
 - (e) Using Environmental Site Design 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 practices approved by the Administration.
- (2) The following Environmental Site Design treatment practices shall be designed according to the Design Manual to satisfy the applicable minimum control requirements established in §134-4. of this Chapter:
- (a) Disconnection of rooftop runoff;
 - (b) Disconnection of non-rooftop runoff;
 - (c) Sheet flow to conservation areas;
 - (d) Rainwater harvesting;
 - (e) Submerged gravel wetlands;
 - (f) Landscape infiltration;
 - (g) Infiltration berms;
 - (h) Dry wells;
 - (i) Micro-bioretenion;
 - (j) Rain gardens;
 - (k) Swales;
 - (l) Enhanced filters; and
 - (m) Any practices approved by the Administration.

- (3) The use of Environmental Site Design planning techniques and treatment practices specified in this section shall not conflict with existing State law or local ordinances, regulations, or policies. Dorchester County shall modify planning and zoning ordinances and public works codes to eliminate any impediments to implementing Environmental Site Design to the Maximum Extent Practicable according to the Design Manual.

C. 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 §134-4. of this Chapter:
 - (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 State.

D. Environmental Site Design planning techniques and treatment practices and structural stormwater management measures used to satisfy the minimum requirements in §134-4. of this Chapter must be recorded in the land records of Dorchester County and remain unaltered by subsequent property owners. Prior approval from the Dorchester County Department of Public Works shall be obtained before any stormwater management practice is altered.

E. Alternative Environmental Site Design 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 Dorchester County Department of Public Works.

F. For the purposes of modifying the minimum control requirements or design criteria, the owner/developer shall submit to the Dorchester County Department of Public Works 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 stream flow. The point of investigation is to be established with the concurrence of the Dorchester County Department of Public Works, downstream of the first downstream tributary whose drainage area equals or exceeds the contributing area to the project or stormwater management facility.

§134-4.2 Specific Design Criteria

The basic design criteria, methodologies, and construction specifications, subject to the approval of the Dorchester County Department of Public Works and the Administration, shall be those of the Design Manual and in addition to the following.

- A. All stormwater flowing over the project site shall be considered in the design of the stormwater management facilities.
- B. Stormwater management facilities which involve a State highway shall be subject to the approval of the State Highway Administration.
- C. Stormwater runoff shall not be transferred from one watershed to another unless the watersheds are sub-watersheds of a common watershed, which join together within the perimeter of the property, or the effect of the transfer does not alter the peak discharge onto adjacent lands, or drainage easements of the affected landowners.
- D. Stormwater runoff from a project site shall flow directly into a watercourse or into an existing storm sewer system, or onto adjacent properties in a manner similar to the runoff characteristics of the predevelopment flow rate conditions. The Dorchester County Department of Public Works may require proof in the form of a certified U.S. Mail receipt that he or his agent has informed the immediate downstream property owner of the effects of the stormwater discharge from the proposed development. If neither of these is available, the applicant shall obtain an easement from the downstream property owner to allow the runoff discharge rate from the 10 year storm to be conveyed to a watercourse or existing storm sewer system. Where the downstream owner will not grant such an easement, the runoff from the applicant's site shall flow onto the adjacent property in a manner similar to the runoff characteristics of the predevelopment flow rate. Where an easement is granted the drainage conveyance facility shall demonstrate a capacity to safely handle the discharge rate from a 100 year storm. 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.
- E. The applicant or his agent shall demonstrate that any facilities intended to be installed and located on an individual or group of individual lots can be adequately maintained by the homeowner(s) and/or lot owner(s).
- F. For the purpose of determining pre- and post-development runoff coefficients, the following criteria shall be used:
 - (1) Predevelopment runoff coefficients for all areas within the site boundaries shall be based on woods in good condition.

- (2) Off-site land use conditions used to determine storm flows for the pre- and post-development comparison shall be based on existing land uses assuming summer or good condition for onsite areas and winter or poor conditions for off-site areas.

G. The flood frequency for the design of road cross culverts and analysis of existing culverts shall be based on a 10 year design frequency for designated local streets and a 25 year design frequency for all existing County roads. The headwater pool for the design frequency shall not be higher than six (6) inches below the edge of the pavement.

H. All culverts shall be laid to a minimum of one (1) foot from finished subgrade to the crown of pipe in paved areas, unpaved vehicular areas and one (1) foot from finished grade to the crown of the pipe in grassed areas. Headwalls and end sections shall be used where stormwater enters or leaves the culvert or storm sewer horizontally from a natural or manmade channel. All culvert crossings shall be perpendicular to the road centerline.

I. All Stormwater management pipe collection and conveyance systems shall have a minimum diameter of fifteen (15) inches and shall be made of reinforced concrete pipe or smooth lined high density polyethylene pipe (HDPE). Curves in pipes or box culverts without an inlet or manhole are prohibited. Tee joints, elbows and wyes are also prohibited. All stormwater pipe connections shall be constructed with watertight joints of a type approved by the Dorchester County Department of Public Works. This requirement shall be so noted and/or detailed on any plans.

J. Storm facilities not located within a public right of way shall be centered within an easement having a minimum width of eighteen (18) feet plus the top width of a swale or outside diameter of a pipe, or 20 feet, whichever is greater. The easement shall provide for access from a public road.

K. Stormwater pipes, culverts, manholes, inlets, headwalls, endwalls and end sections shall be constructed in accordance with Maryland Department of Transportation Standard Specifications for Construction and Materials in effect at the time the design is submitted.

ARTICLE 5

Stormwater Management Plans

§134-5.0 Review and Approval of Stormwater Management Plans

A. For any proposed subdivision or land development, the owner/developer shall submit phased stormwater management plans to the Dorchester County Department of Public Works for review and approval. At a minimum, plans shall be submitted for the sketch, preliminary and final land development phases of project design. Each plan submittal shall include the minimum content specified in §134-5.1 of this Chapter and meet the requirements of the Design Manual and Article 4 of this Chapter.

B. The Dorchester County Department of Public Works 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 agencies including, but not limited to the Soil Conservation District (SCD), the Departments of Planning and Zoning, Public Works and Health. All comments from the Dorchester County Department of Public Works and other appropriate agencies shall be addressed and approval received at each phase of project design before subsequent submissions.

C. All plan submissions shall be made to the Dorchester County Planning and Zoning Department which shall coordinate planning reviews with the appropriate reviewing agencies.

D. The applicant for submission of a Minor Residential Subdivision may request a waiver of the requirement to submit a preliminary plan in accordance with §134-5.1.B. if Environmental Site Design practices have been fully utilized.

E. The Subdivision and Land Development of a one (1) lot single family residential unit utilizing the application of preapproved Environmental Site Design features may utilize a standard stormwater management plan approved by the Dorchester County Department of Public Works as an alternative to the requirements of §134-5.1.B., C., D., E., F. and §134-5.2.

F. Notification of approval or reasons for disapproval or modification shall be given to the applicant within 30 days after submission of a complete stormwater plan. If a decision is not made within 30 days the applicant or designated representative shall be informed of the status of the review process and the anticipated completion date. The stormwater management plan shall not be considered approved without the inclusion of the signature and date of signature of the Director of the Dorchester County Department of Public Works on the plan.

§134-5.1 Contents and Submission of Stormwater Management Plans

A. The owner/developer shall submit a sketch plan that provides sufficient information for an initial assessment of the proposed project and whether stormwater management can be provided according to §134-4.1 of this Chapter and the Design Manual. Plans submitted for sketch plan approval shall include, but are not limited to:

- (1) A location map, for the purpose of locating the project site to be developed, at a minimum scale of two thousand (2,000) feet to the inch, showing the relation of the tract to adjoining property and to all streets and municipal boundaries existing within one thousand (1,000) feet of any part of the tract of land on which the project site is proposed to be developed;
- (2) The proposed name or identifying title of the project along with Plan date, date of latest revision, north point, graphic scale and written scale. All Plans shall be drawn at a common engineering scale;
- (3) Total acreage of the project site and the tract of land on which the project site is located;
- (4) The proposed land use, number of lots and dwelling units and the extent of commercial, industrial or other residential uses;

- (5) The name and address of the landowner and developer of the project site;
- (6) The names of all owners of all immediately adjacent land, the names of all proposed or existing developments immediately adjacent, and the locations and dimensions of any adjacent streets or easements;
- (7) A site plan at a scale specified by the Dorchester County Department of Public Works showing development site location, existing natural features, water and other sensitive resources, topography, and natural drainage patterns;
- (8) The location of any existing private and public drainage easements and culvert pipes including the designation of state and federal regulated water bodies and streams;
- (9) The anticipated location and area computation of all proposed impervious areas, buildings, roadways, parking, sidewalks, utilities, and other site improvements;
- (10) The location of the proposed limit of disturbance (LOD), soil types as designated by the USDA Soil Conservation Service for Dorchester County, wetlands, forest conservation areas, floodplain, steep slopes, and other areas to be protected during construction;
- (11) The boundary and designation of any Critical areas;
- (12) Preliminary estimates of stormwater management requirements, the selection and location of Environmental Site Design practices to be used, and the location of all proposed points of discharge from the site;
- (13) A narrative that supports the sketch plan design and describes how Environmental Site Design will be implemented to the Maximum Extent Practicable;
- (14) A Certificate for review by the Dorchester County Department of Public Works;
- (15) A Certificate of approval by the Dorchester County Department of Public Works; and
- (16) Any other information required by the Dorchester County Department of Public Works.

B. Following sketch plan approval by the Dorchester County Department of Public Works, the owner/developer shall submit preliminary land development plans that reflect comments received during the previous review phase. Plans submitted for preliminary land 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 sketch plan review phase;

- (2) Final site layout, exact impervious area locations and acreages, proposed topography with contour lines at one (1) foot intervals for slopes of 5 % or less or two (2) foot intervals for more steeply sloped land, delineated drainage areas at all points of discharge from the site;
- (3) A written and bound hydrologic and hydraulic report including or prepared in accordance with the following:
 - (a) Stormwater runoff calculations for both pre-development and post-development conditions for peak discharge and pollutant removal;
 - (b) Stormwater volume computations for Environmental Site Design practices and quantity control structure;
 - (c) Geotechnical investigations including soil maps, borings, site specific recommendations, and any additional information necessary for the final stormwater management design;
 - (d) Hydrologic computations of the applicable Environmental Site Design and unified sizing criteria according to the Design Manual for all points of discharge from the site;
 - (e) Hydraulic and structural computations for all Environmental Site Design practices and structural stormwater management measures to be used;
 - (f) For all proposed detention basins and retention basins, and temporary sedimentation basins, the documentation shall include a plotting or tabulations of storage volumes with corresponding water surface elevations and the outflow rates for those water surfaces;
 - (g) A plan showing the delineation of pre and post development drainage areas including the path used to determine the time of concentration;
 - (h) An analysis of all existing and proposed drainage conveyance facilities capacity. The analysis shall include any offsite watercourses determined to be potentially impacted by the Dorchester County Department of Public Works;
 - (i) A narrative that supports the final stormwater management design; and
 - (j) Any other information required by the Dorchester County Department of Public Works.
- (4) 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 Environmental Site Design and erosion and sediment control practices to be used;
- (5) A narrative that supports the preliminary land development design, describes how Environmental Site Design will be used to meet the minimum control requirements, and justifies any proposed structural stormwater management measure; and
- (6) Any other information required by the approving agency.

C. Following preliminary land development approval by the Dorchester County Department of Public Works, the owner/developer shall submit final erosion and sediment control and stormwater management plans that reflect 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). All information provided during the preliminary plan review phase;
- (2). Final erosion and sediment control plans shall be submitted according to COMAR 26.17.01.05;
- (3). 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;
- (4). An engineer's cost opinion for construction of all stormwater management facilities and practices;
- (5). A signed stormwater permit application;
- (6). Payment of permit fees. Permit fees will be determined after review of the cost opinion; and
- (7). Submittal of any required maintenance, conservation and development improvement agreements;

D. Construction drawings submitted for final stormwater management plan approval shall include, but are not limited to:

- (1) A location map in accordance with §134-5.1A.(1);
- (2) Existing and proposed topography and proposed drainage areas, including 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) A note on the plan indicating the ownership and maintenance responsibilities for all stormwater management facilities;
- (7) The delineation along with the signature and date of the person responsible, if applicable, of any on-site wetlands;

- (8) The delineation and basis for determination of the 100-year floodplain;
- (9) Structural and construction details including representative cross sections for all components of the proposed drainage system or systems, and stormwater management facilities;
- (10) All necessary construction specifications;
- (11) A sequence of construction;
- (12) Data for total site area, disturbed area, new impervious area, and total impervious area;
- (13) A table showing the Environmental Site Design and unified sizing criteria volumes required in the Design Manual;
- (14) A table of materials to be used for stormwater management facility planting;
- (15) All soil boring logs and locations;
- (16) An inspection and maintenance schedule;
- (17) Certification by the owner/developer that all stormwater management construction will be done according to this plan;
- (18) A note that record drawings will be provided within 90 days following completion of construction;
- (19) A record drawing certification signature block to be executed after project completion;
- (20) A Certificate for review by the Dorchester County Department of Public Works;
- (21) The Plans need to identify the person responsible for preparation of the stormwater management plan; and
- (22) Any other information required by the Dorchester County Department of Public Works.

§134-5.2 Preparation of Stormwater Management Plans

A. The design of stormwater management plans shall be prepared by any individual whose qualifications are acceptable to the Dorchester County Department of Public Works. The design shall be prepared by 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 Best Management Practice requires either a dam safety permit from the Maryland Department of the Environment or small pond approval from the Soil Conservation district the Dorchester County Department of Public Works shall require that the design be prepared by a professional engineer licensed in the State.

ARTICLE 6 Permits

§134-6.0 Permit Requirement

A grading or building permit may not be issued for any parcel or lot unless final erosion and sediment control and stormwater management plans have been approved by the Dorchester County Department of Public Works as meeting all the requirements of the Design Manual and this Chapter. Where appropriate, a building permit may not be issued without:

- A. Recorded easements for the stormwater management facility and easements to provide adequate access for inspection and maintenance from a public right-of-way;
- B. A recorded stormwater management maintenance agreement as described in §134-9.1 of this Chapter; and
- C. A performance bond as described in Article 7 of this Chapter.

§134-6.1 Permit Fee

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 permit fee schedule shall be established by the Dorchester County Council based upon the relative complexity of the project and may be amended from time to time.

§134-6.2 Permit Suspension and Revocation

Any grading or building permit issued by Dorchester County may be suspended or revoked 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 practice; and

E. An immediate danger exists in a downstream area in the opinion of the Dorchester County Department of Public Works.

§134.6.3 Permit Conditions

In granting an approval for any phase of land development, the Dorchester County Department of Public Works may impose such conditions that may be deemed necessary to ensure compliance with the provisions of this Chapter and the preservation of public health and safety.

**ARTICLE 7
Performance Bond**

§134-7.0 Performance Bond

The Dorchester County Department of Public Works shall require from the developer a surety or cash bond, irrevocable letter of credit, or other means of security acceptable to the Dorchester County Department of Public Works prior to the issuance of any building and/or grading permit for the construction of a development requiring stormwater management. The amount of the security shall not be less than one hundred and twenty (120%) percent of the total estimated construction cost of all stormwater management facilities. The amount of security shall be based on the construction cost of all stormwater management facilities including swales construction Environmental Site Design practices, erosion and sedimentation control measures, road drainage facilities, final site restoration and seeding and include an allowance for inspection and preparation and approval of record drawings. The bond required in this section shall include provisions relative to forfeiture for failure to complete work specified in the approved stormwater management plan, compliance with all of the provisions of this Chapter, and other applicable laws and regulations, and any time limitations. The bond shall not be fully released without a final inspection of the completed work by the Dorchester County Department of Public Works, submission of record drawings, and certification of completion by Dorchester County Department of Public Works that all stormwater management facilities comply with the approved plan and the provisions of this Chapter. A procedure may be used to release parts of the bond held by the Dorchester County Department of Public Works after various stages of construction have been completed and accepted by the Dorchester County Department of Public Works. The procedures used for partially releasing performance bonds must be specified by the Dorchester County Department of Public Works in writing prior to stormwater management plan approval.

**ARTICLE 8
Inspection**

§134-8.0 Inspection Schedule and Reports

A. Upon presentation of proper credentials, duly authorized representatives of the Dorchester County Department of Public works may enter at reasonable times upon any property within the County to investigate or ascertain the condition of the subject property in regard to the condition of the subject property in regard to any aspect regulated by this Chapter. The Property Owner shall grant to the County, or its agents, access to the site of the work at all times, while under

construction, for the purpose of inspecting the work.

B. Prior to the commencement of any site work the developer shall schedule a preconstruction conference with the Department of Public Works and Soil Conservation District. The developer shall notify these agencies a minimum of five (5) business days in advance to schedule the preconstruction meeting.

C. The developer shall notify the Dorchester County Department of Public Works at least 48 hours (two (2) business days) before commencing any work in conjunction with site development, the stormwater management plan, and upon completion of the project.

D. Regular site observations shall be made and documented for each Stormwater Management Permit issued including the use of Environmental Site Design planning techniques and practices at the stages of construction specified in the Design Manual by the Dorchester County Department of Public Works, its authorized representative, or certified by a professional engineer licensed in the State of Maryland. At a minimum, all structural, Environmental Site Design and other nonstructural practices shall be reviewed prior to construction, upon completion of final grading, the establishment of permanent stabilization, and before issuance of use and occupancy permit by the Dorchester County Planning and Zoning Department.

E. Written observation 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.

F. 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.

G. No work shall proceed on the next phase of development until the Dorchester County Department of Public Works reviews and accepts the work previously completed and furnishes the developer with the results of the inspection reports as soon as possible after completion of each required inspection.

§134-8.1 Additional Inspection Requirements 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 collars 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 foundations and trenches;
- (d) During embankment construction; and
- (e) Upon completion of final grading and establishment of permanent stabilization.
- (2) Wetlands – at the stages specified for pond construction in §134-8.2 A.(1) of this Chapter, 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 under drain 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 §134-8.2 A.(1) of this Chapter and during placement and backfill of under drain systems.
- (5) For filtering systems:
- (a) During excavation to subgrade;
 - (b) During placement and backfill of under drain 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 under drain 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 Dorchester County Department of Public Works 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 Dorchester County Department of Public Works 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 in 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, record plan certification shall be submitted by either a professional engineer or professional land surveyor licensed in the State of Maryland to ensure that Environmental Site Design planning techniques, treatment practices, and structural stormwater management measures and conveyance systems comply with the specifications contained in the approved plans. Record plan certification shall meet the requirements of the Department of Public Works.

E. The Dorchester County Department of Public Works shall submit a 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. The type, number, total drainage area, and total impervious area treated by all Environmental Site Design techniques and practices shall be reported to the Administration on a site by site basis. If Best Management Practices requiring Soil Conservation District approval are constructed, notice of construction completion shall also be submitted to the appropriate Soil Conservation District.

ARTICLE 9 Maintenance

§134-9.0 Maintenance Inspection

A. The Dorchester County Department of Public Works shall ensure that preventative maintenance is performed by inspecting all Environmental Site Design treatment systems and structural stormwater management measures. Inspection shall occur during the first year of operation and at least once every 3 years thereafter. In addition, a maintenance agreement between the owner and the Dorchester County Department of Public Works shall be executed for privately-owned Environmental Site Design treatment systems and structural stormwater management measures as described in §134-9.1 of this Chapter.

B. Inspection reports shall be maintained by the Dorchester County Department of Public Works for all Environmental Site Design treatment systems and structural stormwater management measures.

C. Inspection reports for Environmental Site Design treatment systems and structural stormwater management measures shall include the following:

- (1) The date of inspection;
- (2) Name of inspector;
- (3) An assessment of the quality of the stormwater management system related to Environmental Site Design treatment practice efficiency and the control of runoff to the Maximum Extent Practicable;
- (4) The condition of:
 - (a) Vegetation or filter media;
 - (b) Fences or other safety devices;
 - (c) Spillways, valves, or other control structures;
 - (d) Embankments, slopes, and safety benches;
 - (e) Reservoir or treatment areas;

- (f) Inlet and outlet channels or structures;
- (g) Underground drainage;
- (h) Sediment and debris accumulation in storage and forebay areas;
- (i) Any nonstructural practices to the extent practicable; and
- (j) Any other item that could affect the proper function of the stormwater management system.

(5) Description of needed maintenance.

D. Upon notifying an owner of the inspection results, the owner shall have 30 days, or other time frame mutually agreed to between the Dorchester County Department of Public Works and the owner, to correct the deficiencies discovered. The Dorchester County Department of Public Works shall conduct a subsequent inspection to ensure completion of the repairs.

E. If repairs are not properly undertaken and completed, enforcement procedures following §134-9.2 C. of this Chapter shall be followed by the Dorchester County Department of Public Works.

F. If, after an inspection by the Dorchester County Department of Public Works, the condition of a stormwater management facility is determined to present an immediate danger to public health or safety because of an unsafe condition, improper construction, or poor maintenance, the Dorchester County Department of Public Works shall take such action as may be necessary to protect the public and make the facility safe. Any cost incurred by the County shall be assessed against the owner(s), as provided in §134-9.2 C. of this Chapter.

§134-9.1 Maintenance Agreement

A. Prior to the final approval of a stormwater management plan, The Dorchester County Department of Public Works shall require the applicant or owner to execute a Stormwater Management Facilities and Sediment Control Construction, Inspection and Maintenance Agreement and Declaration of Easement binding on all subsequent owners of land served by a private stormwater management facility. Such agreement shall provide for access to the facility at reasonable times for regular inspections by the Dorchester County Department of Public Works 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 County in the land records of the County.

C. The agreement shall also provide that, if after notice by the Dorchester County Department of Public Works to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) within a reasonable period of time (30 days maximum), the Dorchester County Department of Public Works may perform all necessary work to place the facility in proper working condition. The owner(s) of the facility shall be assessed the cost 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 ordinary taxes by the County.

§134-9.2 Maintenance Responsibility

A. The owner of a property that contains private stormwater management facilities installed pursuant to this Chapter, or any other person or agent in control of such property, shall maintain in good condition and promptly repair and restore all Environmental Site Design 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 or newly submitted plans.

B. A maintenance schedule shall be developed for the life of any structural stormwater management facility or system of Environmental Site Design practices and shall state the maintenance to be completed, the time period for completion, and the responsible party what will perform the maintenance. This maintenance schedule shall be printed on the approved stormwater management plan.

C. No person shall modify, remove, fill, landscape or alter stormwater management facilities and/or Environmental Site Design practices which have been installed on a property unless a Stormwater Management Permit has been obtained to permit such modification, removal, filling, landscaping or alteration. No person shall place any structure, fill, landscaping or vegetation into a stormwater management facility, a Environmental Site Design practice or within a drainage easement.

ARTICLE 10 Appeals

§134-10.0 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 the Chapter in regard to a specific application, shall have the right to appeal the action to the Dorchester County Planning Commission. The appeal shall be filed in writing within 30 days of the date of official transmittal of the final decision or determination to the applicant, state clearly the grounds on which the appeal is based.

ARTICLE 11 Waiver of Liability

§134-11.0 Waiver of Liability

The making of any administrative decision by the County or any of its officials or employees shall not constitute a representation, guarantee or warranty of any kind by the County of the practicality or safety of any proposed structure or use with respect to damage from erosion,

sedimentation, stormwater runoff, flood, or any other matter, and shall create no liability upon or give rise to any cause of action against the County and its officials and employees.

**ARTICLE 12
Severability**

§134-12.0 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 Dorchester County Council that this Chapter shall stand, even if a section, subsection, sentence, clause, phrase, or portion may be found invalid.

**ARTICLE 13
Penalties**

§134-13.0 Penalties

Any person convicted of violating the provisions of this Chapter shall be guilty of a misdemeanor, and upon conviction thereof, shall be subject to a fine of not more than Five Thousand Dollars (\$5,000.00) or imprisonment not exceeding 1 year or both for each violation with costs imposed in the discretion of the court not to exceed Fifty Thousand Dollars (\$50,000.00). Each day that a violation continues shall be a separate offense. In addition, the Dorchester County Council may institute injunctive, mandamus or other appropriate action or proceedings of law to correct violations of this Chapter. Any court of competent jurisdiction shall have the right to issue temporary or permanent restraining orders, injunctions or mandamus, or other appropriate forms of relief.

**ARTICLE 14
Compatibility**

§134-14.0 Compatibility

Permits and approvals issued pursuant to this Chapter do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or chapter. If more stringent requirements concerning regulation of stormwater or erosion and sedimentation control are contained in the other Code, rule, act or chapter, the more stringent regulation shall apply.

**ARTICLE 15
Additional Provisions**

§134-15.0 Critical Area Protection

A. Intent. The intent of this section is to control the adverse water quality and quantity impacts of stormwater so as to protect water resources and natural habitat associated with the Chesapeake Bay, in compliance with the Critical Area Law (Natural Resources Article of the Annotated Code of Maryland, s 8-1801 et seq.).

B. Interpretation. The provisions of this section are in addition to other regulations within this chapter. In all cases of conflicting requirements, the provision which represents the greatest restriction or highest standard shall govern.

C. Definitions. The following definitions shall be used for the purpose of interpreting and applying this section:

(1) "Cluster Development" means a predominantly residential development in which dwelling units are concentrated in a selected area or selected areas of the development tract, so as to provide natural habitat or other open space uses on the remainder of the tract.

(2) "Critical Area" means all waters of and lands under the Chesapeake Bay and its tributaries to the head of tide, all state and private tidal wetlands, and all land and water areas within one thousand (1,000) feet of the landward boundary of heads of tides and state or private tidal wetlands, as modified pursuant to Natural Resources Article, §8-1807.

(3) "Development Area" means a land classification within the critical area that recognizes existing land uses and serves as a basis for future growth limitations and other controls.

(4) "Development areas" include intensely developed areas, limited development areas and resource conservation areas.

(5) "Excessive Stormwater Runoff" means all increases in stormwater resulting from:

- (a) An increase in the imperviousness of the site, including all additions to buildings, roads and parking lots;
- (b) Changes in permeability caused by compaction during construction or modifications in contours, including the filling or drainage of small depression areas;
- (c) Alteration of drainage ways or regarding of slopes;

- (d) Clearing of forest land; or
- (e) Installation of collection systems to intercept street flows or to replace swales or other drainage ways.

(6) “Habitat Protection Area” means a site or zone of special significance that provides a living environment for valuable plant or animal species. “Habitat protection areas” include the tidewater buffer, Nontidal wetlands, habitat for species of concern, plant and wildlife habitat and anadromous fish propagation wastes.

(7) “Intensely Developed Area” means an area of twenty (20) acres or more where residential, commercial, industrial and institutional land uses predominate, and where relatively little natural habitat occurs. “Intensely developed areas” have a residential density equal to or greater than four (4) dwelling units per acre; a concentration of commercial, industrial or institutional uses; or public water and sewerage systems with a residential density greater than three (3) dwelling units per acre.

(8) “Limited Development Area” means an area which is currently developed in low- or moderate-intensity uses, but also contains natural plant and animal habitat areas. The quality of stormwater runoff from these areas has not been substantially altered or impaired. “Limited development areas” have a residential density ranging from one (1) dwelling unit per five (5) acres up to four (4) dwelling units per acre; no domination by surface water, wetlands, agriculture, forests, barren land or other open space uses; or a public water or public sewerage system.

(9) “Nonpoint Source Pollution” means pollution generated by diffuse land use activities rather than from an identifiable or discrete facility. It is conveyed to waterways through natural processes, such as rainfall, storm runoff or groundwater seepage rather than by deliberate discharge.

(10) “Offset” means structures or actions that compensate for undesirable impacts.

(11) “Resource Conservation Area” means an area characterized by natural environments, such as wetland or forests, or by resource utilization activities, such as agriculture or surface mining. “Resource conservation area” has a residential density less than one (1) dwelling unit per five (5) acres or domination by surface water, wetland, agriculture, forests, barren land or other open space uses.

(12) “Tidewater Buffer” means a protective vegetated area established landward from the mean high-water line of tidal waters, tributary streams and tidal wetlands. The width of the buffer is a minimum of two hundred (200) feet, and will be expanded beyond one hundred (100) feet to include contiguous, sensitive areas of Nontidal wetlands, soils with high erosion potential and certain hydric soils. (A more precise definition of “tidewater

buffer” can be found in the Dorchester County Critical Area Protection Program, Volume 1 Chapter 5, reference to which is hereby being made and the same is hereby incorporated herein by reference.)

(13) “Water Dependent Facility” means a structure or works associated with industrial, maritime, recreational, educational or fisheries activities that requires a location at or near the shoreline and within the tidewater buffer. Examples of these activities include ports, water-use industries, marinas and beaches.

D. General regulations.

(1) All development activity and other land disturbance in the critical area shall be planned and executed so as to improve or maintain surface water and groundwater quality, minimize the quantity of stormwater runoff and promote groundwater recharge.

(2) Sediments, nutrients and potentially harmful or toxic substances in stormwater runoff shall be removed or reduced in the tidewater buffer. Nonpoint source pollution and other adverse stormwater impacts that may result from water-dependent facilities shall be minimized.

(3) Stormwater management measures designed to prevent the runoff of pollutants are not required on sites where the topography prevents runoff from directly or indirectly entering tidal waters.

(4) To reduce the extent of impervious areas and maximize areas of natural vegetation, cluster development shall be used where practicable in planning for future development. Impervious surfaces are prohibited in the tidewater buffer, except for those necessarily associated with water-dependent facilities.

E. Intensely developed areas.

(1) At the time of development or redevelopment in intensely developed areas, stormwater management technologies shall be implemented to minimize adverse water quality impacts caused by stormwater. Stormwater pollution abatement practices shall be employed to achieve the ten-percent pollution reduction recommended by the Chesapeake Bay Critical Area Commission, to the extent that this target figure is measurable. If these on-site abatement measures cannot achieve sufficient pollution reduction, then stormwater pollution offsets shall be provided as follows:

(a) In the case of new development, offsets shall be used if they reduce pollutant loadings by at least ten percent (10%) of the predevelopment levels.

(b) In the case of redevelopment, if on-site practices do not reduce pollutant loadings by at least ten percent (10%) below the level of pollution on the site prior to redevelopment, then offsets shall be provided.

(c) Offsets may be provided either on or off the site, provided that water quality benefits are equivalent, that their benefits are obtained within the same watershed and that the benefits can be determined through the use of modeling, monitoring or other computation of mitigation measures.

(2) Permeable areas shall be established in vegetation, and redevelopment shall reduce existing levels of pollution. The use of retrofitting measures to address existing stormwater management problems is encouraged.

F. Limited development areas.

(1) No development in limited development areas shall cause downstream property, watercourses, channels or conduits to receive stormwater runoff at a higher volume or rate than would have resulted from a two-year frequency storm were the land in its predevelopment state. All development activities that must cross or affect streams shall be designed to avoid adverse water quality and quantity impacts from stormwater.

(2) All stormwater storage facilities shall be designed with sufficient capacity to achieve the water quality goals of the Dorchester County Critical Area Protection Program, and to eliminate all runoff caused by development in excess of that which would have come from the site if it were in its predevelopment state.

(3) Public water-oriented recreation or education areas in the tidewater buffer shall incorporate permeable surfaces, provided that no groundwater degradation would result.

G. Resource Conservation Areas.

(1) No development in resource conservation areas shall cause downstream property, watercourses, channels or conduits to receive stormwater runoff at a higher volume or rate than would have resulted from a two-year frequency storm were the land in its predevelopment state. All development activities that must cross or affect streams shall be designed to avoid adverse water quality and quantity impacts from stormwater.

(2) All stormwater storage facilities shall be designed with sufficient capacity to achieve the water quality goals of the Dorchester County Critical Area Protection Program, and to eliminate all runoff caused by development in excess of that which would have come from the site if it were in its predevelopment state.

(3). Public water-oriented recreation or education areas in the tidewater buffer shall incorporate permeable surfaces, provided that no groundwater degradation would result.

SECTION TWO: BE IT FURTHER ENACTED AND ORDAINED BY THE COUNTY COUNCIL OF DORCHESTER COUNTY, MARYLAND that General Code Publishers is directed to codify new Chapter 134 in the Dorchester County Code accordingly.

SECTION THREE: BE IT FURTHER ENACTED AND ORDAINED BY THE COUNTY COUNCIL OF DORCHESTER COUNTY, MARYLAND that this Bill shall be known as Bill No. 2010-12 of Dorchester County, Maryland and shall take effect sixty (60) days after its final passage.

PASSED This 22nd DAY OF June 2010.

ATTEST:

THE COUNTY COUNCIL OF
DORCHESTER COUNTY,
MARYLAND

BY: Jane Baynard
JANE BAYNARD
County Manager

BY: Jay L. Newcomb
JAY L. NEWCOMB
President

APPROVED this 22nd day of June 2010.

ATTEST:

THE COUNTY COUNCIL OF
DORCHESTER COUNTY, MARYLAND

BY: Jane Baynard
JANE BAYNARD, County Manager

BY: Jay L. Newcomb
JAY L. NEWCOMB, President

NICHOLS - aye

NEWCOMB- aye

ELZEY- aye

PRICE- aye

TRAVERS- aye

BILL NO. 2010-12